

Accessibility notes

Emotions



Accessibility Chair of UPC
Architecture, design and technology for all

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December 2022



Concepts

The emotions

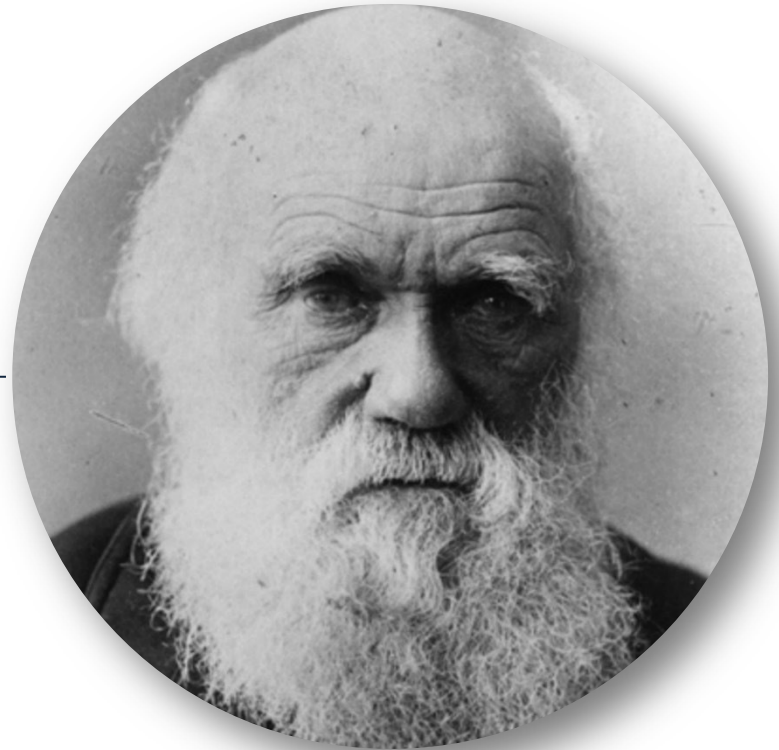
Emotions are psychophysiological reactions of living beings, which represent an internal response to certain stimuli.

An emotion is a state of mind which causes a spontaneous reaction.

