Emotion

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Definition of Emotion

MERRIAM-WEBSTER DICTIONARY

NOUN

the affective aspect of consciousness : feeling

a state of feeling

a conscious mental reaction (as anger or fear) subjectively experienced as strong feeling usually directed toward a specific object and typically accompanied by physiological and behavioural changes in the body

WORD ORIGIN

middle French, from emouvoir to stir up, from Old French esmovoira, from Latin emovēre to remove, displace, from e- + movēre to move

First Known use in 1579
Definition of Emotion

Klaus Scherer's processing model of emotion consists of five elements.

- Cognitive appraisal of the events and objects.
- Internal feelings experienced by the individual.
- Physiological symptoms of the emotion.
- Action tendencies which prepare appropriate motor responses.
- External manifestation via changes in facial expression or vocal properties.
In neuroscience there are several emotion related terms which have slightly different meanings:

Feelings are the subjective experience of an emotion which is private, personal and intentional to the individual involved.

Moods are diffuse affective states that generally last for longer durations than emotions and which are usually less intense.

Affect is a general term which is used to describe the topics of emotion, feelings and moods generally.
In the early 20th century emotion was considered to be a cultural characteristic. Emotions were considered to be learned behaviours, which were transmitted from generation to generation like language.

The cultural theory suggested that people who lived in different communities would experience different emotions.
In the late 1960s the American Anthropologist Paul Ekman travelled to a remote and isolated region of New Guinea to spend time among the people of a preliterate society. He performed a study in which he told stories to the villagers and then asked them to express how the story made them feel by choosing from among photographs of the faces of Americans who expressed various emotions.
Upon his return to San Francisco Paul Ekman performed the experiment in reverse, asking Americans to choose from among pictures of facial expressions of the villagers of New Guinea.
Ekman concluded that at least some emotions are “basic”, “universal” or “innate”. It is now generally accepted that there are at least six basic emotions which are of rapid onset and which last only a few seconds at a time.
The philosopher Paul Griffiths has suggested that there is another type of emotion which he has called **higher cognitive emotions**.

- Love
- Guilt
- Shame
- Embarrassment
- Pride
- Envy
- Jealousy

Higher cognitive emotions are universal like the basic emotions but vary more from culture to culture. These emotions involve greater amounts of cognitive processing and are thus slower to build up and slower to disappear than basic emotions.
Natural selection appears to have lead to the evolution of higher cognitive emotions in order to deal with the ever greater social complexity of human society.
There is considerable debate about the exact number of emotions. One of the most extensive proposals is the system of primary and secondary emotions suggested by Parrot (2001).

<table>
<thead>
<tr>
<th>Primary Emotions</th>
<th>Secondary Emotions</th>
<th>Extending Branches of Feelings</th>
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<tbody>
<tr>
<td>Love</td>
<td>Affection</td>
<td>Adoration, Fondness, Liking, Attractiveness, Caring Tenderness, Compassion</td>
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<td></td>
<td>Lust/Sexual Desire</td>
<td>Infatuation, Desire, Passion</td>
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<td></td>
<td>Longing</td>
<td>Longing, Missing</td>
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<tr>
<td>Joy</td>
<td>Cheerful</td>
<td>Amusement, Bliss, Gaiety, Glee, Joy, Delight, Enjoyment, Happiness, Elation</td>
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<td></td>
<td>Zest</td>
<td>Enthusiasm, Zeal, Excitement, Thrill, Exhilaration</td>
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<td></td>
<td>Contentment</td>
<td>Pleasure, Satisfaction</td>
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<td></td>
<td>Pride</td>
<td>Triumph, Proud</td>
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<td></td>
<td>Optimism</td>
<td>Eagerness, Hope, Positive</td>
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<td></td>
<td>Enthrallment</td>
<td>Enthrallment, Enraptured</td>
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<td></td>
<td>Relief</td>
<td>Relief, Gratefulness, Thankfulness</td>
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<td>Surprise</td>
<td>Surprise</td>
<td>Amazement, Astonishment</td>
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<td></td>
<td>Irritability</td>
<td>Aggravation, Agitation, Annoyance, Groutchy, Grumpy</td>
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<td></td>
<td>Exasperation</td>
<td>Frustration</td>
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<td>Anger</td>
<td>Rage</td>
<td>Anger, Outrage, Fury, Wrath, Hostility, Bitter, Scorn, Spite, Vengefulness, Dislike</td>
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<tr>
<td></td>
<td>Disgust</td>
<td>Revulsion, Contempt, Loathing</td>
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<td></td>
<td>Envy</td>
<td>Jealousy, Covetness</td>
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<td></td>
<td>Torment</td>
<td>Abuse, Long-Suffering</td>
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<td>Sadness</td>
<td>Suffering</td>
<td>Agony, Anguish, Hurt</td>
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<tr>
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<td>Sadness</td>
<td>Depression, Despair, Unhappiness, Grief, Woe, Misery, Sorrow, Melancholy</td>
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<td></td>
<td>Disappoint</td>
<td>Dismay, Displeasure</td>
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<td></td>
<td>Shame</td>
<td>Guilt, Regret, Remorse, Embarrassment, Humiliation</td>
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<td></td>
<td>Neglect</td>
<td>Alienation, Dejection, Homesickness, Insecurity, Isolation, Loneliness, Rejection</td>
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<td></td>
<td>Sympathy</td>
<td>Pity, Empathy</td>
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<td>Fear</td>
<td>Horror</td>
<td>Alarm, Shock, Frightful, Terror, Panic, Hysteria, Mortification, Scared</td>
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<tr>
<td></td>
<td>Nervousness</td>
<td>Anxiety, Suspense, Uneasiness, Apprehension, Worry, Distress, Dread</td>
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</table>
Negative Emotions

Negative emotions such as anger, fear and disgust are thought to be the result of evolutionary adaptations which enhanced survival in life-threatening situations by narrowing thoughts and actions to those which most facilitate survival.

