## Working Memory – your Mind's Muscle

Try calculating 13 times 6 mentally – really, go ahead and try!

Most people will begin by calculating  $10 \times 6$ , and put that result (60) to the side, then calculate  $3 \times 6$  (18), and then add the two together (78).

Did you do the same thing? If so, exactly where inside your mind did the "60" sit, while you were busy with the second calculation? Well, the neuroscientists call this place, your



## Working Memory

Working Memory is your **ability to keep information mentally online**. You use it to keep plans for what to do next, to have access to relevant information when solving problems, to learn, and to understand long texts, by keeping the beginning of a sentence in mind as you reach the end of it.

Now, let's push your Working Memory a bit: try to mentally calculate  $13 \times 21 - go$  ahead and actually try to do it! It doesn't matter if you get it wrong or give up. The point is to *feel* what it is like to run out of working memory, and how useful it would be to have a bit more.

As you might feel when straining your Working Memory, it is closely related to your ability to **control attention**, as both of them make use of partly the same regions of your brain, in the parietal and prefrontal cortices.

People have different Working Memory capacities, and to some extent this is hereditary, but it is also (negatively) influenced by factors such as stress or brain injury.

Up until the 1990:s, most scientists believed that the **maximum capacity** of your Working Memory was fixed, genetically hard coded, and could never be influenced. But since then, a vast body of research has shown that it is indeed possible to expand your Working Memory, and thereby increase your ability to control attention, focus on difficult tasks, and solve complex problems. And it just makes sense – just as you can train to increase your endurance, strength, or balance, you can work your way to an increased Working Memory capacity.

It does however require some serious effort on your side–like any training–and you will need a dedicated training programme precisely designed for the task. **Cogmed** is the world's leading such training programme, with more scientific support than any other. With Cogmed, you get a host of carefully designed and curated interactive exercises, and a personal coach that helps you navigate through them.

