Adoption: Living Life to the Full

9/11/16

PAC-UK THE AGENCY FOR ADOPTION & PERMANENCY SUPPORT

The Tavistock and Portman NHS NHS Foundation Trust

Seizing hope from the jaws of despair: Lessons from neurobiology and child developmental science'

Dr. Graham Music

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Typical issues with LAC

- Emotional regulation (behavioural problems)
- Poor empathy, understanding of emotions (mentalization)
- Controlling and rigid, yet chaotic
- Peer relations problematic
- Poor executive functioning
- Cannot manage change
- Cannot understand or adhere to expectations (social/moral/group)
- Hypervigilant or cut-off/dissociated
- Little hope life can feel safe, rewarding or enjoyable

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amazing interpersonal potential

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The brain: a future predicting machine

- We learn fast .. We all need to know what happens next
- If something happens once babies expect it the next time
- Monitor external environment and internal
- Non-conscious early memories become deeply engrained patterns

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Procedural non-conscious learning

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Memories

- Declarative memories (explicit memories) of facts, such as dates .
- Procedural memories (implicit memories) of "how to do things", such as tying a shoelace or riding a bike.
- Different procedural expectations of relationships
- Literally experience a different world
- Eg those who are secure, or hyperalert to potential danger or extremely 'deactivated' or dissociated
- Different hormones and brain pathways

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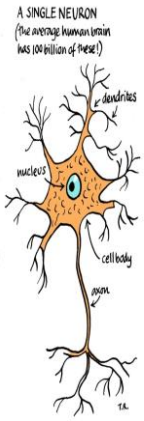
Use it or lose it!

- Born with too many brain cells, and few connections between them
- 100 billion neurons, 100 trillion synapses
- Cells that are not used simply die off,
- 20 billion synapses pruned every day between childhood and early adolescence; Schwartz (2002) says 'like bus routes with no customers, they go out of business'.
- Once a connection formed it remains, wired ..but new pathways and wiring can form later.



Developing Brain

At birth, most brain cells are present. After birth, the neural networks multiply resulting in increased physical and mental abilities.

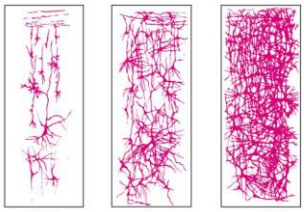


Figure 5.5 Drawings of human cerebral cortex sections
Myers: Psychology, Ninth Edition Copyright © 2010 by Worth Publishers

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startle

Adaptive brains

- FMRI babies 6 to 12 months
- Found out in which homes there was more conflict between the couple
- Brought into lab at bedtime
- Adult males spoke nonsense words
- In their *sleep* infants from high conflict homes had stronger reactivity to the very angry tone of voice in brain areas associated with stress and emotional regulation

Graham, A. M. et al. (2013) What Sleeping Babies Hear: A Functional MRI Study of Interparental Conflict and Infants' Emotion Processing. *Psychological Science*.

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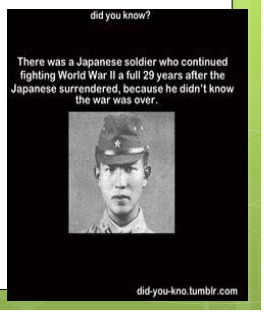
Adaptive attachment

- attachment styles are testament to a child's ability to understand how adults tick, to detect patterns and to learn to adapt to their environment
- best chance of survival comes from working out what is required to retain the favour of our attachment figures

Eg

- avoidant child learns to limit its emotional expressiveness
- the ambivalently attached child learns to watch its more unpredicatble parent very closely
- the secure child knows that it can explore in the safe knowledge that it can rely on its attachment figure when needed



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Attachment styles

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Insecure eg disorganised attachment

- Children subjected to unpredictable and traumatizing parenting, and had failed to develop a coherent, consistent strategy to deal with these frightening experiences
- Sometimes hypervigilant and organised
- the person who should provide comfort, is often the person who is giving rise to the distress
- no way of getting their attachment needs met
- Use both activating and deactivating strategies

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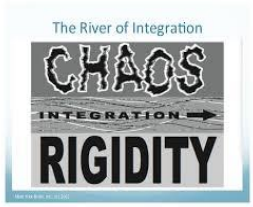
Disorganised attachment

- predicts controlling as well as chaotic behaviour
- The world feels unsafe, no-one to mutually regulate with or enjoy
- the brain organisation of traumatised children often being characterised by both chaos and rigidity,
- less complex connections and communication between the different parts of the brain.
- Wariness, fear and danger ..
- Dislike of the unpredictable, of change



