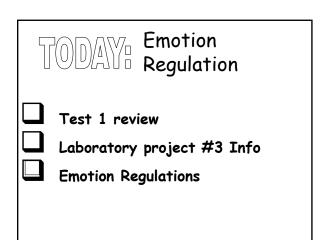


## **Applied Cognition & Neuroscience**

Mātai hinengaro whaipainga

Lecture notes: Emotion Regulation, 6 May 2008 Dr Robert Isler

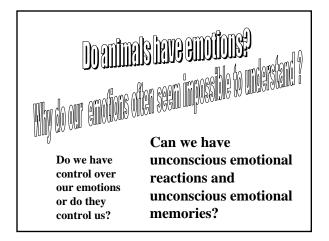


"The Psychology of Emotions is not a very crowded area of research!!"

LeDoux, 1996

Most of the mental disorders are emotional disorders!

Emotions can influence every aspect of our mental life shaping our perceptions, memories, thoughts, and dreams.



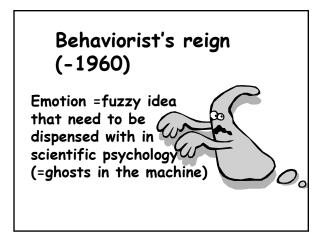
Are emotions cast in neural stone by our genes or taught to the brain by the environment?

Are emotional memories permanent? Scientists have had lots to say about what emotions are:

- Emotions are bodily responses that evolved as part of the struggle to survive
- Emotions are mental states that result when bodily responses are sensed by the brain
- Emotions have also been viewed as ways of acting or ways of talking

Scientists have had lots to say about what emotions are:

- Unconscious impulses are at the core of an emotion
- Emotions are thoughts about situations in which people find themselves
- Emotions are social constructions, things that happen between rather than within individuals



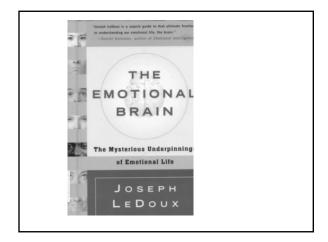
Cognitive Science: New Science of the Mind, Thinking, Reasoning, Intellect..It leaves emotions out!

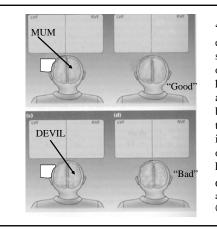
But many perceptions trigger an automatic emotional response...that you don't want to miss...!

See Capgras delusion

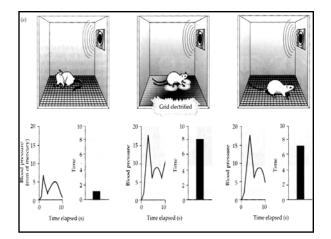
Since the time of the ancient Greeks, humans have found it compelling to separate reason from passion, thinking from feeling, cognition from emotion.

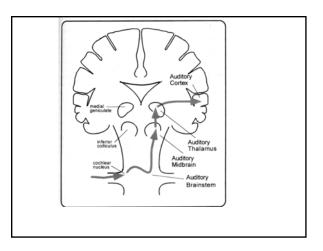
Le Doux, 1996

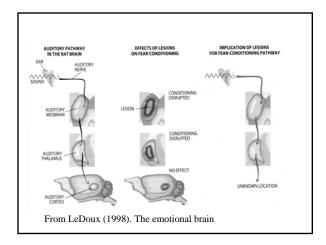


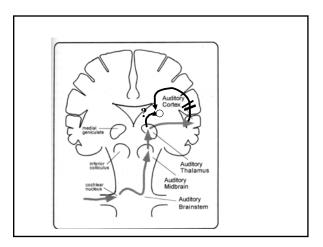


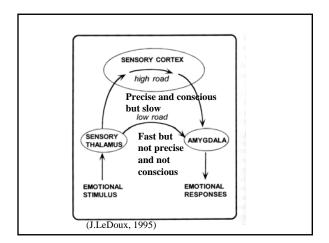
"Somehow the emotional significance of the stimulus had leaked across the brain, even though the identity of the stimulus had not" Gazzaniga, M.S., and LeDoux, J.E. (1978)

