Bringing Up Great Kids
Parenting Adolescents

Chapter 1 Handouts

Australian Childhood Foundation

www.bringingupgreatkids.org

Handout

Left and Right Brain

Handout

My Children

If you had three wishes for your adolescent 10 years from now, what would they be?

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Handout

Stop...Pause...Play

When we can relate to our adolescent with mindful awareness we activate a part of the brain (the medial pre-frontal cortex) which allows our defensive systems to switch off, putting us in a more relaxed state and allowing us to think and act more rationally and to step outside our own experience so that we can **BE MORE PRESENT TO OUR ADOLESCENTS' NEEDS.**

This is an exercise that we will practice every week or use any time you need to take time out to calm down before you respond to whatever is going on.

Stop

- Stop what you are doing.
- Make sure your feet are placed firmly on the ground.

Pause

- Focus on your breath.
- Breathe in slowly, right down into your belly, then exhale completely.
- Take 5 more slow breaths, being aware of each breath in and each breath out.
- Smile and enjoy standing like this for a moment. Feel your body relax.
- Reflect. Ask yourself "What do I need?" and "What does my adolescent need?"

Play

Respond to your adolescent with new understanding.

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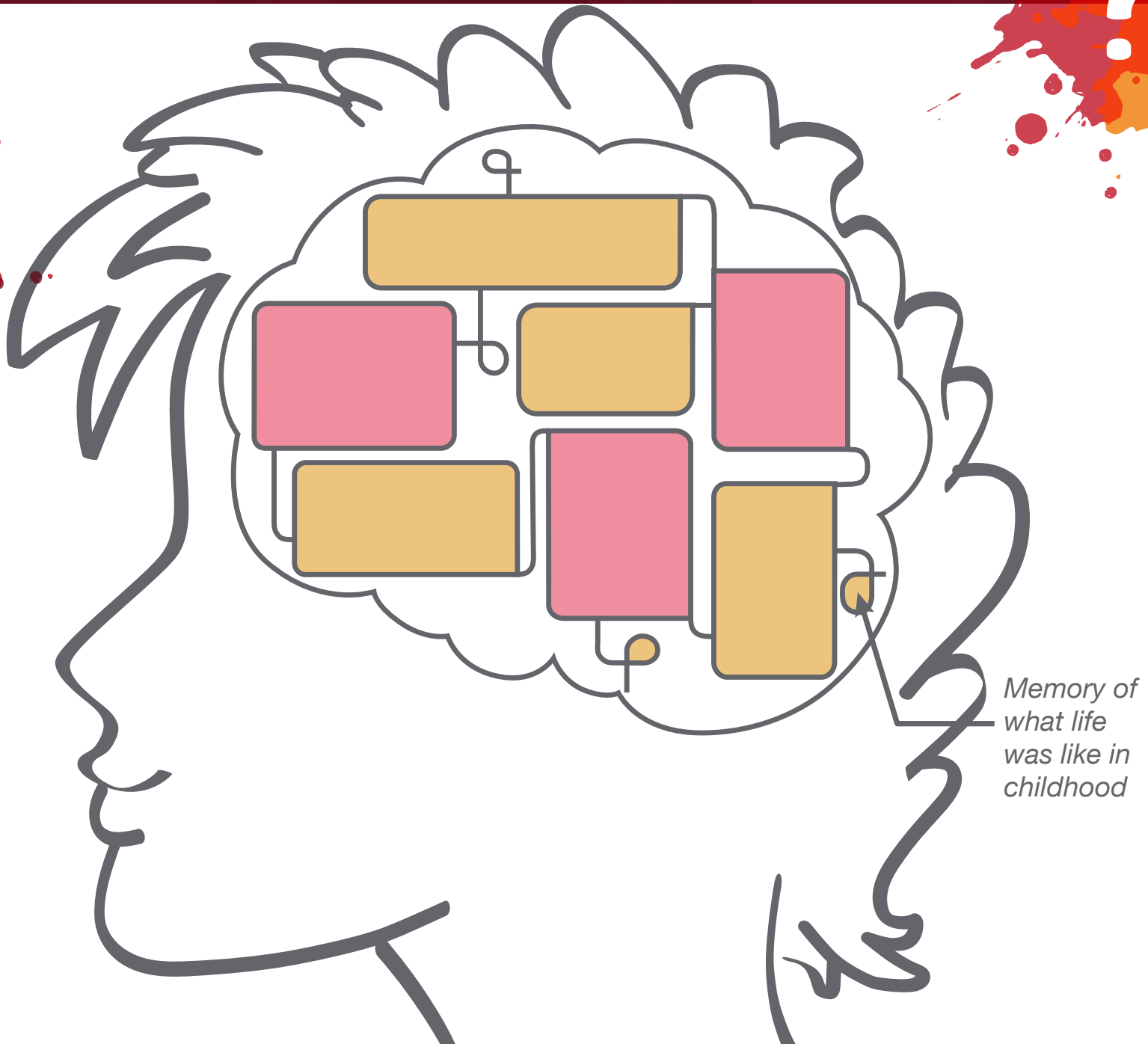
Handout

