

Intention and sustained attention



We have already explored in previous episodes of the Weekly Teaching the description by Dr Shanida Nataraja, of what happens in the brain when we meditate. Let me recap this briefly for those of you who have joined us recently. Research has proven that the two hemispheres of our brain have complementary functions. The front of our brain – the pre-frontal cortex – on the left side deals mainly with rational, logical, discursive thinking expressed in thoughts and language (but also indulges in daydreaming about how we would like life to be). The right pre-frontal cortex deals with empathy, connectedness and imagination/creativity, seeing the whole picture in context with feelings included. The right side needs the left side to verbalise what it is feeling and the left side needs the holistic picture with its intuitive insight to give meaning to what is happening. The two sides are therefore two different ways of seeing the world – two different organs of perception – the mind and the heart. Blaise Pascal (1623-1662) already drew attention to this fact: “The heart has its reasons that reason does not know.”

Here is where meditation comes in. We predominantly use the left side of our brain in our present culture, but by focusing one-pointedly on our prayer word, our mantra, we switch on the right side of our brain. Both hemispheres are used for attention: the left side has a narrow focused attention, keeping in mind the use something has. The following Zen saying captures this beautifully: “To her lover, a beautiful woman is a delight; to an ascetic, a distraction; to a wolf, a good meal.” But attention on the right side is in fact much broader and is the main operating centre for attention. Meditation practised as a

faithful discipline not only switches on the right side – often underused by many people – but also builds bridges, so we have access to both complementary views of reality – thus accessing a wider deeper awareness of reality. Paying one-pointed attention allows us to live inside of open awareness rather than be restricted to discursive thinking – in fact we become whole.

Let's look at how Shanida in her second edition of *The Blissful Brain* puts this process of both intention and attention and how it effects our staying in the present moment: “The meditator begins with the intention to clear their mind of thoughts. This intention is reflected in an increase in activity in the attention association area in the right prefrontal cortex. As the meditator slowly quietens the mind, in some cases by focusing on the gap between thoughts, or by ‘letting go’ of thoughts and returning to awareness of the present moment [through the use of the mantra in our case], there are further increases in activity in the attention association area. At the same time, activity in the brain regions that immediately surround the attention association area decreases. This is the result of sustained periods of focused attention and reflects the innate function of the brain to prioritize important information by deprioritizing less important information. Interestingly, for those meditators in whom the left hemisphere is dominant, sustained attention to the present-now experience triggers a shift to right-brained activity, as attention is predominantly a right-brained function. This shift from ‘intellectualized’ left-brained thinking is a further explanation of why the experience cannot be described or analysed: the right brain does not have the ability to categorize and analyse the experience; it intuitively ‘feels’ it. This shift to right-brained thinking allows the meditator to access a different mode of thinking and perceiving to that present in their everyday lives.

At the same time, the meditator also becomes less aware of sensory information stemming from their external environment. Changes in the attention association area influence activity in the thalamus.... the gateway to our senses, and activity in brain circuits connectingthe attention association and thalamus are thought to direct our attention, and thus our sensory awareness, only towards important sensory stimuli.

Imagine sitting in a room, with your eyes closed, body relaxed.... The information that our brain uses to form an image of our body in our mind is not available under these conditions: there is no visual input; no movement; and no interaction with the world. Slowly, therefore, our body image begins to fade and we also become less aware of our external environment.

This dissolving of the self/non-self boundary is reflected in a decrease in activity in the right parietal lobe. ...leading to a loss of sense of space and/or time, but it also has an impact on activity in the right verbal–conceptual association area, leading to an inability to convey the experience efficiently through language.”

Next week we will look at a question and answer session between a meditator and a neuroscientist.

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