

Anton Coenen: most wanted sleep specialist in The Netherlands



Doctor A.ML Coenen is a professor at the University of Nijmegen in the Netherlands, where he's teaching biological psychology. After completing his doctorate in biology, he specialised in anaesthetics and undertook extensive medical research of animals. Eventually his focus shifted to humans, and in observing different sleep phases he has tried to uncover the relationship between sleep and memory tracing.

We all know the effect of a bad night's sleep: we're moody, irritable, more sensitive and it's so much harder to concentrate. The importance of sleep is still underestimated, but people are becoming increasingly aware of its significance. That's why Anton Coenen is frequently in demand as a lecturer on sleeping matters by all kind of institutes. 'Once they find you, it works like a snowball, but I like to do this, it is interesting for me to look over the walls of the academic world. Also for the bedding industry, I'm becoming a regular. It started in the Netherlands, where I was asked by a cushion manufacturer. More recently, mattress manufacturers and the national bedding federation approached me. I was happily surprised when I was told that the European Bedding Industry Association (EBIA) was going to nominate me,' explains Coenen.

Two theories

The work of Coenen explores the two major theories about memory tracing: Basically, there are two theories about memory tracing: one has to do with the fact that our memory storage is multi-layered and the quality of memory tracing is related to the moment of the day or the night. The other theory relates to the famous REM-sleep stages, which asserts that the active memory storage mechanism takes place during rapid eye movement sleep. What we know for sure is that the deep sleep, in the beginning of the night, is of life importance. The more sleep we get, the longer our REM-intervals last. The theory of the REM-sleep as the major memory restorer is gaining ground recently.

Compared to the other nominated professors, Coenen is not leading a sleeping lab. 'We maintain contact with the University of Amsterdam, where we can make use of two sleeping rooms for the cases we might need them. Although when I do this I'm not even on site, as we have students on location that can do the observational work.' For Coenen sleep is not a single-issue field. 'Generally, people in the Netherlands are already very well informed about sleeping, and even about the optimal sleeping conditions and bedding products. Journalists are interested in sleeping matters and they like to let the people know what's going on during the night. When there's a heatwave, I usually get calls from journalists. One of the triggers of our sleep is a lower body temperature. When it's too hot, our body temperature can't cool down and it's harder to fall asleep. It's easier to sleep when there is not too much light and not too much noise in the room, although it is not essential to have complete darkness or silence. That's why earplugs are not really necessary. Human beings even fall asleep with familiar noises, but they also wake up when there is an unfamiliar noise. A thief making weird noises in the night will draw the attention of a healthy person, even when he's in a deep sleep. This kind of selective vigilance during the sleep can be of vital interest. It proves that even when we are asleep, we are attentive for strange, unfamiliar noises and also for very familiar noises like our children.'

Coenen also turns his attention to the matter of the ideal bed surface. 'Ideally the room temperature should be between 16 to 18 ° Celsius. The surface of a good quality bed should be thermo-neutral. That means there is minimal temperature exchange between the bed and its surrounding or the bed surface and the sleeping body. By doing research for the cushion industry, we found out that body movement is very important. A healthy person moves a lot during the night in both directions. It's still a myth that most people fall asleep on their left side and wake up on the right. But by doing these surveys, we concluded that the ideal width of the bed should be slightly more than the average in the Netherlands. The wider the bed, the more space for body movement - certainly for those sleeping with a partner. To come back to the relation with body temperature: for our sleep it is better to keep distance from our partner, because a partner works like a radiator or an oven and makes you feel hot during the night.'

Amazing evolution

And if the heat generated by a partner isn't a problem, Coenen's work also touches on that other tension trigger: snoring. 'The knowledge about our sleep has developed amazingly over the last decades. There is an effective system to help people with their snoring habits. It uses a very simple method, based on a little pump that blows oxygen into a mask when a person snores. The oxygen is making the person change their way of breathing. In Scandinavia they also developed a cushion that stops people from snoring, by blowing up and repositioning the neck. Isn't that a great discovery?'

Between 6.5 and 8.5 hours

According to Coenen, more than 95 % of people sleep between 6.5 and 8.5 hours per night. Less than 6.5 is quite rare and more than 8.5 is not necessary. Even when people say they haven't slept, sometimes they do not realise it. Some people say they've seen every hour of the clock, but they might have woken up five minutes before the hour and fallen asleep again five minutes after the hour. Of course there are exceptions, but often in these cases the underlying cause of the interrupted sleep has a medical background, like brain surgery or people whose sleeping zone in the brain is affected.

There is another myth that Coenen dispels: 'Having a long night sleep might feel great, but it's of no vital importance. The high quality, biologically necessary sleep, takes place in the very first part of the night. People who are deprived from sleeping during several days are simply dying. The organism needs restoring, physically and cognitively.' And while he acknowledges that sleeping tablets nothing new and have always been around, Coenen believes that behavioural therapy to get a better night's sleep is becoming far more professional and more frequently asked for. However, in his view, 'the majority of people stick to sleeping tablets, with resistance to alternative therapies remaining quite high'.