

Bears, Imagination, and Well-Being

Please note: the first part of this document is based mainly on, or extrapolated from, the work of Paul Gilbert (2009 / 2010) and Panksepp (1998); from page 3 onwards an attempt is made to link these with visualisation practices, the frontal lobes, and meditation.

If we see a bear walking towards us, our Threat and Self-Protect systems will automatically set in motion a series of neuro-physiological processes as a result of which we will probably start moving away from the bear very rapidly – i.e. our flight system has been activated. This is represented schematically in Figure 1.

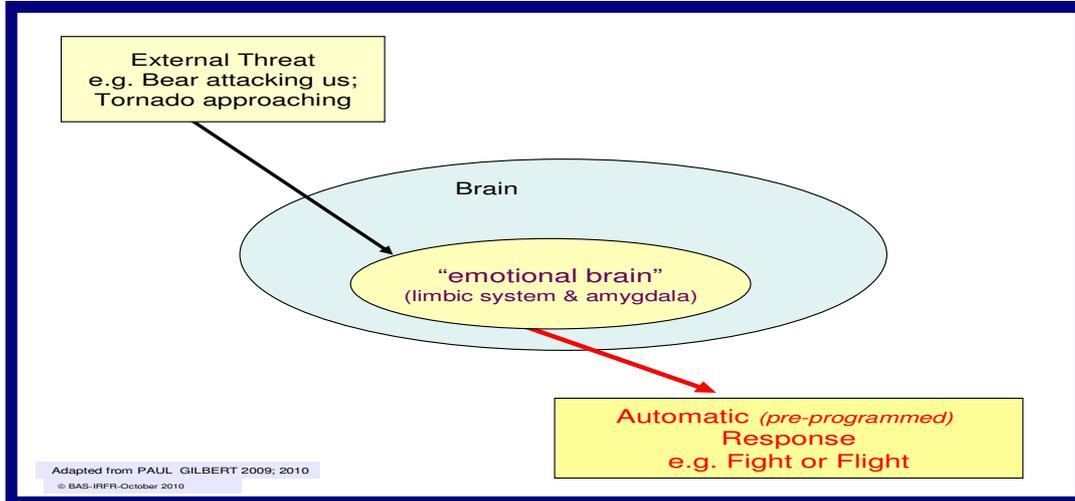


Figure 1

An external threat activates our Threat and Self-Protect system in the form of the Fight / Flight / Freeze response

Note:

- i. The Fight response is associated with the RAGE-circuits (Panksepp 1998).
- ii. The Flight (and Freeze) response is associated with FEAR-circuits (Panksepp 1998).
- iii. Anger is associated with increased blood to our upper limbs – and especially our hands.
- iv. Fear is associated with increase blood supply to our legs (Ekman 2008 p 41).
- v. It may be salutary for us to reflect on the implications of iii and iv above.

If we imagine a bear is approaching us, the same physiological processes will be activated, and this may therefore result in a feeling of fear and at the same time we may become aware that our heart is beating faster. So our imagination has activated our Threat and self-Protect system again, even though there is actually no bear.

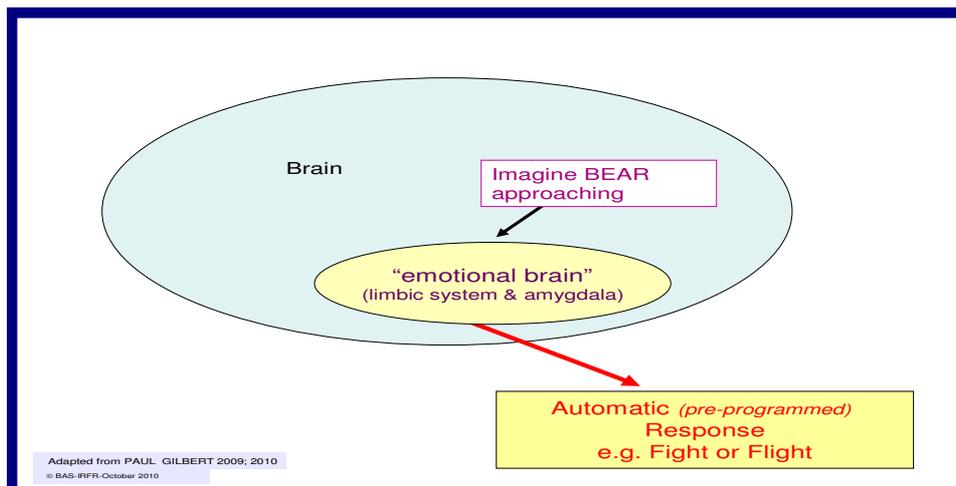


Figure 2

Imagining a bear approach has the same physiological effect as a real bear approaching

Now, if rather than imagining the bear, we imagine we are biting into our favourite fruit, we may find that our mouth waters. This is another example of our mental processes having an effect on our body and physiology / biochemistry – see Figure 3.

