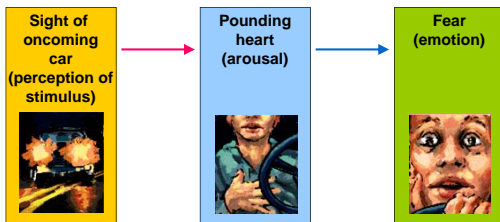


James-Lange Theory of Emotion

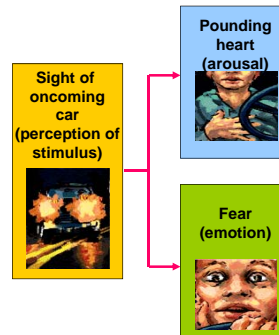
⌘ Experience of emotion is awareness of physiological responses to emotion-arousing stimuli



Cannon-Bard Theory of Emotion

⌘ Emotion-arousing stimuli simultaneously trigger:

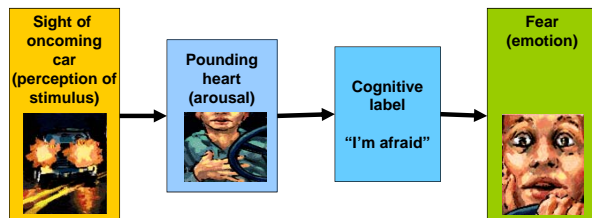
- ☒ physiological responses
- ☒ subjective experience of emotion



Schachter's Two Factor Theory of Emotion

⌘ To experience emotion one must:

- ☒ be physically aroused
- ☒ cognitively label the arousal



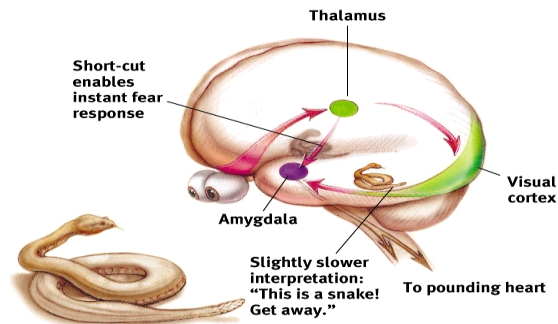
Cognition and Emotion

⌘ Zajonc: Do we need to label our arousal to experience emotion?

- ☒ Sometimes yes, sometimes no.
- ⌘ Simple emotions (e.g., fear) do not require cognitive processing.
- ⌘ Complex emotions (e.g., love) do.

Cognition and Emotion

⌘ The brain's shortcut for emotions



Circumplex model of emotion (Russell, 1980)

All emotions can be described with just two dimensions:

Valence (horizontal): Is the emotion positive or negative?

Arousal (vertical): Is the emotion arousing or calming?



Arousal and Performance



Some activities are better performed under different arousal levels.

Arousal and Performance

EASY TASK = RUNNING



Low arousal



High arousal

Arousal and Performance

DIFFICULT TASK = FREE THROWS

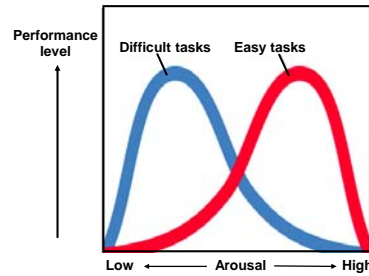


Low arousal



High arousal

Arousal and Performance



⌘ Performance peaks at lower levels of arousal for difficult tasks, and at higher levels for easy or well-learned tasks

Emotion-Lie Detectors

⌘ Polygraph

- ⊠ machine commonly used in attempts to detect lies
- ⊠ measures several of the physiological responses accompanying emotion
 - ⊠ perspiration
 - ⊠ heart rate
 - ⊠ blood pressure
 - ⊠ breathing changes



Control Question Test Method

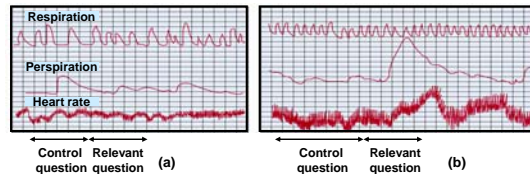
⌘ Control Question

- ⊠ Up to age 18, did you ever physically harm anyone?

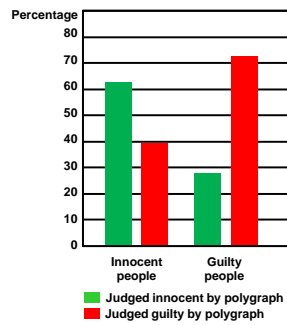
⌘ Relevant Question

- ⊠ Did the deceased threaten to harm you in any way?

⌘ Relevant > Control --> Lie



Emotion-Lie Detectors



- ⌘ 50 Innocents
- ⌘ 50 Thieves
- ☒ 1/3 of innocent declared guilty
- ☒ 1/4 of guilty declared innocent (from Kleinmuntz & Szucko, 1984)
- ☒ Polygraphs work...they just don't work well enough.

Emotion-Lie Detectors

- ⌘ Liars can beat polygraphs
- ☒ Lower arousal response (or signs of arousal) to relevant question...
 - ☒ Sedatives, antiperspirant on fingertips
- ☒ Increase arousal to control question.
 - ☒ Tacks in shoe, bite cheek, bad thoughts...



Emotion-Lie Detectors

- ⌘ Truthful people can fail lie detectors

•Relevant question is often much more emotionally arousing than control question.

