# Nature of emotion Dr James Neill Centre for Applied Psychology University of Canberra 2011

**Upcoming lectures** 

A

- **■** Emotion
- ■Nature of emotion (Ch 11)
- ■Aspects of emotion (Ch 12)
- Individual differences
- ■Personality (Ch13)
- ■Unconscious motivation (Ch 14)
- ■Growth psychology (Ch 15)
- Summary & conclusion (Ch 16)

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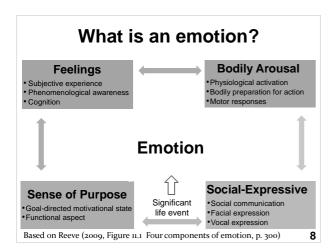
## Nature of emotion: Five perennial questions

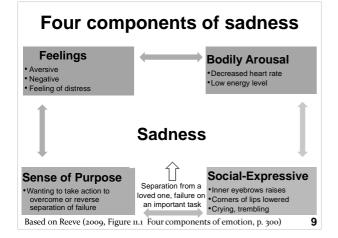
Reading: Reeve (2009) Ch 11

(pp. 297-328)

| Five questions   |  |
|--|--|
| 1. What is an emotion?   |  |
| 2. What causes an emotion?   |  |
| 3. How many emotions are there?  |  |
| 4. What good are the emotions?   |  |
| 5. What is the diff. between emotion & mood?   |  |
| Based on Reeve (2009, p. 299) <b>4</b>   |  |
| Outline – Nature of emotion  What Is an emotion? Definition Relationship between emotion & motivation What causes an emotion? Biology vs. cognition Two-systems view Chicken-&-egg problem Comprehensive biology-cognition model  Based on Reeve (2009, pp. 297-298)  How many emotions? Cognitive perspective Reconciliation of #s issue Basic emotions Coping functions Social functions Why we have emotions Difference between emotion & mood? Everyday mood Positive affect |  |
| Five more questions?   |  |
| 1. How can emotion be measured?  |  |
| 2. What are the consequences of emotions?  |  |
| 3. How can emotion be changed?   |  |
| 4. How and why did emotions evolve?  |  |
| 5. How do emotions of animals & humans vary?   |  |
| 6  |  |

# Five more questions? 1. ? 2. ? 3. ? 4. ? 5. ?





### Relationship between motivation & emotion

#### **Emotion as motivation**

Emotions are one type of motive which energises and directs behaviour.

#### **Emotion as readout**

Emotions serve as an ongoing "readout" to indicate how well or how poorly personal adaptation is going.

Based on Reeve (2009, pp. 301-303)

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#### **Definition of emotion**

"Emotions are ... short-lived, feeling-arousal-purposive-expressive phenomena that helps us adapt to the opportunities and challenges we face during important life events."

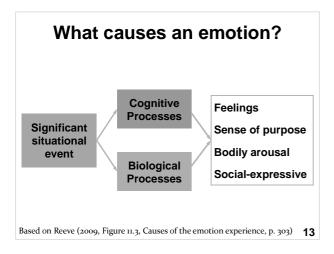
Based on Reeve (2009, pp. 301)

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#### **Definition of emotion**

"Emotions are ... the synchronised systems that coordinate feeling, arousal, purpose, and expression so as to ready the individual to adapt successfully to life circumstances."

Based on Reeve (2009, pp. 301)



#### **Biology and cognition Biology perspective** Cognitive perspective Cognitive activity is a Biology lies at the necessary causal core of emotion. prerequisite to (e.g. neurotransmitters) emotion. Lazarus (1984, 1991a, 1991b) – appraisal • Izard (1989) - infants • Ekman (1992) - emotions needed happen to us • Panksepp (1982, 1994) -• Scherer (1994a, 1994b, 1997) - specific genetically-endowed appraisals (good/bad, neural circuits cope, morality)

Based on Reeve (2009, pp. 303-305)

• Weiner (1986) - attribution

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Two-systems view (Buck, 1984)