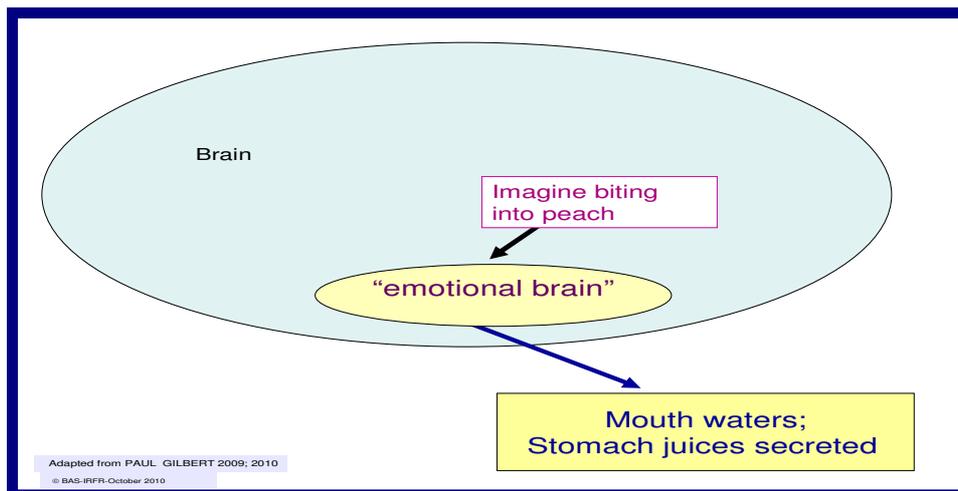


Figure 3

Imagining we are biting into a fruit changes our physiology

Now there are of course many external events that can affect our being and physiology (Figure 4); and many different types of events / happenings / emotions that we can imagine that will also affect our physiology (Figure 5).

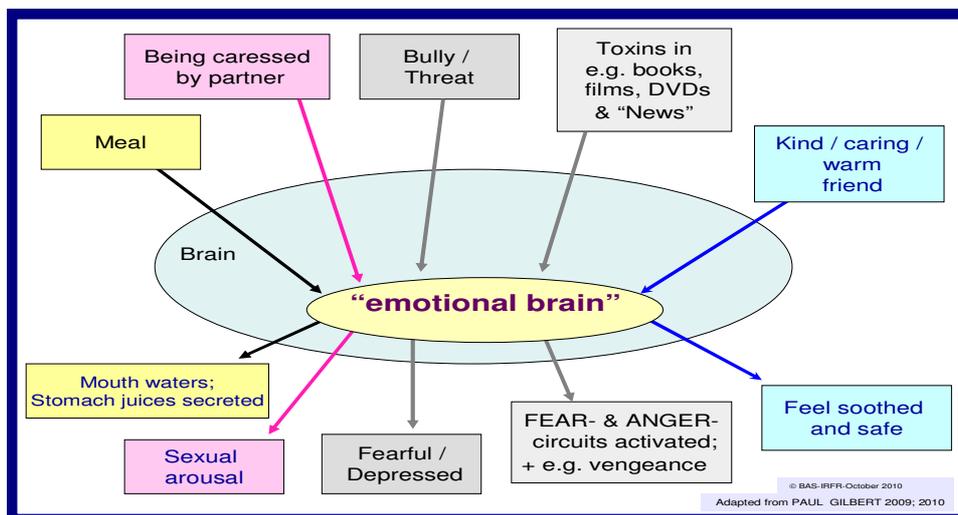


Figure 4

Some external events that affect our physiology / feelings / behaviour (highly schematic)

Note:

- These are of course just a few examples of the myriad external things that can affect us.
- Note that being bullied can lead to being both fearful and depressed; and can activate our FEAR circuits.
- By toxins in “books, films, DVDs etc and ‘News’”, we mean anything that is toxic to our Well-Being. Not only may such toxins stimulate our FEAR-circuits, they may also activate our RAGE-circuits and the feeling or desire for revenge.
- On the other hand, being in the company of a warm and compassionate friend can soothe us when we are emotionally disturbed or upset, and help us to feel safe and secure. At the same time, this may also stimulate our own nurturing and CARE-circuits, and thus our compassion.