Control Question:

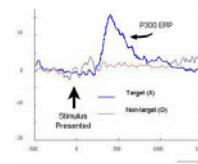
Have you ever been accused of lying to the police?

Relevant question:

Have you ever had sexual intercourse with your son?

WHICH QUESTION WOULD MAKE YOU MORE EMOTIONALLY AROUSED??? WOULD YOU APPEAR TO BE LYING IN THIS INSTANCE?

Better way to detect lies?

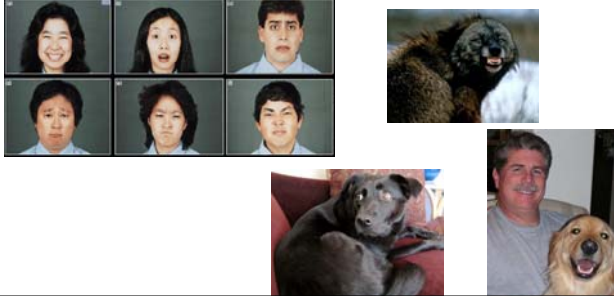


Parietal Lobe



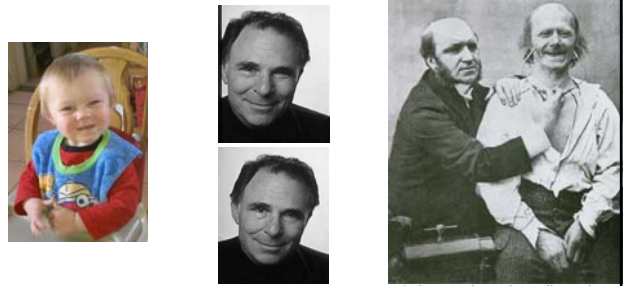
Expressing Emotion

- ⌘ Many different species of mammals express emotion the same way.



Expressing Emotion

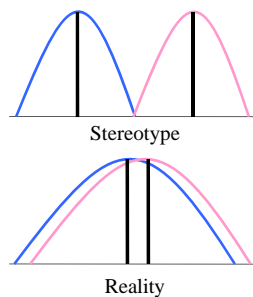
- ⌘ Duchenne Versus Fake Smiles



Guillaume Duchenne electrically stimulating involuntary muscles involved in smiling and laughter.

Expressing & Detecting Emotion (gender differences)

- ⌘ Women are somewhat better than men at detecting non-verbal displays of emotion.
- ⌘ Men tend to describe emotional reactions in simpler terms.
- ⌘ Women are somewhat more likely to respond emotionally to someone else's non-verbal emotional display.



Expressing Emotion

- ⌘ Not only do our facial expressions of emotions help to communicate how we feel, they also influence how we feel when we make them.
- ⌘ Similar to James-Lang theory that our behaviors or responses lead to emotional experiences.

Happiness

⌘ Subjective Well-Being

- ☒ self-perceived happiness or satisfaction with life
- ☒ used along with measures of objective well-being
 - ☒ physical and economic indicators to evaluate people's quality of life

Correlates of Happiness

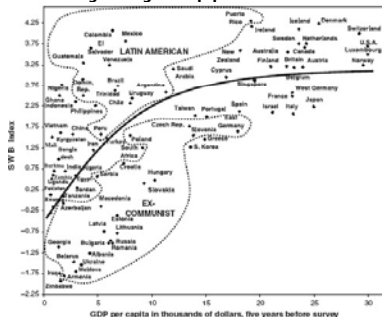
⌘ What makes us happy?

- ☒ Feelings of autonomy (control over one's life)
- ☒ Feelings of competence (your good at what you do)
- ☒ Feelings of relatedness (you're included in activities, etc. of your social group)

⌘ Does money make us happy?

Money and Happiness

⌘ Does money buy happiness?



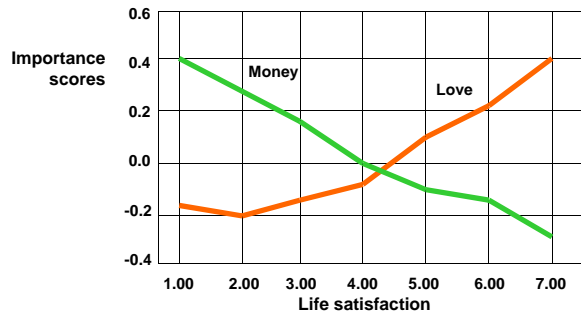
Money and Happiness

⌘ Does money buy happiness?

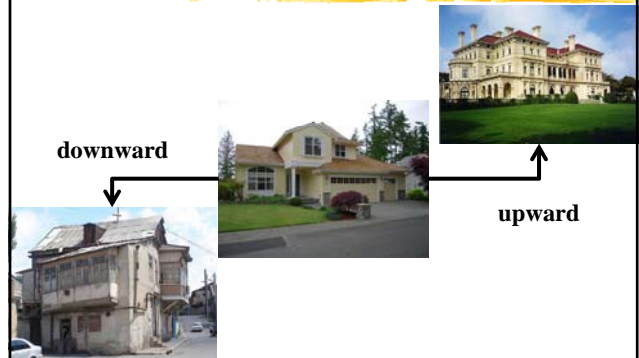


Money and Happiness

⌘ Values and life satisfaction



Social Comparison



Counterfactual Thinking

What might have been...



Counterfactual Thinking

Which grade would you be happier with?

80% B or 89% B

What might have been?