

Emotion

Evolutionary Reasons for Emotions

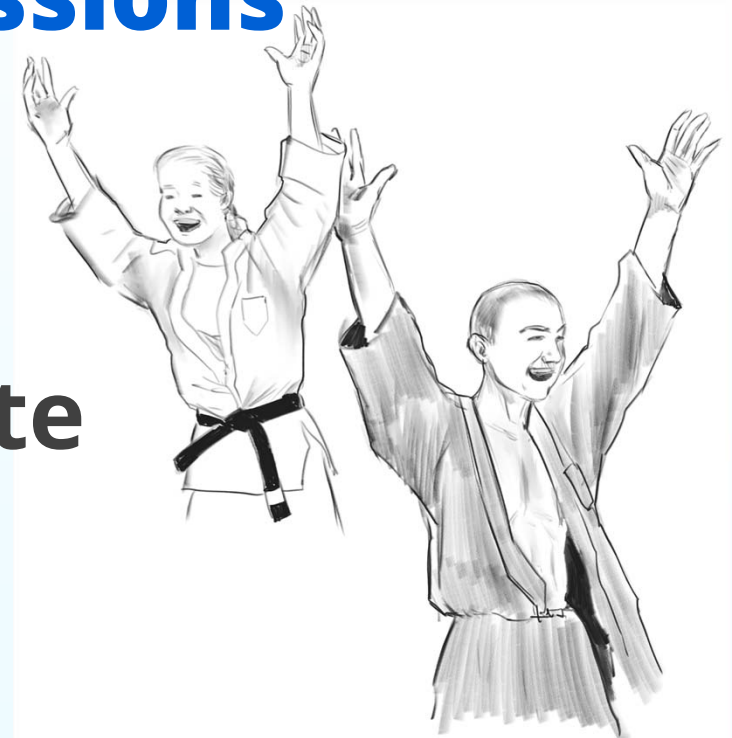
- **Guide behaviour**
- **Quick decisions**
- **Deal with threats and opportunities**

Facial Expressions

- **Paul Ekman**
- **Tribe in New Guinea not exposed to outside cultures**
- **Emotions are universal**

Facial Expressions

- **Blind and sighted athletes**
- **Emotions are innate and unlearned**



Facial Expressions

- **Compare expressions of humans and chimpanzees**
- **Primate system for expressing emotions**