The Adolescent Brain

Anatomy of an Adolescent's brain



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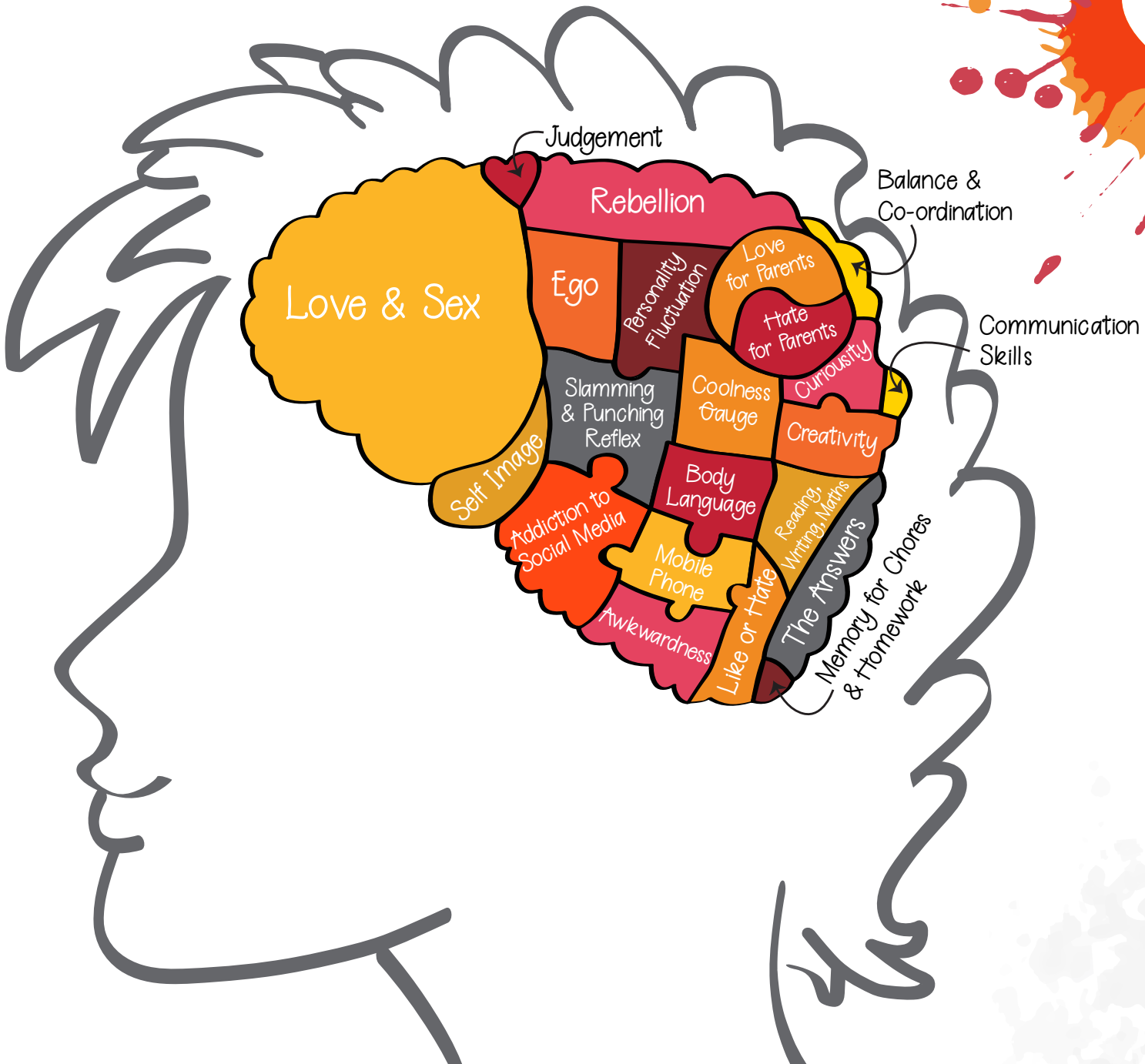
The Adolescent Brain