Social, cultural learning history of the individual

Significant Stimulus Event

Subcortical structures and pathways

Evolutionary, phylogenetic history of the species

Subcortical structures and pathways

Subcortical structures and pathways

Parallel, Interactive, & Coordinated Output to Activate and Regulate Emotion

Parallel, Interactive, & Coordinated Output to Activate and Regulate Emotion

Based on Reeve (2009, Figure 11.4, Two systems view of emotion, p. 306)

#### Two-systems view

- Levenson (1994) the two systems influence one another
- Panksepp (1994) some emotions are primarily from the cognitive system (e.g., fear and anger), other emotions arise from experience, modeling and culture (e.g., gratitude and hope).

Based on Reeve (2009, p. 306)

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# Cognition vs. biology debate: A chicken-&-egg problem (Plutchik, 1985) Emotion is a chain of events that aggregate into a complex feedback system. Preparation for Action Significant Stimulus Event Significant Stimulus Event Preparation for Action Expressive Displays

#### How many emotions are there?

Based on Reeve (2009, Figure 11.5 Feedback loop in emotion, p. 307)

### Biological Perspective

- Emphasises primary emotions (e.g., anger, fear); downplays secondary or acquired emotions.
- See: Figure 11.6 8
   research traditions in the
   biological study of
   emotion
- Small #: 2 to 10 emotions
- Universal
- · Products of biol. & evol.

Based on Reeve (2009, pp. 308-312)

### Cognitive Perspective

- Acknowledges the importance of the primary emotions, but stresses the complex (secondary, acquired) emotions – thus there are many, varied emotions which arise in response to different meaning structures
- See: Figure 11.7 9 research traditions in the cognitive study of emotion

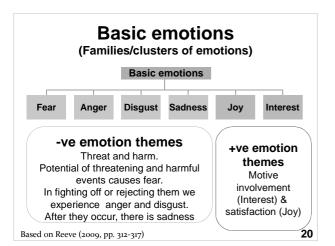
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#### **Basic emotions criteria**

- 1. Innate rather than acquired
- 2. Arises from the same circumstances for all people
- 3. Expressed uniquely & distinctively
- 4. Evokes a distinctive and highly predictable physiological response

Based on Reeve (2009, pp. 312-317)

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#### **Fear**

- 1. Caused by combination of:
  - **1. Situational threat** (esp. threat of psychological or physical harm)
  - 2. Perception that one can do little to cope i.e., **perceived vulnerability**
- Motivates defense (flight or stillness) warning signal
- 3. Trembling, perspiring, looking around, nervous tension
- Provides motivational support for learning new coping

Based on Reeve (2009, p. 313)

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| 1. Caused by: Anger  |      |
|--|------|
| (Perceived illegitimate) <b>restraint</b> or interferen in pursuit of one's goals, plans, or well-being b some outside force   |      |
| Betrayal of trust, rejection, unwanted criticism lack of consideration by others, cumulative annoyances  | m,   |
| Perception that one can do little to cope i.e.,     perceived vulnerability  |      |
| <ol> <li>High passion – energises, strengthens, fight/fligh<br/>increases sense of control. Can cause sig.<br/>damage, but assertive, non-violent expression<br/>usually pays off</li> </ol> | ght, |
| Based on Reeve (2009, pp. 313-314)   | 22   |
| Disgust  |      |
| _  |      |
| <ol> <li>Rejection (getting rid of or away from) of<br/>contaminated object (which depends on learning<br/>and culture) – infants only show disgust for bitter<br/>or sour taste</li> </ol>  |      |
| 2. Contamination sources   |      |
| 1. Bodily (e.g., poor hygiene, gore, death)  |      |
| <ol> <li>Interpersonal (e.g., physical contact with<br/>undesirable people)</li> <li>Moral (e.g., child abuse, incest, infidelity)</li> </ol>  |      |
| Motivates positive coping behaviours to prevent or avoid contamination sources   | t    |
| Based on Reeve (2009, pp. 314-315)   | 23   |
|  |      |
| Sadness  |      |
| Most negative emotion, arising from experiences<br>of separation or failure.   | es   |
| Motivates behaviour to alleviate distressful circumstances   |      |
| <ol><li>Motivates cohesiveness of groups (to prevent separation)</li></ol>   |      |
|  |      |
|  |      |
| Based on Reeve (2009, p. 315)  | 24   |
|  |      |