The emotions

Charles Darwin

The expression of the emotions
in man and animals



The emotions

Charles Darwin defines 5 basic emotions

Joy



Fear



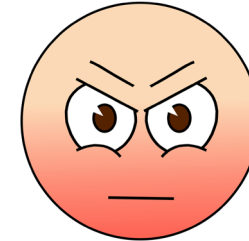
Sadness



Disgust



Anger



The emotions

Paul Ekman

Constants across cultures in the
face and emotion



The emotions

7 basic emotions by Paul Ekman

Joy



Fear



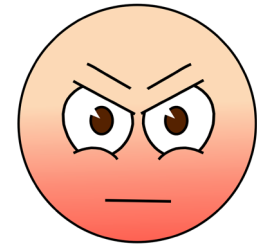
Sadness



Disgust



Anger



Disparagement



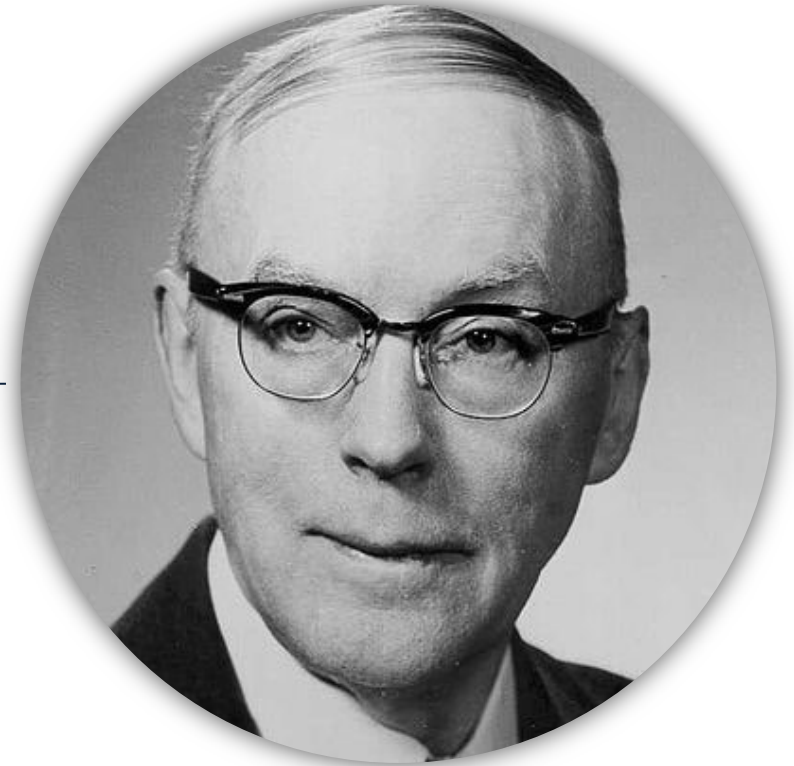
Surprise



The emotions

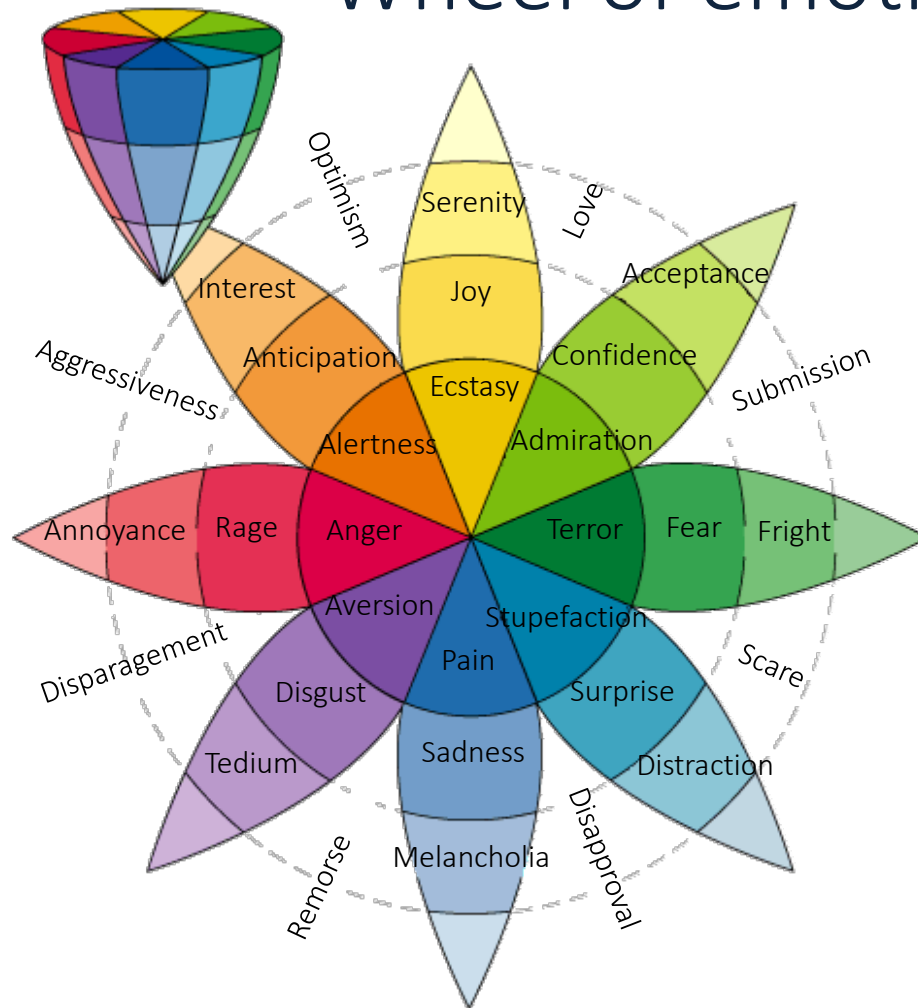
Robert Plutchik

Wheel of Emotions



The emotions

Wheel of emotions of R. Plutchik



- 8 basic emotions:
 joy sadness
 trust disgust
 fear anger
 surprise anticipation
- Each one has the opposite.
- The 8 secondary emotions are combinations of basic ones.