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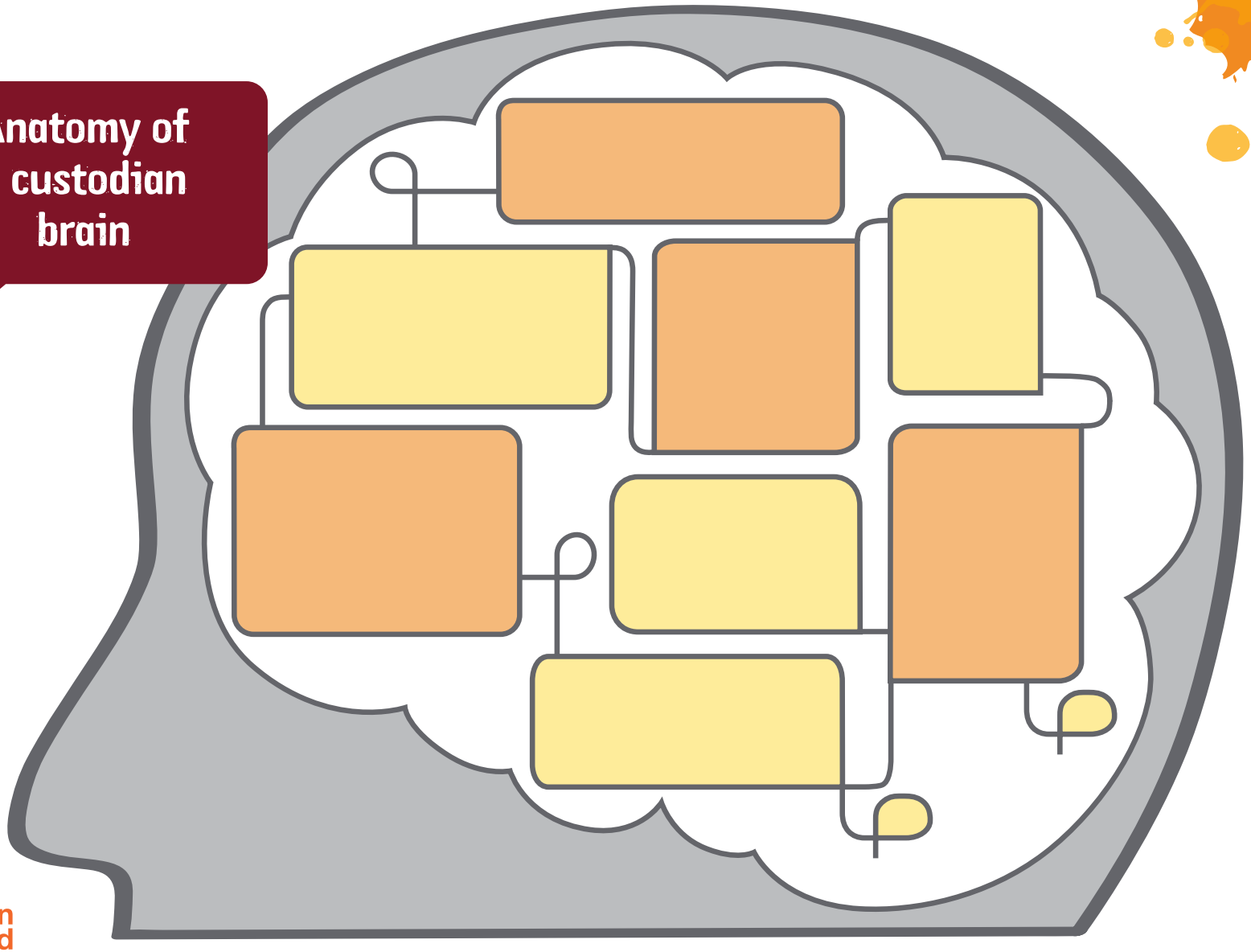
The Parent Brain