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Still-face

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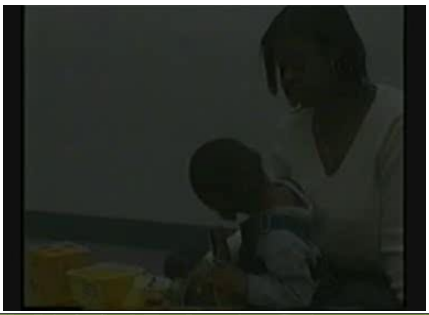
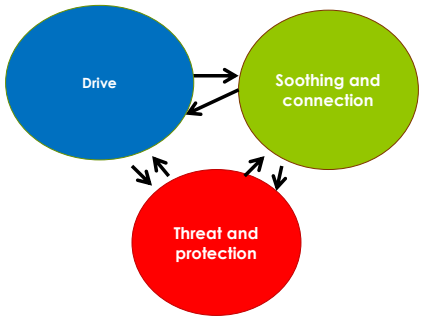
Lack of reciprocity: Older still-face





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Mismatch and repair: Tronick Beebe

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Epistemic trust

- The theory of natural pedagogy suggests that that there is a human specific, cue-driven form of social cognition evolved to enable the transmission of cultural knowledge (Csibra & Gergely, 2006, 2009, 2011).
- Secure relationships stimulate epistemic trust, and we see more open and receptive communication channel
- Assume the information is reliable and benignly motivated.
- Such individuals are regarded with **epistemic deference**, and the recipient of knowledge adopts a pedagogic stance in relation to them.
- This is stimulated by ostensive cues e.g. eye contact, turn-taking contingent responses and the use of a special tone of voice.
- Specifically, epistemic trust encourages the recipient of the new information to relax **epistemic vigilance.**

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What effect does this have?

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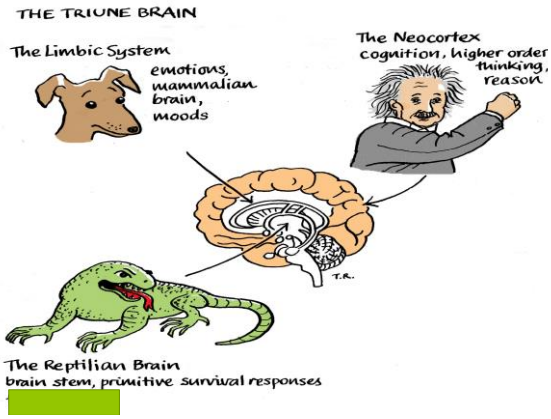
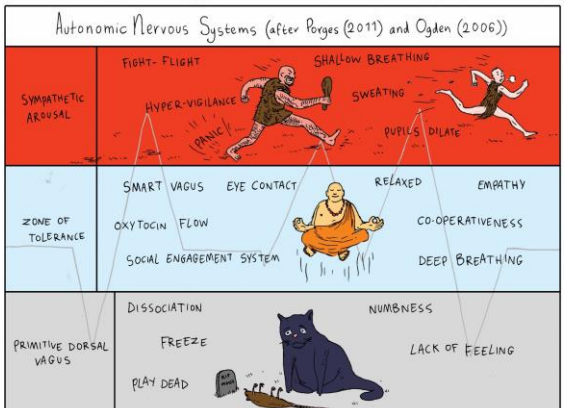
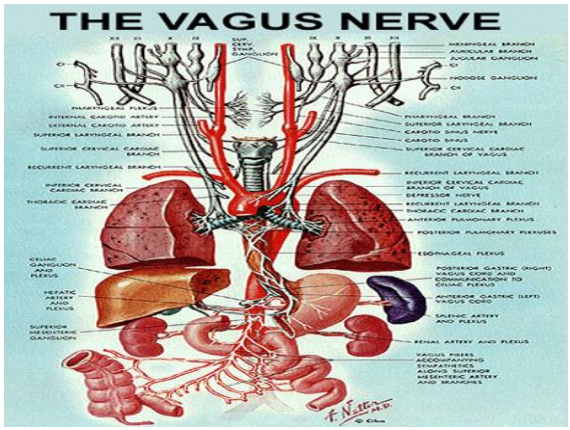
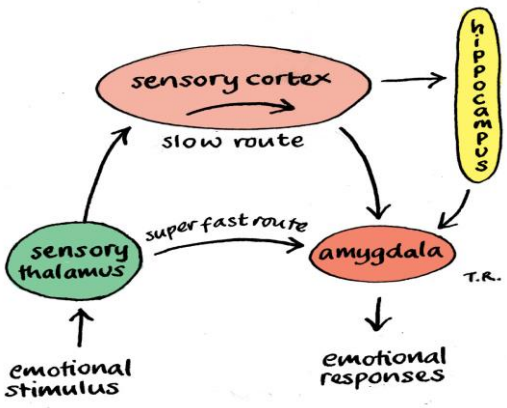
How maltreatment gets under the skin