The emotions

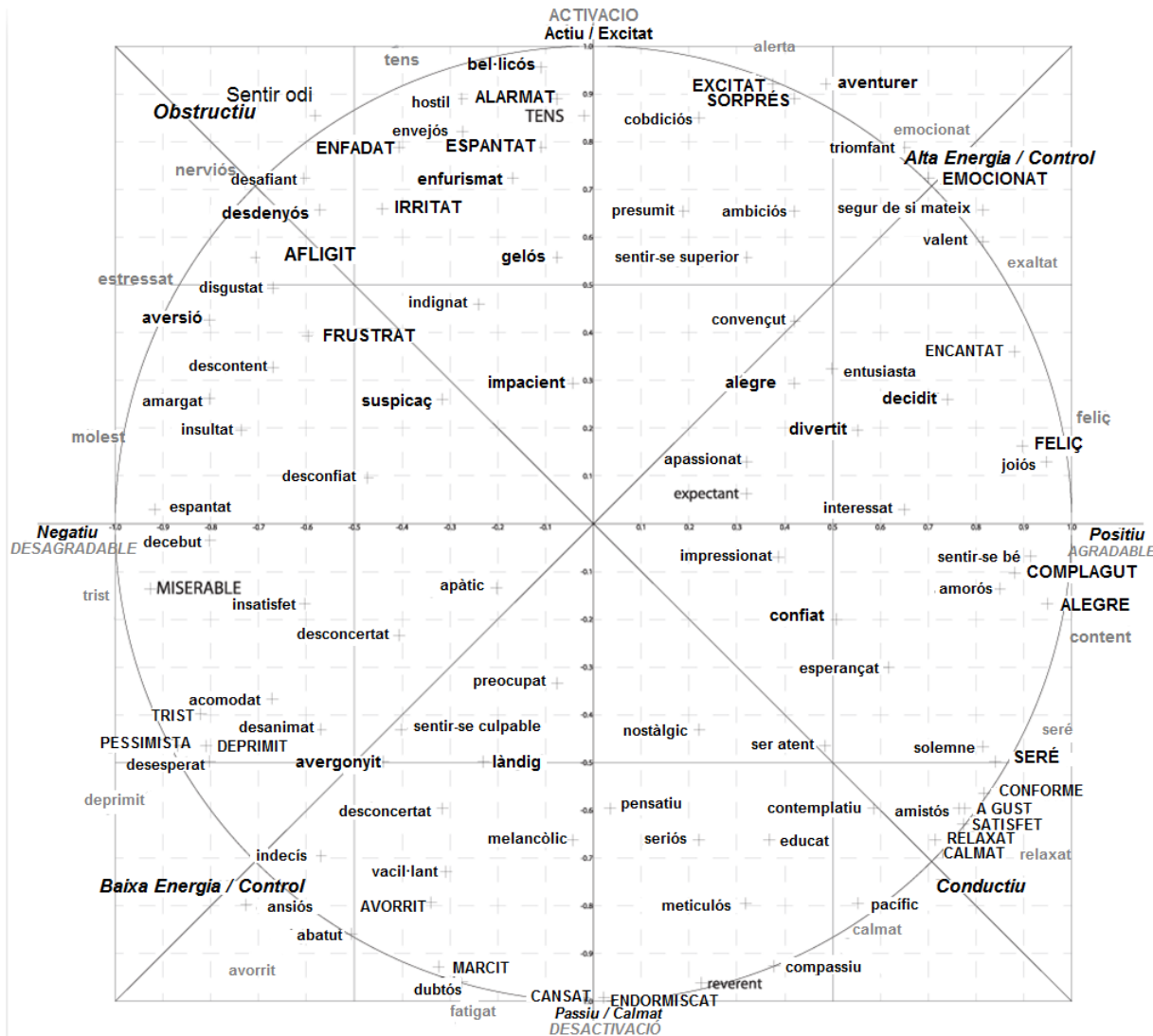
Georgios Paltoglou &
Michael Thelwall

Seeing Stars of Valence and
Arousal in Blog Posts



The emotions

Mapping Affective States to Ordinal Scales of Valence and Arousal (2013)



- | Active-Passive
- Positive-Negative
- / High-Low Energy and control
- \ Obstructive- Conductive

Affective computing

Rosalind W. Picard

Affective Computing



Affective computing

Affective computing (1995)