Frequent activation of any of these circuits will tend to increasingly reinforce them, and thus make us more prone to their consequences. We become, as it were, what we allow to be reinforced. Now, not surprisingly, the same thing happens if we keep imagining any of the above – see Figure 5.

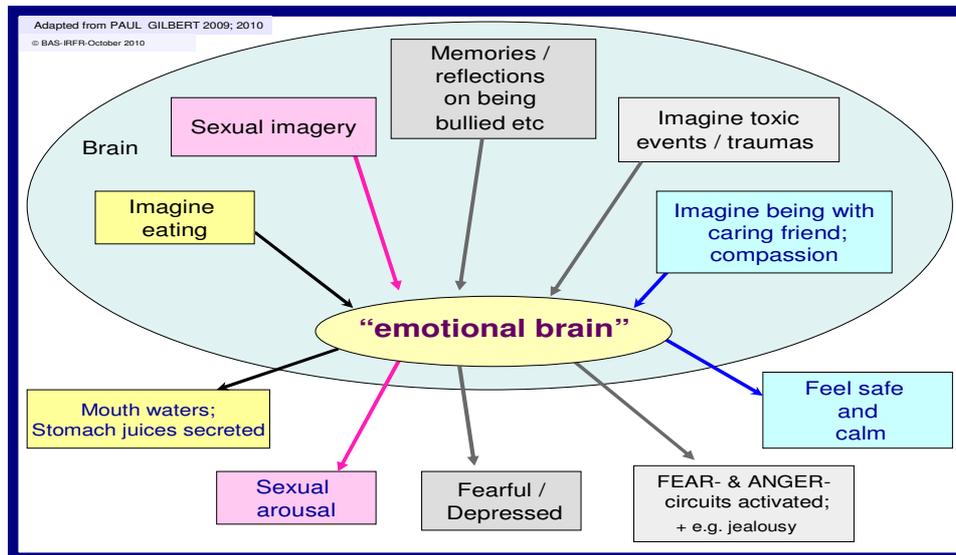


Figure 5
As we imagine, so we become

So imagination affects our physiology and being in many different ways. Recalling a tranquil scene from say a previous holiday can also induce feelings of safety and being calm (Benson 1996). Such a recall is schematically illustrated in Figure 6.

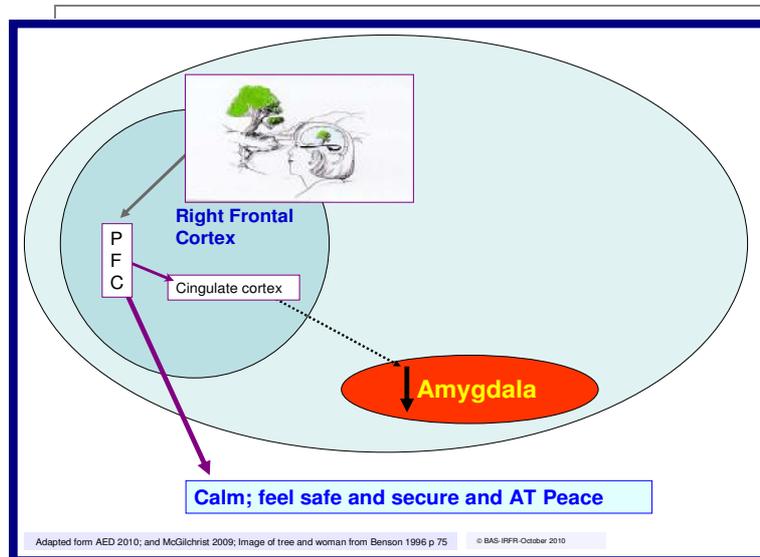


Figure 6
Imagining a tranquil scene from a holiday
Image of tree and woman imported from Benson 1996 p 75¹

Comments on Figure 6

- This is a simplified diagram illustrating the neuro-connections that may be involved.
- Imagery involves both hemisphere of the brain – but is thought to be particularly associated with the Right Frontal Cortex (McGilchrist 2009 p 127).
- Extrapolating from other research it seems probable that the Pre-Frontal Cortex is also involved, and it is known that this sends inhibitory impulses to the amygdala via the cingulate cortex.
- Reduced amygdala activity will be associated with reduced distress and reduced fears.
- At the same time, the PFC will induce feelings of calmness and tranquillity.

PFC: Pre-Frontal Cortex

Our Well-Being is thus affected greatly by what we allow ourselves to experience, our life style, and by our imagination (see also A3 - "Towards a concept of happiness and Well-Being").