Anatomy of a custodian brain



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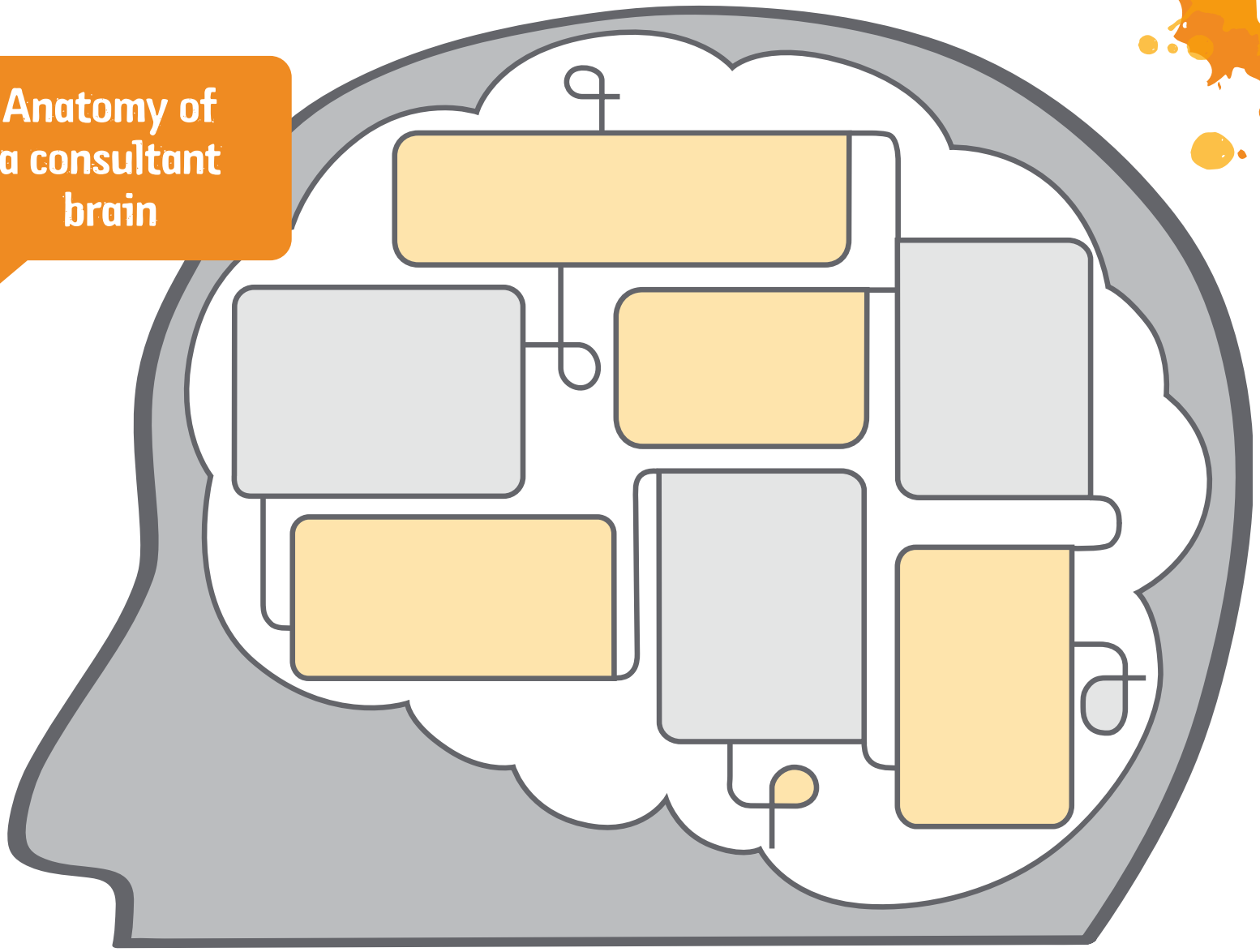
Handout