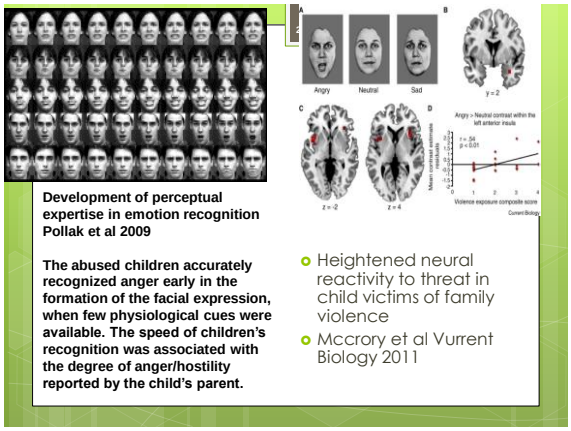
- Children and adults exposed to maltreatment showed smaller volume of the prefrontal cortex
- Smaller hippocampus (as they grow up)
- smaller corpus callosum
- greater activation of the HPA axis
- Higher elevation in inflammation levels compared to non-maltreated individuals











Development of perceptual expertise in emotion recognition Pollak et al 2009

The abused children accurately recognized anger early in the formation of the facial expression, when few physiological cues were available. The speed of children's recognition was associated with the degree of anger/hostility reported by the child's parent.

- Heightened neural reactivity to threat in child victims of family violence
- Mccrory et al Vurrent Biology 2011

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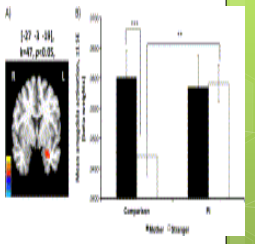
- Early neglect link with changes in the hippocampus and also reduced volume ofprefrontal cortex: Frodl et al 2010
- Childhood neglect linked with smaller corpus callosum (Teicher et al 2004)
- Deprived care predict low growth, which in turn predicts higher cortisol levels (Kertes et al 2008)
- Dozier et al . Interventions lower baseline cortisol levels ie affect HPA axis

Neglect: it's different

- lewss amygdala activation when adoptive kids interact with either mothers or strangers (in controls higher amygdala activation with strangers). Linked with more indiscriminate friendliness. Moreover, these effects increased with age-at-adoption



- Olsavsky, A.K. et al., 2013. Indiscriminate amygdala response to mothers and strangers after early maternal deprivation. *Biological psychiatry*, 74(11), pp.853–860.

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Disorganised attachment

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- The world feels unsafe, no-one to mutually regulate with or enjoy
- the brain organisation of traumatised children often being characterised by both chaos and rigidity, but with less complex connections and communication between the different parts of the brain.
- Wariness, fear and danger .. Take charge
- Mary Main : these children show this controlling side in 2 main ways; some children might try to humiliate the parent, maybe by ordering them around, whilst others might be extremely solicitous and protective, but still be in charge of interactions, and often taking on a parental role. [1]

[1] Main, M., & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. Developmental Psychology, 24, 415-426.

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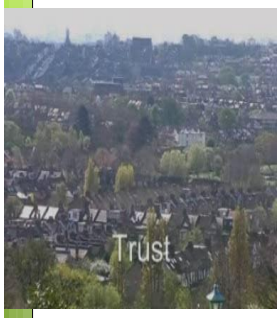
Terrible lack of trust



