The key to time

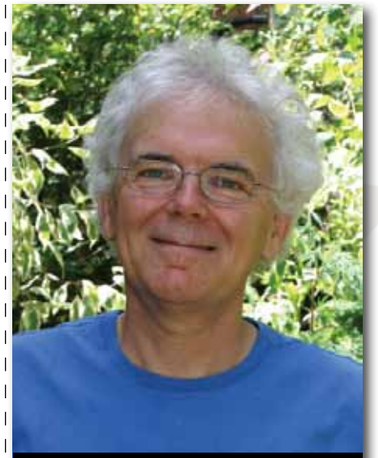
***Tony Attwood** explains what to do when a child simply doesn't understand time*

Ask a physicist about the concept of time and you might find yourself lost after a couple of seconds. Not because physicists can't express themselves, but rather because time turns out to be an incredibly complex and ill-understood phenomenon.

However, the overwhelming majority of us understand it enough to work with the notion of time day by day. We may not understand exactly how time works on a universal basis, but we've got a pretty good idea how long it is until the next train leaves. Which makes it all the stranger that there are some people for whom time is meaningless. The sequence of the days of the week, the notion of the weekend, the length of a minute, the bus timetable; for a sizeable minority these are as abstract and remote as quantum mechanics.

For most sufferers from time-blindness, the ultimate cause of their problem is genetic: they are either dyslexic or, more likely, dyscalculic. What this means in practical terms is that they are likely to have short-term memory difficulties and, if dyscalculic, no intuitive understanding of number sequences. This is a highly problematic situation, for living with time-blindness is as troublesome as living with an inability to read or to do basic maths. It cuts you off from the daily events of life, and leaves you dependent on others to ensure that you get to the right place at the right time.

But there is a solution. It takes a little time and patience to put in place, but it is workable and will leave most children fully able to function in a time-dependent society. The method is simple: the parent or teacher working with the time-blind child takes time apart and rebuilds it from the beginning. At each point, the concept of time is related to real life experiences. By way of example, let's consider the very first thing we do with people who suffer from this disability. We ask the question "what did you do today?" With some prompting (and ignoring the fact that some of the answers might relate to yesterday, or last week, or some other time) we might get a list which includes waking up, getting dressed, having lunch, going to school, and so on.


Tony Attwood

> *"The method is simple: the parent or teacher...takes time apart and rebuilds it from the beginning."*

This list is written down on a set of cards, and then we aim to work with the individual to put these events into four groups: morning, afternoon, evening and night. Some time-blind people will be able to do this, recognising that one goes to school in the morning, not the evening. But even where the time-blindness is so strong that this is not possible, one can normally edge the individual towards an accurate positioning of each card. If the process is a struggle, it can be repeated in subsequent sessions with some new daily events added.

Having established the four parts of each day, we then move on to these elements of time in detail, starting with the morning. We ask questions, leading from "what do you do in the morning?" through to "how do you know it is morning?" and "when does morning begin?" Some of these questions have a whole variety of answers, and much of the time we will accept whichever answer the individual wants to give us.

From here, we move on to a "morning sequence" in which we try and incorporate as many events as possible into a sequence, all based around the morning. We may do this over several days, and then repeat the operation for the afternoon. Eventually, we have the four parts of the day established, described and set out in a time line. Our first excursion into the meaning of time is complete. For some people this might be little more than a revision exercise, for others it can be a complex journey taking a number of sessions; the key issue is for the individual to be secure in the knowledge before moving on.

> *"...for a person who is time-blind, the clock is a meaningless concept."*

When we are ready to go forward, we then have another major issue to look at: the week. We establish the number of days, and set out a pack of seven cards which have to be put in order. Once we have the order we can also add some details about certain days. We might ask, at this stage, "What is special about a Sunday?" (shops are shut, we get up late, we have fried breakfast…) Many of these "Sunday concepts" won't be joined together by the time-blind person, but, by being set out in this way, and then recited each time the Sunday card is put down, they become real and become linked to "Sunday".

So we proceed step by step, covering different time periods. We find that working in sequence, for example starting with seconds and ending with centuries, is not necessarily the best way forward. Working with what seem to be more meaningful units of time ("morning" or "Sunday") early on helps us secure the meanings related to the individual's life.

Thus it is that, after the week, we move to the seasons, then back to the months, and then the days of the month. From here it is back to minutes, seconds and hours, before jumping on to the year, weeks, decades, centuries and then finally onto the clock. The point here is that there is also constant revision, and constant referencing of the time periods to the individual's experience. And the clock is only introduced once everything else is secure.

This is where our approach is so different from the conventional method of teaching the time, but the fact is, for a person who is time-blind, the clock is a meaningless concept. Only when the meaning behind the concept of "time" is in place can the clock, and hence the bus timetable, be made real.

As we move through the process, we relate time to the physical properties of the universe: the rising and setting sun, the phases of the moon, the seasons and so on. This ultimately shows that time has some sort of origin and meaning beyond ourselves. But, for the most part, we work with the individual and how time affects him or her.

Of course, some people find it hard to believe that anyone can have such problems with the notion of time. If you come across a parent of a pupil who expresses this view you might care to give that parent this problem to solve:

You suddenly find yourself on an alien planet. There are three suns in the sky and the red one is just rising above the distant mountain. You can also make out two moons near the horizon which you are told is "the south". By your side is a device which contains 17 different characters. How long is it to New Year's Eve?

Trying to answer that question from the information given is what it is like to be time-blind.

Futher information

Tony Attwood is author of *The Key To Time*, a book of activities for children who have difficulties with the sequences of time. It is published by First and Best in Education. For further information visit: **www.firstandbest.co.uk**