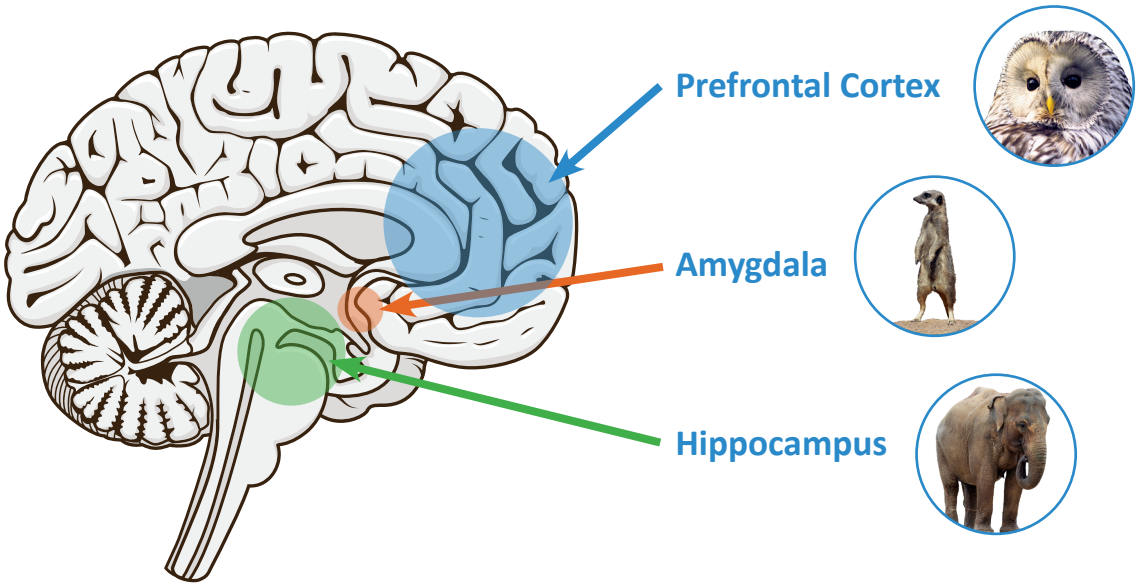
Understanding the Brain and Worry
Information for Parents and Carers

When working with children and young people who are worried or experiencing anxiety, it can be helpful to explore how the brain develops and responds when we are feeling worried or anxious.
As humans we have evolved over a long period of time, and in order to survive our bodies have developed the 'fight flight or freeze' response. This response gets switched on whenever humans are in danger and helps them to 'fight' (their way out of danger), 'flight' (run away from danger) or 'freeze' (staying really still until the danger has passed). You likely have seen these different responses from children or young people when they are feeling worried or anxious.

Worry and the Brain- The Meerkat, Elephant and Owl

There are 3 areas of the brain related to worry and anxiety, which are the Amygdala, Hippocampus and Prefrontal Cortex; in more child friendly terms we refer to these as the Meerkat (Amygdala), the Elephant (Hippocampus) and the Owl (Prefrontal Cortex).



The Meerkat (Amygdala)

The Amygdala is primarily responsible for processing emotions. It is one of the first parts of the brain to develop while in utero, and is especially important to the responding of threats and processing of fear. When responding to threats it provides our fight, flight and freeze responses. Meerkats are associated with being tense and always on the lookout, which is why the Amygdala is referred to as the Meerkat.

Unfortunately, our Meerkat can sometimes set off false alarms and trigger problematic reactive behaviours. Additionally, if our Meerkat is constantly active, it will drain us of our energy, stop us from learning effectively and prevent us from making sensible decisions.

The Meerkat (Amygdala) is thought to be activated more readily in children and young people who have had an anxious start in life, or have had a multitude of difficult experiences.

The Elephant (Hippocampus)

The Hippocampus works alongside the Amygdala in creating and recalling emotional memories; for example, how things, people and experiences make, or have made, us feel. There is a saying that 'Elephants never forget' and this is why we refer to the Hippocampus as the Elephant part of the brain.

It has a special relationship with the Meerkat, reminding it of emotional memories; these can be good memories but also memories associated with danger stress and anxiety.

The Owl (Prefrontal Cortex)

The Prefrontal Cortex is connected with logic and reasoning, as well as our language and social skills. It is referred to as the Owl part of the brain because an Owl is associated with being wise and calm. The Owl regulates us to use reason and logic to make decisions and problem solve; and helps us to balance our thoughts with our emotions. However, the Prefrontal Cortex often does not finish developing in men until their early 30's and women until their late 20's. This is why children and young people can find it hard to use this part of their brain when they are feeling anxious or under stress.

These different animals, or parts of the brain, will be in charge at different times. For example, if a child is having a 'meltdown' in class their Meerkat is likely in control. The Meerkat will be on high alert with the Elephant perhaps reminding them of last time this happened. The child at this point will be struggling to use the Owl part of the brain.

The child will respond most to the tone of your voice and physical reassurance, versus the words you may say, until their Meerkat feels safe. That is why reflection with the child is best completed after an event when the owl is back in charge.

For more information or resources please go to bwc.nhs.uk/youve-been-missed

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