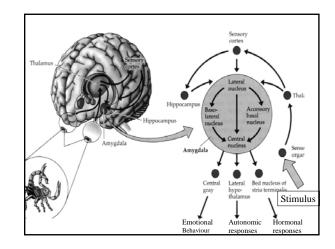




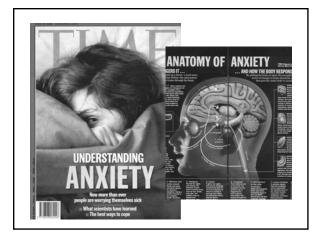






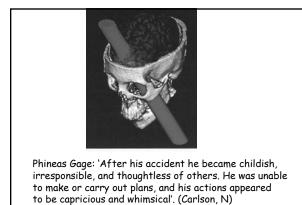




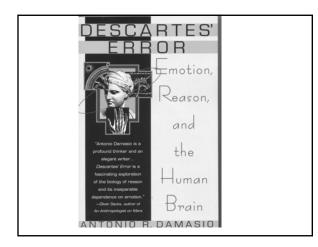


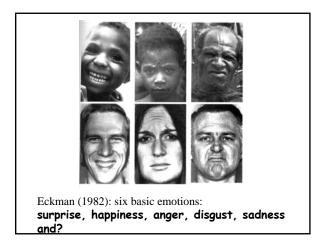
## Emotion Responses have three different components:

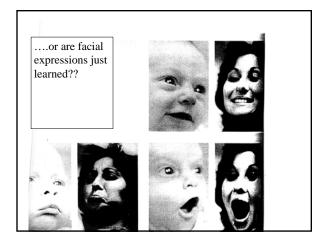
- Feeling (Experiential)
  Emotion is a feeling that is private and subjectivemay not have overt indicators
- Physiological arousal (Autonomic and hormonal responses)
  Emotion is a state of physiological arousal
- Actions (Behavioral) such as defending or attacking in response to a threat



=> similar to the behaviour of a drunk?

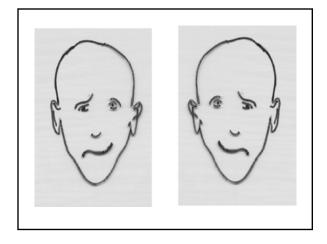


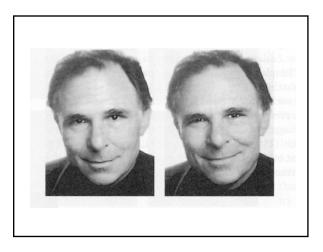


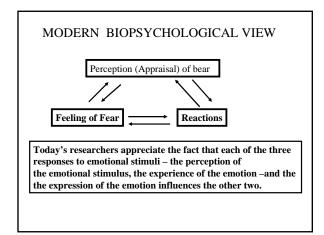


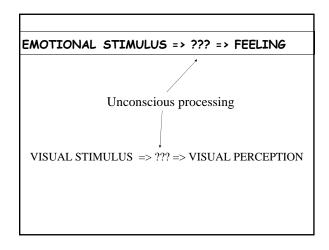
Creative Mind Conscious 5% 40 Bit Processor

Experiental Mind Subconscious Habitual ("Tape") 95% 40 Million Bit Processor









Karl Lashley: conscious content comes from processing, and we are never consciously aware of the processing itself but only of the outcome.

Just as we can study how the brain processes information unconsciously in perceiving visual stimuli and using visual information to guide behaviour we can study how the brain processes the emotional significance of stimuli unconsciously and uses this information to control behaviour appropriate to the emotional meaning of the stimuli. (Le Doux, 1996)

## Emotion Regulation:

Emotion regulation refers to the processes by which we influence which emotions we have, when we have them and how we experience and express them. (Gross, 1998).

Prychophysiology: 39 (2002), 281-291. Cambridge University Press. Printed in the USA Copyright © 2002 Society for Psychophysiological Research 201: 10.1017.50048577201393198

EARLY CAREER AWARD

Emotion regulation: Affective, cognitive, and social consequences

JAMES J. GROSS Department of Psychology, Stanford University, Stanford, California, USA

One of life's great challenges is successfully regulating emotions. Do some emotion regulation strategies have more to accommand them than others? According to Gross's (1998: Review of General Psychology, 2, 271-299) process model