The Parent Brain

Anatomy of a consultant brain



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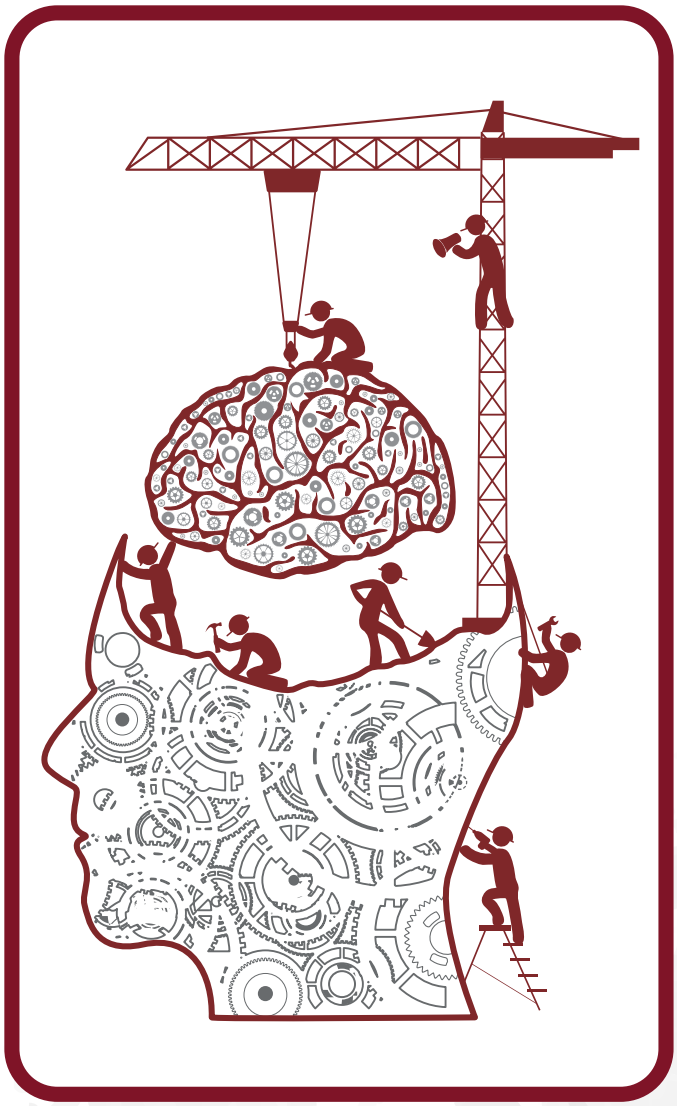
The Pruning Brain

Daniel Siegel (in Brain Based Parenting) notes, that adolescence does not necessarily begin or end with puberty. Rather, Siegel describes it as a particular phase of brain development, which he describes as the “period of adaption.” He carefully separates “adaption” from” immaturity,” the more traditional understanding of the adolescent brain. During adolescence, the brain is actively engaged in extensive and rapid pruning, remodeling, and integration, a process that hardly makes sense to describe as immature.

When we think of adolescence as a period of time characterised by immaturity, impulsivity, a lack of information, and the need to be separate from adults, we continue with beliefs about the adolescent brain that are unlikely to be useful for anyone especially parents and adolescents themselves.

So what is going on in the adolescent brain?

Siegel describes adolescence as a period of “hyper-rational thinking,” in which the part of the brain that weighs and evaluates pros and cons is tilted toward the positive buzz of the “pro.” As a result, they overestimate the positive consequences of the “pro,” while not necessarily underestimating the negative consequences of the “con.”



What’s going on when an area of the brain becomes a ‘construction zone’?

Growth

At around the end of childhood there is a rapid growth spurt of brain connections.

A massive growth spurt occurs, where millions of new connections grow between neurons. The brain develops within a ‘use it or lose it’ system. Those connections which are used most, will strengthen and survive, while those which are not used will be ‘pruned’ away.

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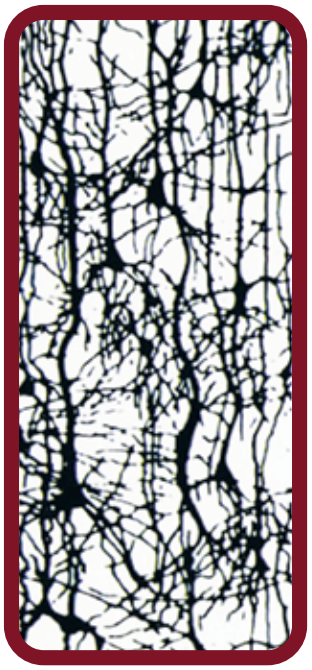
The Pruning Brain