Anger (left) is characterised by the urge to attack, fear (middle) the urge to escape and disgust (right) the urge to expel.

Negative emotions are thought to have the greatest psychological weight, i.e. they have the biggest effect on attention, memory, reasoning and behaviour.
Positive Emotions

Positive emotions broaden momentary thought-action repertoires. Joy, for example, encourages playful behaviour. The broadened repertoires in turn build physical, intellectual, social and psychological resources which increase the odds of survival.

physical resources: coordination, strength and cardiovascular health

intellectual resources: information, skills and problem-solving

social resources: interpersonal skills, social interaction and bonding

psychological resources: resilience, optimism, goal orientation and sense of identity
Design Classic: The Emoticon

An emoticon is a pictorial representation of a facial expression using punctuation marks and letters, which is written to express a person's feelings or mood.

Emoticons can be traced back to the 19th century when they were used in casual and humorous writing.

In 1982 Scott Fahlman suggested the use of :-) and :-( for expressing emotion in digital communications.
Emotion in Design

Dan Hill (2007) in his book “Emotionomics” has suggested reasons why emotion matters in design, marketing and branding:

- Emotion drives reason more than reason drives emotion.
- The brain’s hardwiring makes us more primitive than we think.
- Feelings happen before thought, and they happen with great speed.
- Conscious thought is only a small portion of mental activity.
- Visual imagery and other non-verbal forms of communication predominate.
- We perceive matters in ways that emotionally protect our habits and biases.
Erdim Demir (2008) has suggested that individual episodes of emotion can accumulate into an experience, and that the accumulation of experiences leads to an emotional relationship.
Emotion in Design

Emotional responses are situated, thus they depend on the context and on the intentions and concerns of the individual.

Some intentions and concerns will be innate, while others will have been acquired from life experiences which were effected by time and culture.
Emotion in Design

Several perspectives currently exist regarding the role of emotion in design.

One of the most useful is the model proposed by Desmet (2002) which describes the evaluations or appraisals which people make about products.
Emotion in Design

Desmet (2002) suggested three types of evaluations or appraisals which a person can make when forming judgements about a product:

Products as objects: when the aesthetics of the product match our preconceptions regarding what is appealing we feel pleasure and attraction. Emotional responses in such cases can include positive emotions such as love, negative emotions such as disgust or neutral indifference.

Products as Agents: when the product is evaluated as an agent we consider how well it meets our standards and values. Positive emotions such as admiration can result or negative emotions such as contempt.

Products as Events: when the product is evaluated as an event we consider how well it helps to realise our future goals. The anticipated positive or negative effects shape the resulting emotional response.
Lines have feelings. In 1924 Poffenberger and Barrows asked 500 students to match 18 different lines to 47 different emotionally themed adjectives. A remarkable degree of agreement was found regarding the emotions which some lines symbolise.
According to the Web Online Analytics company KISSMETRICS the choice of colour has a large effect on customer purchasing behaviour. 85% of shoppers cite colour as the primary reason why they buy a product while 52% don’t return to a website due to its aesthetics.
One method for numerically quantifying the emotional response of an individual to a given design is the SAM emotional response measurement manikin, which in its most basic form evaluates emotional activation and valence.
Evaluating Emotional Response

A 2012 study by Giacomin and Bertola used the SAM manikin to quantify the emotional response to various visual formats for presenting heat and energy.
Desmet’s (2002) Product Emotion Measurement Instrument considers fourteen different emotional states which are represented by animated characters. An individual rates the extent to which he or she feels each emotion in response to the product by means of a three point scale.
A 2003 study by Desmet used the Product Emotion Measurement Instrument to quantify the human emotional response to the aesthetic styling of six models of automobile.
Dan Hill (2007) in his book “Emotionomics” described facial coding as a means for performing design and marketing evaluations. The facial response can be collected by means of either manual or automated video recording routines.
Evaluating Emotional Response


Figure 0.2 Introducing the say/feel gap.
Even though over half the subjects gave a positive verbal response to the TV spot involving the architect, less than a third of the emotional response was positive – a nearly 50 per cent drop.
Jonathan Chapman suggests that one path to environmental sustainability is that of emotionally durable design.

People tend to fall out of love with things like cellular telephones long before the devices actually become technologically obsolete.

In such cases environmental sustainability is not about longer lasting materials, but rather about creating a longer lasting relationship.
Chapman suggests the key characteristics of “narrative” and “surface”.

Narrative refers to the unique personal history which is shared between the person and the object, such as the history of purchase and use. Surface refers instead to how well the product ages, and what character it achieves over time. Through our use and misuse we create a patina that imparts ownership and uniqueness. For example each scratch of your mother’s old kitchen table has a story which can be recalled and cherished.

From the point of view of emotional durability a trendy disposable bamboo cutlery set is probably not as environmentally friendly as grandmother’s silverware.
Design Classic: Anna G Corkscrew

Alessandro Mendini designed the “Anna G” corkscrew for Alessi in 1994.

By anthropomorphising and gamifying its kitchen utensils the Alessi company transformed them from simple functional commodities to emotionally engaging lifestyle statements.
Design Classic: Apple IPod

Introduced in 2001 the Apple iPod portable media player has become a design icon and has contributed to the emotional relationship between Apple Inc. and its customer base.

In recent years the emotional engagement has become so extensive that neuroscience research performed using magnetic resonance imaging (MRI) has found that images of Apple products light up the same brain regions in customers as do images of a deity for people with religious beliefs.
Thank you.