Six Basic Emotions

Six Basic Emotions



Disgust



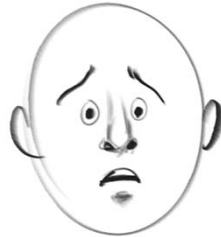
Happiness



Sadness



Anger



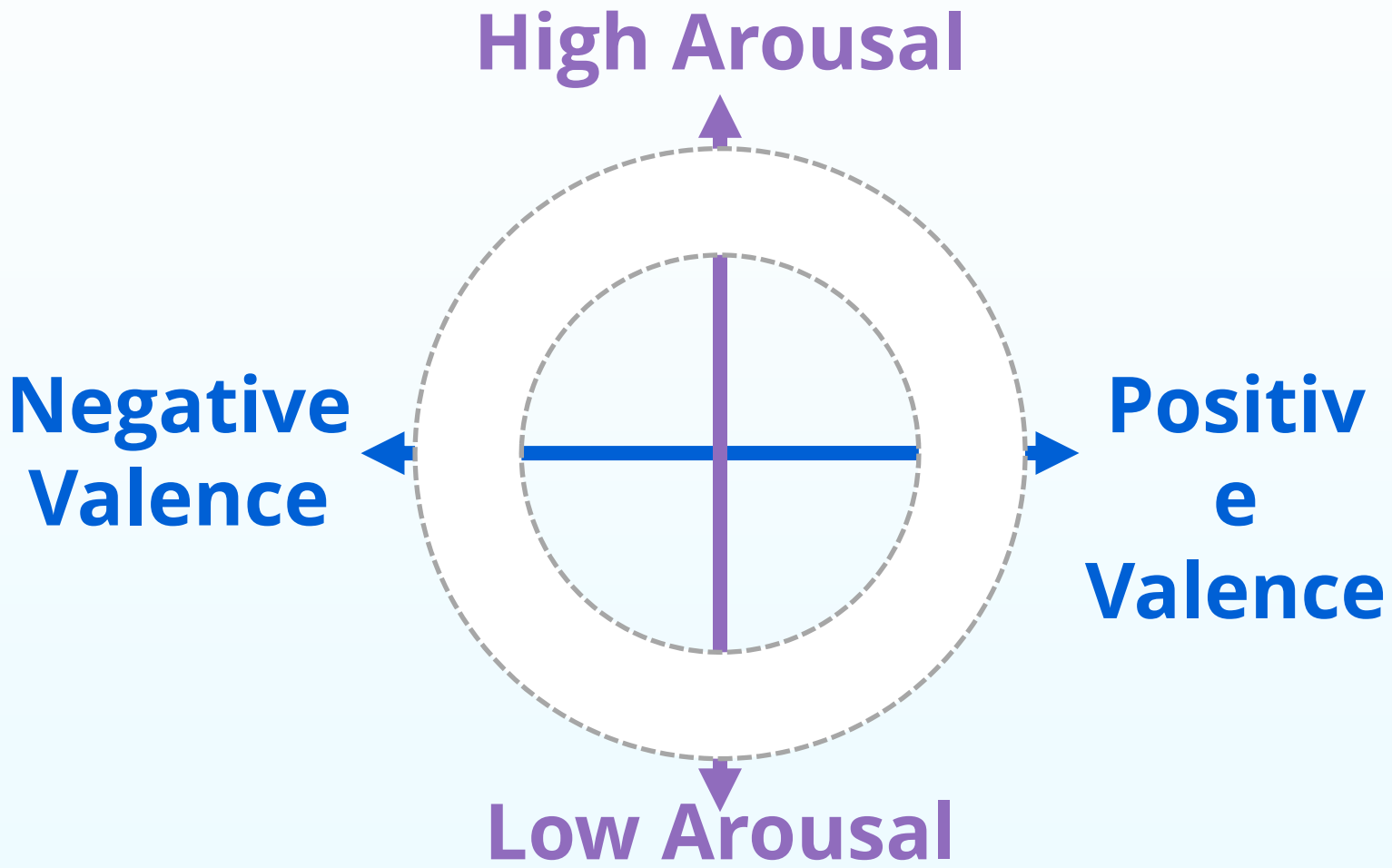
Fear

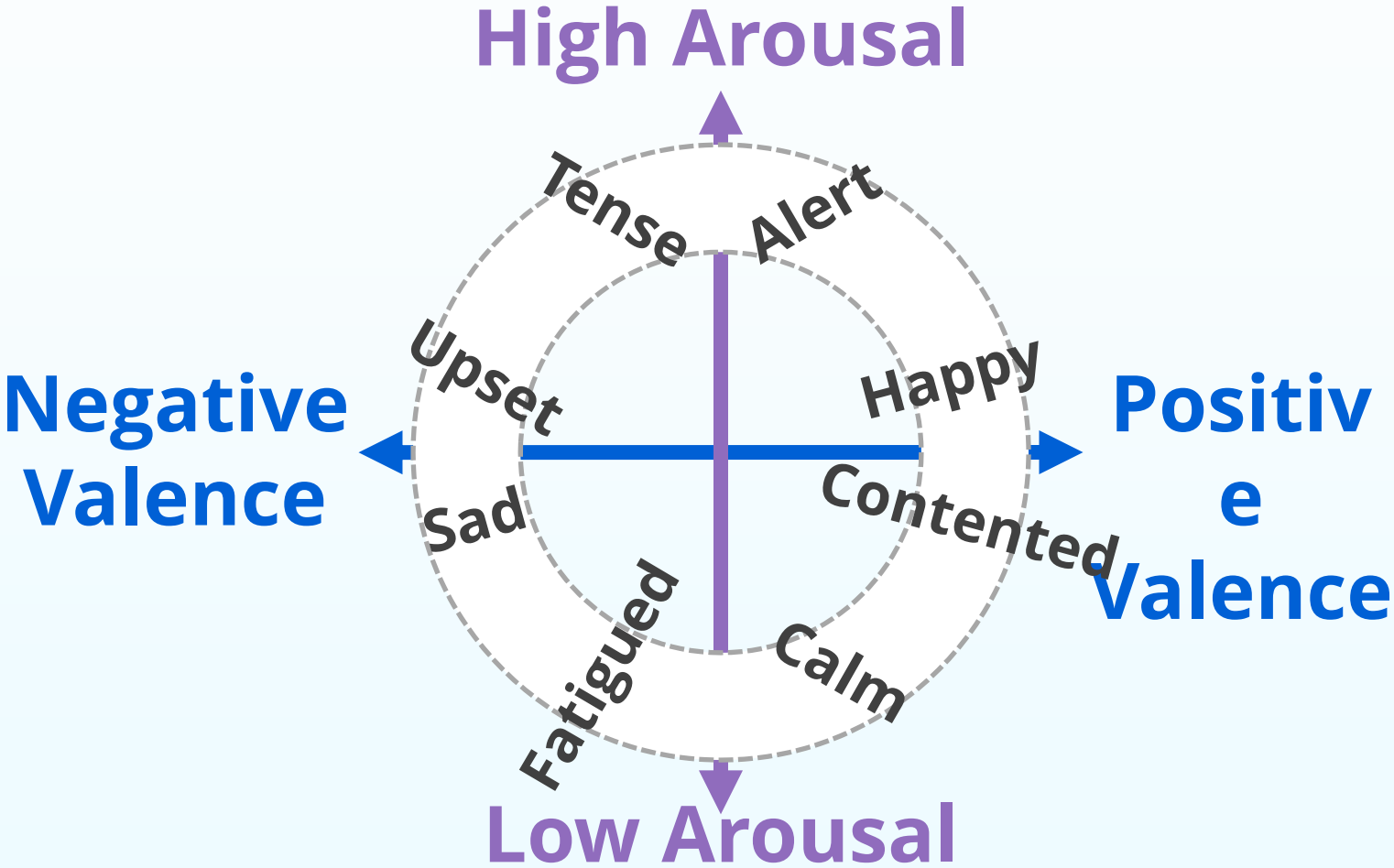


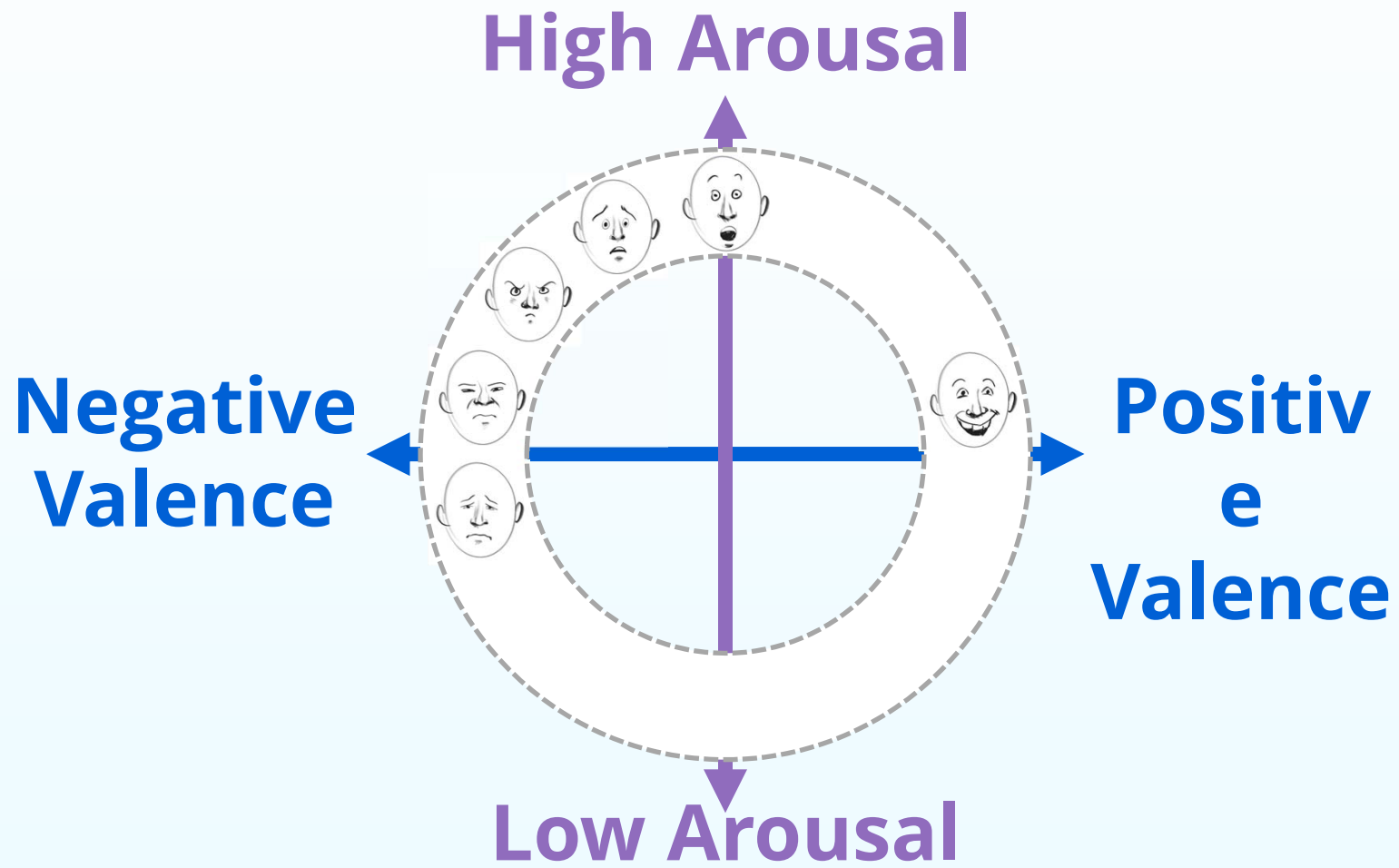
Surprise

Circumplex Model of Emotion

- **Valence (positive – negative)**
- **Arousal (high – low)**
- **Emotions associated with extremes (no neutral emotions)**







Specific Brain Regions

Fear	Amygdala
Disgust	Insula
Anger	Orbitofrontal cortex

Criteria for Basic Emotions

- **Distinctive universal signals (unique facial expressions)**
- **Emotion-specific physiology**
- **Automatic appraisal**

Criteria for Basic Emotions

- **Comparable in other primates**
- **Rapid onset**
- **Brief duration**
- **Unbidden occurrence**