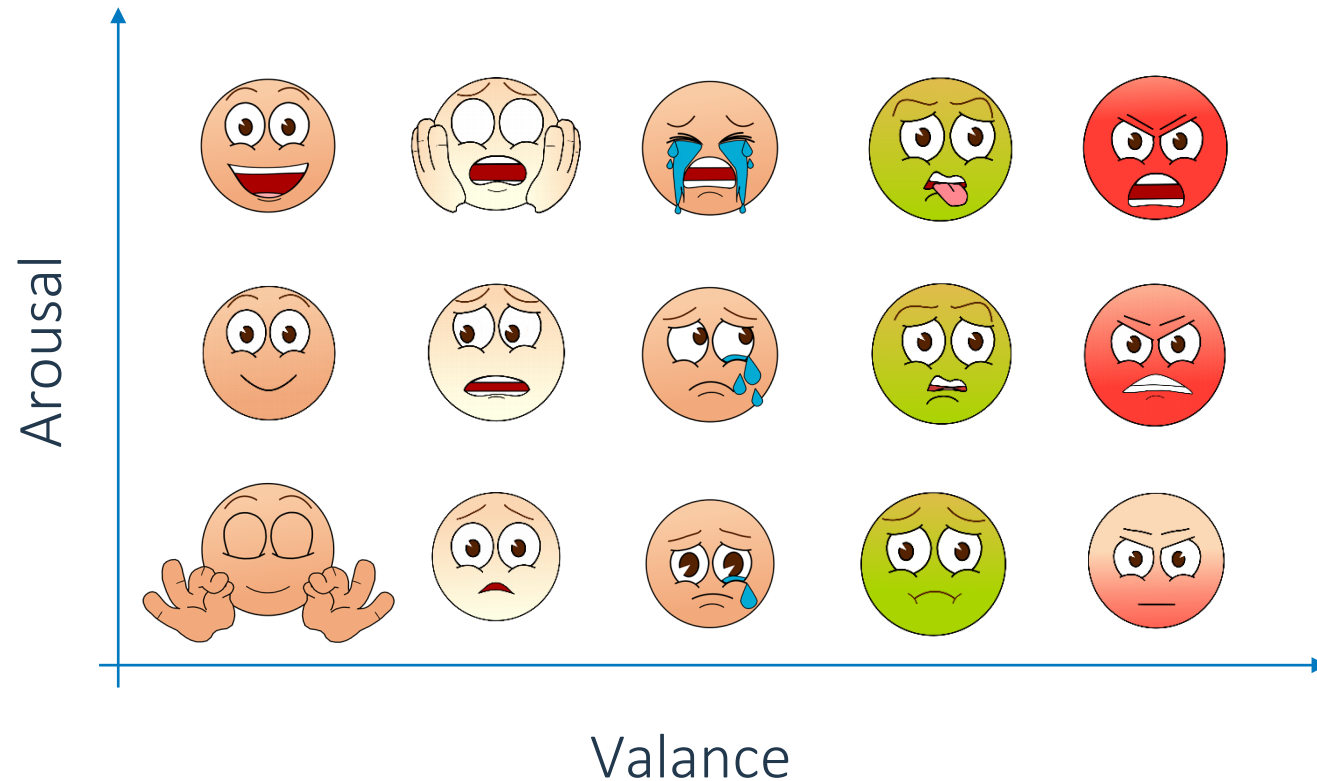


Affective
computing

Affective computing studies and develops systems and devices that recognize, interpret and simulate human emotions.

Affective computing

Quantification standards for measuring emotions



Affective computing

It is necessary to take a census of number variables to be able to determine the emotion.

Oral language (subjective)

Body language (complex)

Physiological constants (expensive)