| Joy | J | O٧ |
|-----|---|----|
|-----|---|----|

- Most positive emotion arising from experiencing desirable outcomes e.g., task success, achievement, getting what we want, pleasant surprise (opposite of causes of sadness)
- Energises, enthuses, makes optimistic (opp. of sadness) – increases willingness to engage in tasks and relationships; it also "soothes" → create pleasant well-being which helps to dissipate distress

Based on Reeve (2009, p. 316)

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#### **Interest**

- Most prevalent in day-to-day functioning (some ever present)
- Interest fluctuates and shifts from each event, thought, and action (being continually redirected)
- Interested in life events that involve our needs, well-being, or cortical arousal/curiousity (novel/complex tasks)
- Creates desire to explore, investigate, seek out, manipulate, and extract information from the objects that surround us
- 5. Underlies creativity and learning

Based on Reeve (2009, pp. 316-317)

Based on Reeve (2009, pp. 317-320)

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# What good are the emotions? Utility of emotion Coping Functions Social Functions

#### **Coping functions of emotion**

| Emotion      | Stimulus Situation    | Emotional Behavior     | Function of Emotion |
|--------------|-----------------------|------------------------|---------------------|
| FEAR         | Threat                | Running, flying away   | Protection          |
| ANGER        | Obstacle              | Biting, hitting        | Destruction         |
| Joy          | Potential mate        | Courting, mating       | Reproduction        |
| SADNESS      | Loss of valued person | Crying for help        | Reunion             |
| ACCEPTANCE   | Group member          | Grooming, Sharing      | Affiliation         |
| DISGUST      | Gruesome object       | Vomiting, pursing away | Rejection           |
| ANTICIPATION | New territory         | Examining, mapping     | Exploration         |
| SURPRISE     | Sudden novel object   | Stopping, alerting     | Orientation         |

Based on Reeve (2009, pp. Table 11.1 Functional view of emotional behaviour (Plutchik, 1980)\*)

| Social | functions | s of emotion |
|--------|-----------|--------------|
|--------|-----------|--------------|

- **1.** Communicate our feelings to others.
- 2. Influence how others interact with us.
- 3. Invite & facilitate social interaction.
- 4. Create, maintain, & dissolve relationships.

Based on Reeve (2009, pp. 319-320)

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### Emotions regulate behaviour (as part of a complex feedback system)

- 1. Coping (surviving & thriving) behaviour
- 2. Social behaviour

#### What is the difference between emotion & mood? Criteria **Emotions** Moods Significant III-defined Antecedents life events Influence Action-Specific Specificity cognition Time course Short-lived Long-lived Based on Reeve (2009, p. 322) 31 **Everyday mood** Positive affect and Negative affect are independent ways of feeling.

#### **Positive Affect**

- Pleasurable engagement
- Reward-driven, appetitive motivational system
- Approach behaviour
- Dopaminergic pathways

#### **Negative Affect**

- Unpleasant engagement
- Punishment-driven, aversive motivational system
- Withdrawal behaviour
- Serotonergic & noradrenergic pathways

Based on Reeve (2009, pp. \*)

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#### **Positive affects**

Everyday, low-level, general state of feeling good. Benefits of feeling good

#### Prosocial behaviour

Creativity

**Decision-making efficiency** 

**Sociability** 

Persistence in the face of failure

Based on Reeve (2009, pp. \*)

#### **Next lecture**



Aspects of emotion (Ch 12)

- ■Biological
- **■**Cognitive
- ■Social and cultural

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#### References

■ Reeve, J. (2009). *Understanding motivation and emotion* (5th ed.). Hoboken, NJ: Wiley.

Note: Image credits are in the slide notes

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