Pruning

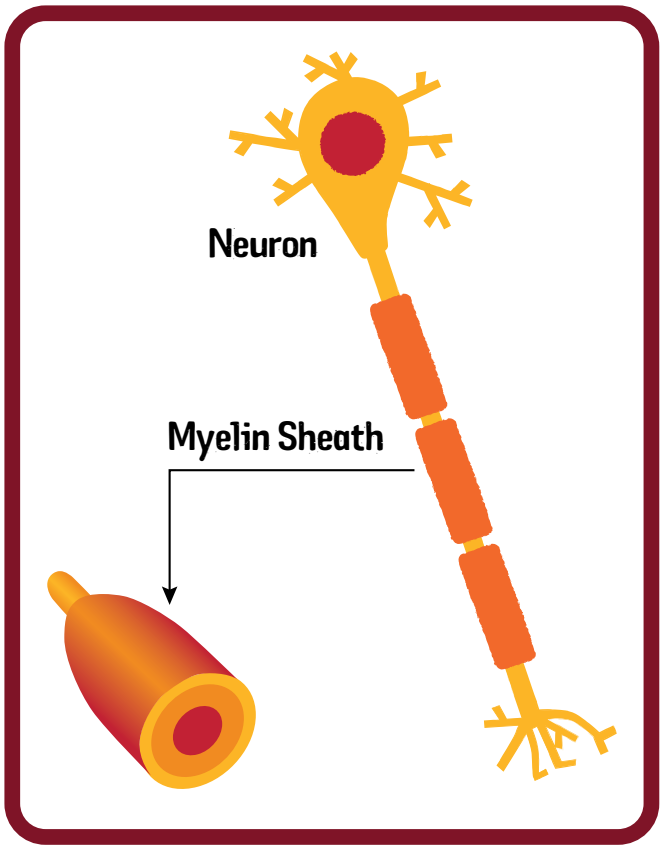
While transitioning into adolescents, and then into early adulthood, there is a massive 'pruning' of those connections which are not used. Pruning away of those connections which are not used, enables the brain to work more efficiently.

Newborn



3 Years

14 Years



Myelination

While the process of growth and pruning is occurring during the adolescent years, those connections which remain, are gradually coated with a fatty sheath of protective material which helps transmission of messages to become more efficient. This process is called Myelination. The coating acts a bit like the insulation around electric wiring.

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Handout

Bottom-Up Brain Development

Cortex
Reasoning and Judging Centre

Limbic System
Emotional Centre

Cerebellum
Motor Centre

Brain Stem
Basic Survival Functions

The **brain stem** area develops first and is responsible for basic functions that **keep us alive** such as heart rate, breathing and regulating our body temperature. The brain stem is fully developed by birth. It is the part of the brain that is 'hard wired' and least susceptible to change.

Connected to the brain stem is the **motor centre** of the brain. This area is responsible for **movement** and develops over the first few years of life.

The **limbic system** is the **emotional centre** of the brain and rules the lives of young children up to around four years. During the toddler years, the limbic system goes through a period of rapid development. This helps explain their bursts of irrational behaviour and tantrums. Toddlers feel then act, they don't think then act.

(At this point, parents of adolescents might comment that it is not only toddlers who act without thinking! Ask them to hold that thought as we explore what's going on in the adolescent brain, as there are some interesting comparisons to be made.)

The **cortex**, or the thinking part of the brain, is the last part to develop. This is the part of the brain responsible for reasoning, planning and judging. The cortex enables humans to **think** before they act. As children grow and develop, the cortex is gradually able to help us to pause when we are flooded by strong emotions, thus allowing us to feel, think and reflect, then act.

Handout

The Adolescent's Pre-Frontal Cortex

Pre-Frontal Cortex
Higher Functioning Centre

Cortex
Reasoning and Judging Centre

Limbic System
Emotional Centre

Cerebellum
Motor Centre

Brain Stem
Basic Survival Functions

The adolescent brain is different from the brain of a younger child, and different from an adult brain.

95% of the structure of the brain has been formed by the time children are 6 years old, but huge changes occur during the adolescent years.

The last area of the brain to develop fully, is the front section of the cortex- the **Pre-Frontal Cortex**, situated just behind the forehead.

The pre-frontal cortex is the most 'grown up' area of the brain. It has been called 'the CEO of the brain' and 'the area of sober second thought'.

When fully developed, the Pre-Frontal Cortex allows us to:

- **Make sound judgements**
- **Set goals and priorities**
- **Plan**
- **Multi-task**
- **Control our impulses and emotions**

During the adolescent years, the pre-frontal cortex is a 'construction zone', a 'work in progress'. During this time of massive change, the brain doesn't grow much more, but it undergoes a massive remodelling- a bit like having a total network and wiring upgrade.

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