Facial expression



Temperature



Language



Heart Beat



Ocular activity



Electro-dermal activity



Blood pressure



Strength



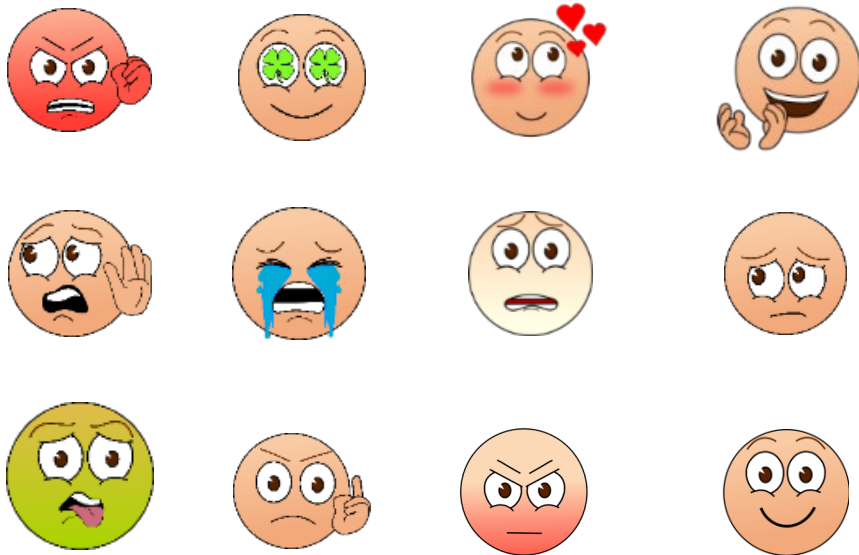
Body movement



Breathing

Affective computing

The Facial expression



Facial expression is a non-verbal form of communication, which allows us to transmit emotions and moods through movements of the facial muscles. These movements can be involuntary or voluntary.