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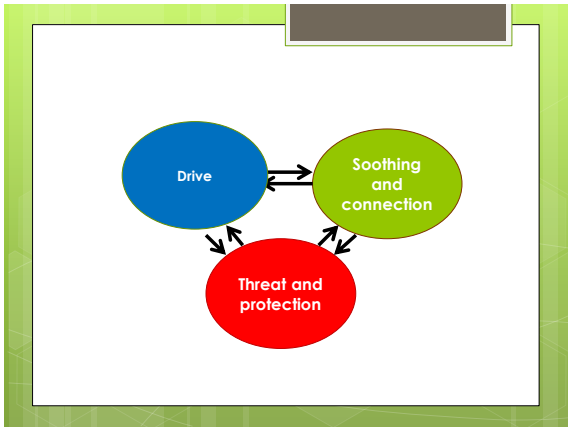
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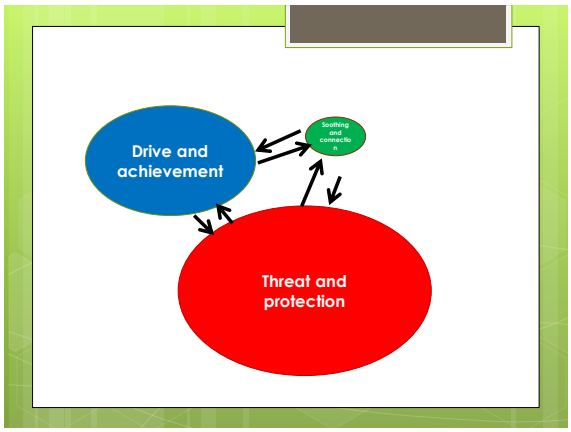
Soothing and connection
Threat and protection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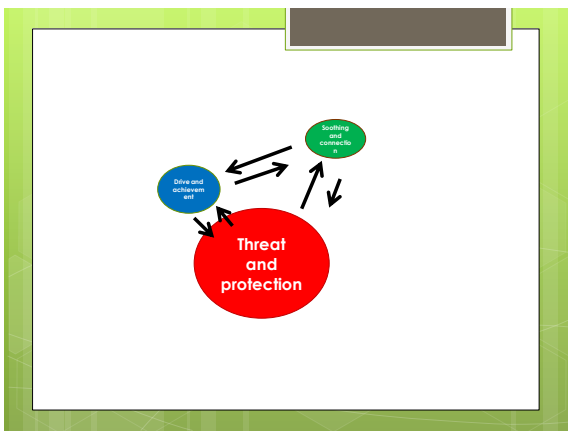
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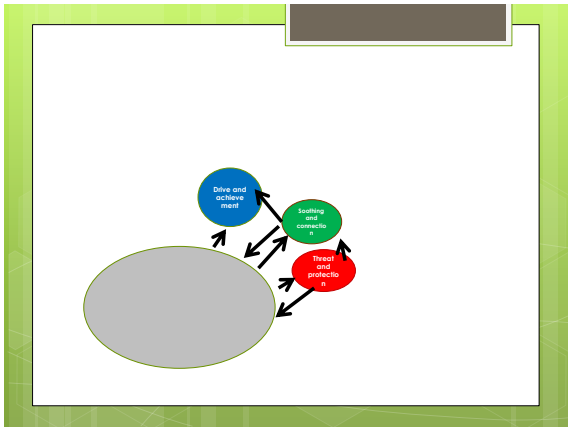
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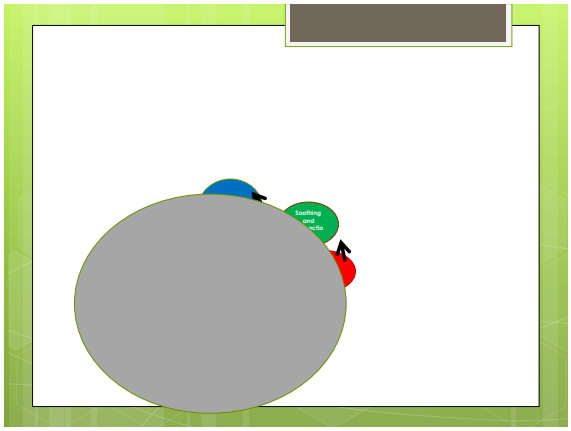

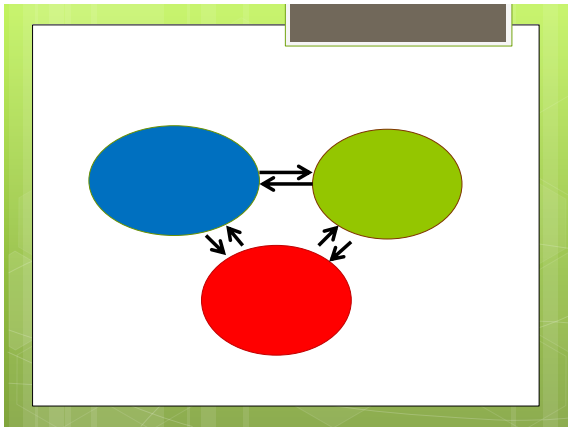

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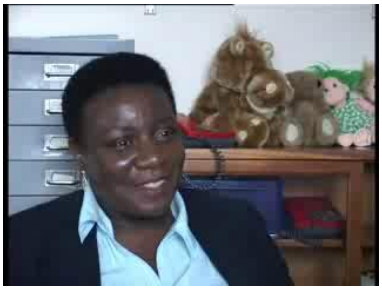

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Contact details

gmusic@nurturingminds.co.uk

www.nurturingminds.co.uk (Includes occasional research/child development blog)

Twitter: grahammusic1