



Keynote Iris Engelhard at the EMDR Europe Conference

By Bianca Muller

With a large grant in her pocket, prof. Iris Engelhard, professor in *Transforming Academics to General Mental Health* is one of the top researchers in the Netherlands. We are proud that she will present at the EMDR Europe Conference in The Hague in June 2016.

When Engelhard was awarded her first grant in 2004, she aimed her research at the risk and protective factors for developing PTSD. Her grant of 2008 was used to study the working mechanisms of the eye movements. And now, in 2016, as a cherry on top of the already impressive research cake, she was awarded this new grant. These grants are all part of the Innovation Impulse: a competitive program which offers talented and creative researchers a personal financial impulse. Engelhard wants to utilize this new grant to connect these aforementioned research topics and extend it to relapse prevention of anxiety disorders.

It is well known that PTSD and other anxiety-related disorders are a serious problem, for the individual sufferer, but also for the (social) environment and the society as a whole. There are effective evidence based treatments, such as CBT and EMDR, but still almost a third of the patients benefit insufficiently. Engelhard currently investigates if a new form of psychological treatment for threatening anxiety disorders, aimed at weakening the anxiety related memories, can lead to better results.

"It is not permissible to conclude that when a treatment is ineffective that this 'simply is the way it is' and leave it at that. I want to conduct further research as to why this is and hope to contribute to improving treatments. When we understand how treatments work, only then can we research more detailed the precise mechanisms, thereby leading to more effective treatments and relapse prevention."

Iris Engelhard's keynote

At the EMDR Europe conference in The Hague in June 2016 Iris Engelhard will present a keynote "*Mechanisms of change in traumatic memories*". The aim of this keynote is to highlight the important developments in understanding the working mechanisms of EMDR. She will also present recent insights from experimental research in the lab as much as the clinical practice. Topics covered are the working memory theory, *memory-consolidation*, the effects of eye movements (in comparison to other dual tasks such as listening to audio stimulation or doing math) whilst retrieving an aversive memory and images of imagined future disastrous scenarios (i.e. *flashforwards*).

"At the EMDR Europe Congress, I will present the insights gained over the past few years and will show how this is applied. I will clarify why the eye movement component works well, but in particular what the underlying mechanism is as to why it works well."

Memory reconsolidation

Engelhard explains that a lot of us know the working memory theory as a possible explanation for the working mechanism of eye movements in EMDR. However, there is another possible explanation, which is the process of *memory reconsolidation*. "For more than a century it is known that new memories are temporarily instable before they are reassigned to long term memory (consolidation). Until recently it was thought that when emotional memories are consolidated these are carved in memory for definite.

Successful pioneering neurobiological research has shown that when a stored memory is reactivated, that this memory changes from a definite state to a temporary state and is thereby permeable before it is once again stored in long term memory.

What we do not know yet is when the emotional intensity of a memory decreases through EMDR, whether the person has created a new memory which competes with the old memory thereby suppressing the old memory, or whether the old memory has changed (reconsolidation). This is what future research needs to clarify."

What about flashforwards?

Engelhard explains that many mental images in anxiety disorders concern the future. In 2010 she became interested to find out whether eye movements are also effective for these future oriented images. Research findings on *flashforwards* suggest that EMDR has a wider clinical scope than only processing the past. "EMDR modifies mental images, and whether these are past or future related seems less relevant. Knowing this may have potential implications for relapse prevention." Even though many hypotheses have been formulated, there is still insufficient evidence to support this idea.

"We know something does change, but what and how? Again, one has to understand the mechanisms in order to be effective. Otherwise, you may risk offering a less effective treatment if you do not fully understand how it works."