Cases of use

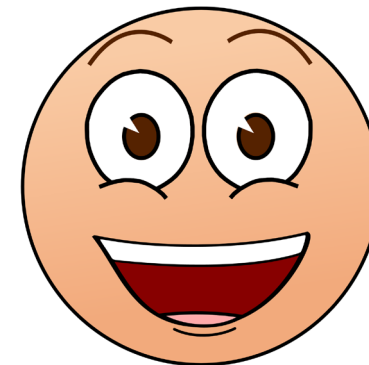
Case of use – TIC

WhatsApp



Case of use – Design

Application in the automotive



Case of use – Cinema

Application in the cinema

Joy



Sadness



Fear



Disgust



Anger



Case of use – SAAC

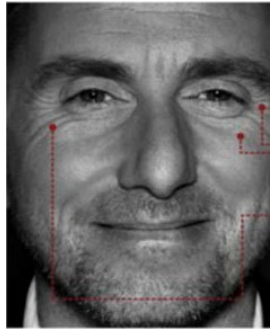


Analysis of Avatars
developed
For the Easy Communicator
Application

Case of use – SAAC



Paul Ekman's Theory



Joy



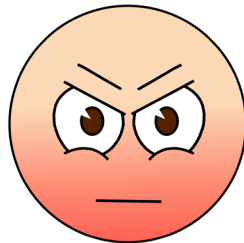
Sadness



Fear



Disgust



Anger



Surprise



Disparagement

Case of use – SAAC



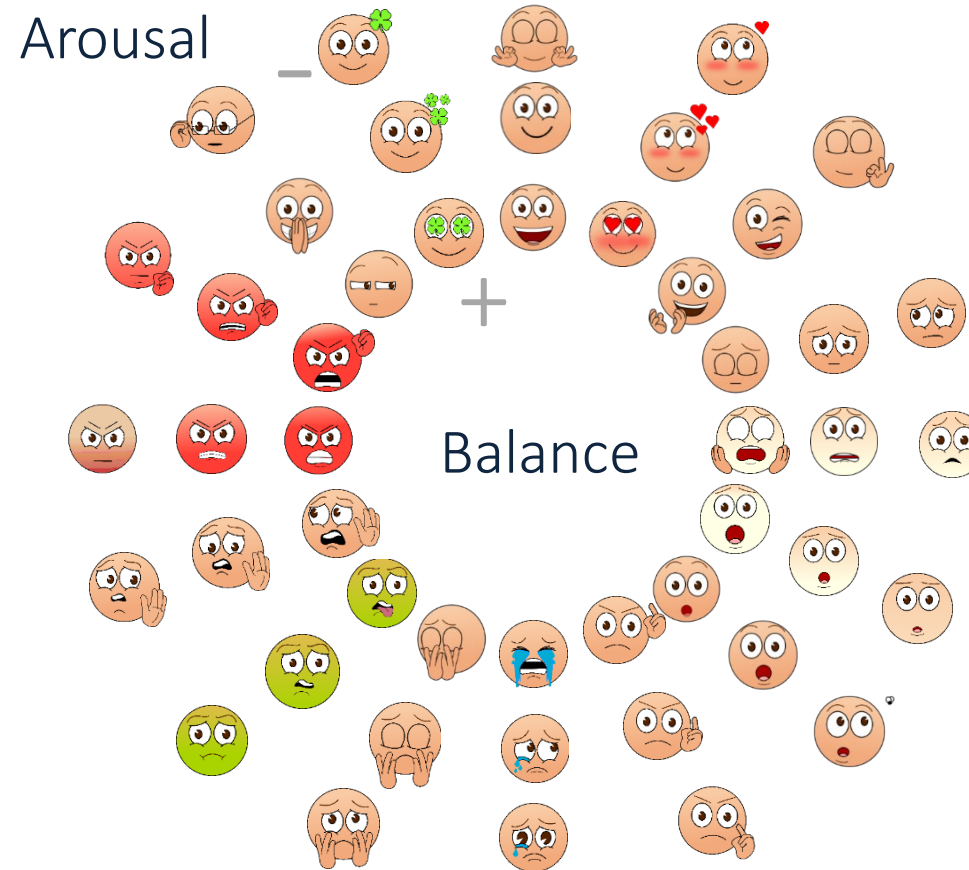
Paul Ekman's Theory



Case of use – SAAC



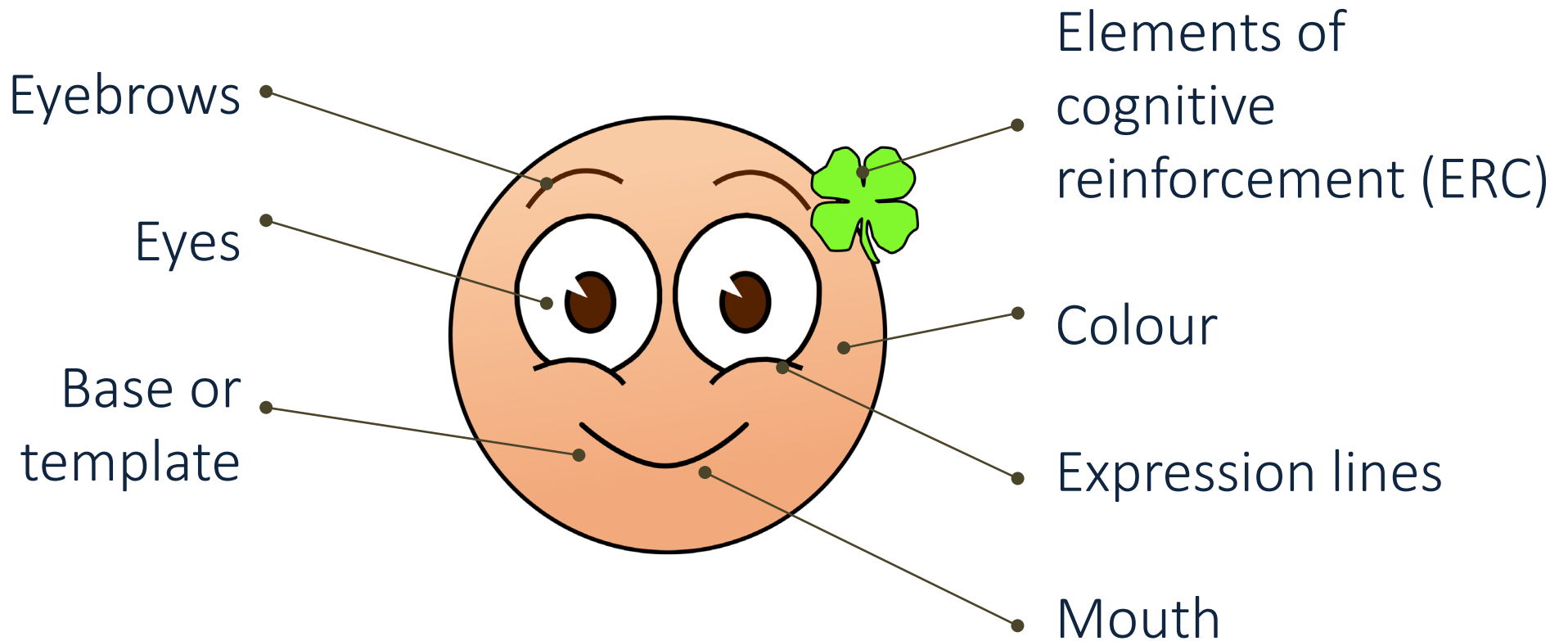
Robert Plutchik's Theory



Case of use – SAAC



The icons are made up of 7 elements

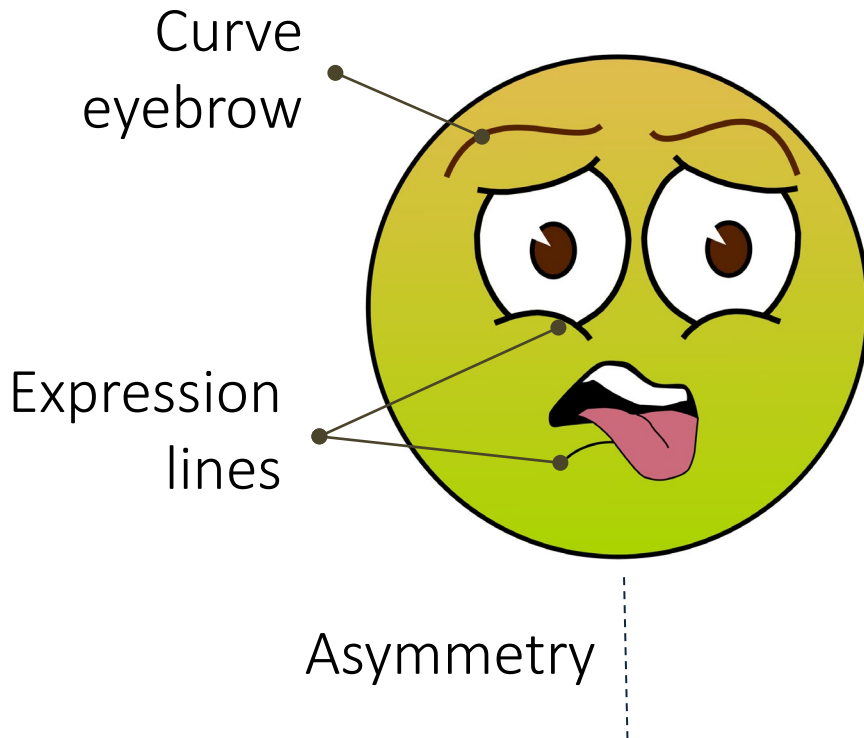


Case of use – SAAC



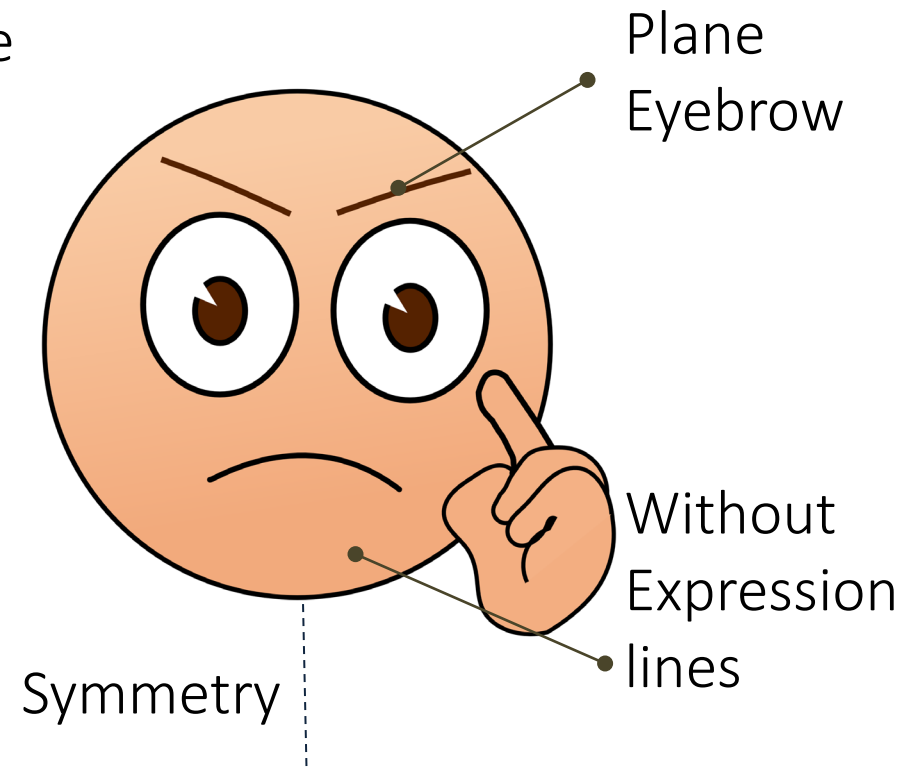