Recent research also suggests that the use of positive imagination (imagery) can off-set both anxiety and depression (Holmes 2008; see also B7 - The Effects of Positive Imagination on Anxiety and Affect). This method is used by Dr Alastair Dobbin in his Positive Mental Training tapes in which it is suggested that we imagine a "safe place" to which we can return again and again. This is separate from, yet overlaps with, Benson's work. Indeed, the image of the tree and tranquil scene in the woman's head would be just such a "safe place".

Meditative type /

¹ With minor modifications.

Meditative type states and calming the mind

Finally, it is known that meditative type states can have a profound effect on calming the mind. See Figure 7.

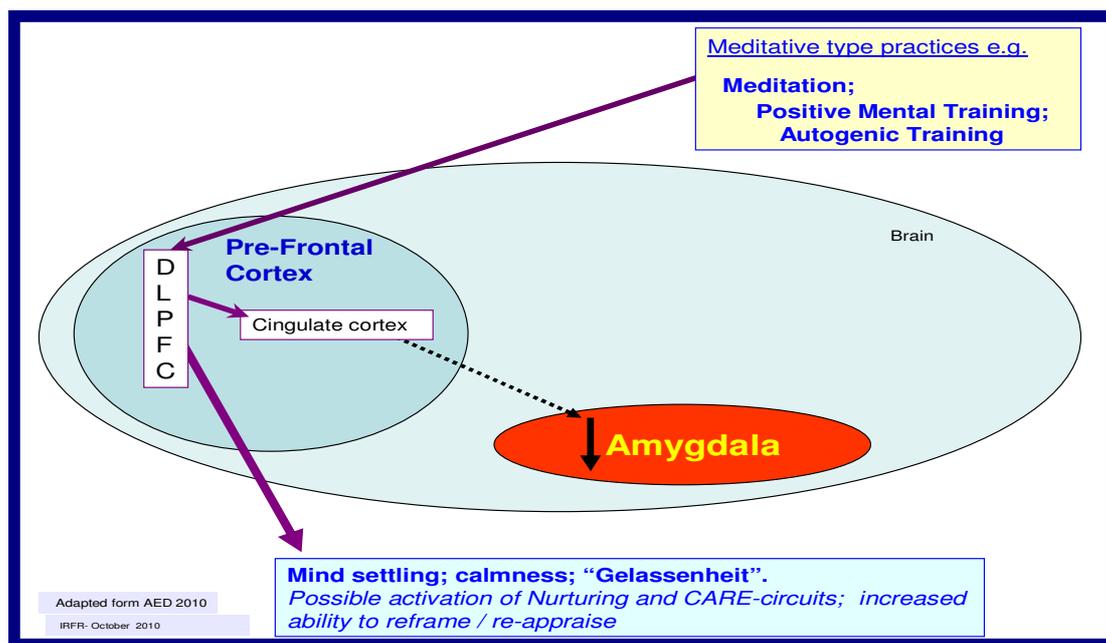


Figure 7
Meditative type states and calming the mind

Note:

- The meditative type states include practices such as Positive Mental Training and Autogenic Training.
- DLPFC: Dorso-Lateral Pre-Frontal Cortex.
- As in Figure 6, inhibitory signals are sent from the DLPFC to the Amygdala via the cingulate cortex, thus reducing distressing feelings and fears.
- "Gelassenheit" was the word used for the effect of Autogenic Training on our minds by Schultz and Wallnöfer (2000). It is difficult to translate but embraces concepts such as: calmness, peace of mind, composure; and "to let things happen".

Using positive imagination towards the end of an Autogenic sequence can be of particular value. One example would be imagining a tranquil scene on a previous holiday, as illustrated in Figure 6.

References and sources include

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Dobbin, Alastair: re Positive Mental Training: see: www.positiverewards.co.uk	
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Ross, Ian R.F. 2010. <i>Autogenic Dynamics – Stress, Affect Regulation, and Autogenic Therapy (p 271)</i>	ISBN 978-0-9563993-0-4
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Wallnöfer, Heinrich. 2000. <i>Autogenic Therapy: History – Development – Future.</i>	Schultz Memorial Lecture 11.11.2000.

Linked themes in this Autogenic Dynamics section

A3	Towards a concept of happiness and well-being
B3	Emotional Operating Neuro Circuits (<i>a brief introduction to Affective Neuroscience and the work of Panksepp</i>)
B4	Emotional Triggers and the Refractory Period
B7	The Effects of Positive Imagination on Anxiety and Affect