Expressivity

High expressivity



Low expressivity

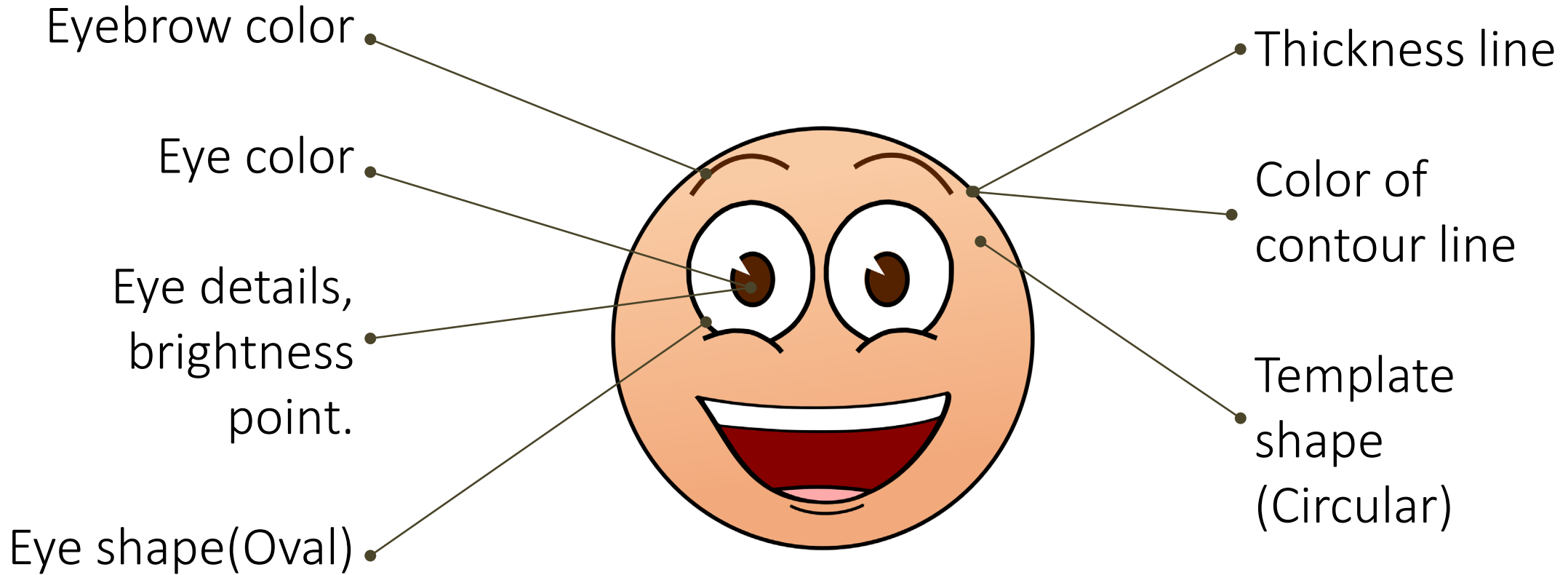
Perspective



Case of use – SAAC



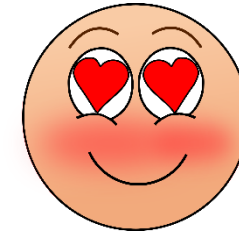
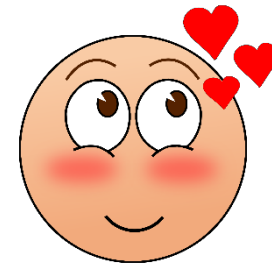
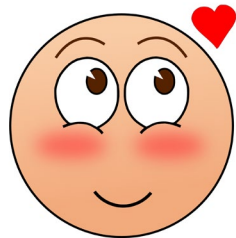
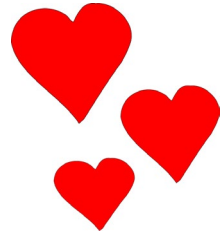
Aesthetic



Case of use – SAAC



Elements of cognitive reinforcement





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