

Emotion

The Emotion derived from the Latin word “**Emovere**” that means “move out, excitement, stir up or agitate”.

Defining Emotion

Emotion refers to the experience of feelings such as fear, joy, surprise, or anger. Like motives, emotions also activate and affect the behavior.

- Emotions, often called feelings, “Intense feelings” include experiences such as love, hate, anger, trust, joy, fear, and grief.
- In psychology, emotion is also defined as a complex state of feeling that results in psychological and physiological changes that influence thought and behavior.

It is the combination of three things by which changes the behavior of individual`s.

- i. **Cognitive / Psychological Processes** (Sensation, Attention, Thinking, Feelings, Motivation, Perceptions).
 - ii. **Physiological Changes** (Functions and properties of living organisms, including both the physical and chemical arousal and processes).
 - iii. **Behavior Changes** (Happiness, Sadness, Anger, Joy, Fear, Disgust, Surprise, Love, Hate).
- In psychology, emotion is considered a response to stimuli that involves characteristic physiological changes such as increase in pulse rate, rise in body temperature, greater or less activity of certain glands, and change in rate of breathing.
 - As human beings, we have all experienced a range of emotions from happiness, sadness, love, hate, to indifference along with any other emotions.
 - Emotions are personal tendencies to respond to internal and external variables.
 - Although everyone experiences emotions, scientists do not all agree on what emotions are or how they should be measured or studied. Emotions are complex and have both physical and mental components. Generally researchers agree that emotions have the following parts: subjective feelings, physiological (body) responses, and expressive behavior.

Emotionality is associated with a range of psychological phenomena, including mood, temperament, personality, disposition, and motivation. According to author David G. Meyers, human emotion involves "physiological arousal, expressive behaviors, and conscious experience."

Differences among Emotion, Mood and Feelings

In everyday language, people often use the terms "emotions" and "moods" interchangeably, but psychologists actually make distinctions between them. How do they differ? Emotions are specific reactions to a particular event that are usually of fairly short duration. Normally quite short-lived, but intense.

Emotions As discussed earlier emotional changes can be cognitive, physiological, and behavioral.

Duration

Chemicals released in response to our interpretation of specific stimuli. It takes our brains about 1/4 second to identify activate and about another 1/4 second to produce the chemicals. These chemicals are released throughout our bodies, not just in our brains. Emotion usually overpowers us immediately. However its intensity does not hold for long, rather it begins to subside with the passage of time.

Mood is a more general feeling such as happiness, sadness, frustration, contentment, or anxiety that lasts for a longer time.

Feelings are mental experiences of body states, which arise as the brain interprets emotions, themselves physical states arising from the body`s responses to the external stimuli.

Functions of Emotion

Through emotion people communicate their internal states and intensions to others, but emotion also functions to direct and energize individual`s thoughts and behavior. Emotions activate and guide cognitions also. Emotions organize, motivate, and sustain behavior and social relations.

Types of Emotions

The individual can have two types of impression: pleasant and unpleasant. The impressions that bring about mental and physical satisfaction are pleasant whereas the impressions that cause unease and tension are unpleasant. Similarly emotions are two distinct types:

Positive and Negative Emotions

Positive emotions that lead one to feel good about one`s self will lead to an emotional happy and satisfied result.

Negative emotions sap your energy and undermine your effectiveness.

Examples of Positive Emotions

- Happy
- Hopeful
- Energetic
- Confidence
- Peaceful
- Motivation
- Surprise
- Strength

Negative Emotions

- Sadness
- Hopeless
- Weakness
- Nervousness
- Panic
- Jealousy
- Shame
- Fear

Psychologists have also tried to identify the different types of emotions that people experience. A few different theories have emerged to categorize and explain the emotions that people feel.

1. Happiness

Happiness tends to be the one that people strive for the most. Happiness is often defined as a pleasant emotional state that is characterized by feelings of contentment, joy, gratification, satisfaction, and well-being. Research on happiness has increased significantly since the 1960s within a number of disciplines, including the branch of psychology known as positive psychology.

This type of emotion is sometimes expressed through:

- Facial expressions such as smiling
- Body language such as a relaxed stance
- An upbeat, pleasant tone of voice

While happiness is considered one of the basic human emotions, the things we *think* will create happiness tend to be heavily influenced by culture. For example, pop culture influences tend to emphasize that attaining certain things such as buying a home or having a high-paying job will result in happiness. The realities of what actually contributes to happiness are often much more complex and more highly individualized.

People have long believed that happiness and health were connected, and research has supported the idea that happiness can play a role in both physical and mental health. Happiness has been linked to a variety of outcomes including increased longevity and increased marital satisfaction.

Conversely, unhappiness has been linked to a variety of poor health outcomes. Stress, anxiety, depression, and loneliness, for example, have been linked to things such as lowered immunity, increased inflammation, and decreased life expectancy.

2. Sadness

Sadness is another type of emotion often defined as a transient emotional state characterized by feelings of disappointment, grief, hopelessness, disinterest, and dampened mood.

Like other emotions, sadness is something that all people experience from time to time. In some cases, people can experience prolonged and severe periods of sadness that can turn into depression.

Sadness can be expressed in a number of ways including:

- Dampened mood
- Quietness
- Withdrawal from others
- Crying

The type and severity of sadness can vary depending upon the root cause, and how people cope with such feelings can also differ. Sadness can often lead people to engage in coping mechanisms such as avoiding other people, self-medicating, and ruminating on negative thoughts. Such behaviors can actually exacerbate feelings of sadness and prolong the duration of the emotion.

3. Fear

Fear is a powerful emotion that can also play an important role in survival. When you face some sort of danger and experience fear, you go through what is known as the fight or flight response. Your muscles become tense, your heart rate and respiration increase, and your mind becomes more alert, priming your body to either run from the danger or stand and fight. This response helps ensure that you are prepared to effectively deal with threats in your environment.

Expressions of this type of emotion can include:

- Facial expressions such as widening the eyes and pulling back the chin
- Attempts to hide or flee from the threat
- Physiological reactions such as rapid breathing and heartbeat

Of course, not everyone experiences fear in the same way. Some people may be more sensitive to fear and certain situations or objects may be more likely to trigger this emotion.

Fear is the emotional response to an immediate threat. We can also develop a similar reaction to anticipated threats or even our thoughts about potential dangers, and this is what we generally think of as anxiety. Social anxiety, for example, involves an anticipated fear of social situations.

Some people, on the other hand, actually seek out fear-provoking situations. Extreme sports and other thrills can be fear-inducing, but some people seem to thrive and even enjoy such feelings.

Repeated exposure to a fear object or situation can lead to familiarity and acclimation, which can reduce feelings of fear and anxiety. This is the idea behind exposure therapy, in which people are gradually exposed to the things that frighten them in a controlled and safe manner. Eventually, feelings of fear begin to decrease.

4. Disgust

Disgust is another of the original basic emotions described by **Eckman**. Disgust can be displayed in a number of ways including:

- Turning away from the object of disgust
- Physical reactions such as vomiting or retching
- Facial expressions such as wrinkling the nose and curling the upper lip

This sense of revulsion can originate from a number of things, including an unpleasant taste, sight, or smell. Researchers believe that this emotion evolved as a reaction to foods that might be harmful or fatal. When people smell or taste foods that have gone bad, for example, disgust is a typical reaction.

Poor hygiene, infection, blood, rot, and death can also trigger a disgust response. This may be the body's way of avoiding things that may carry transmittable diseases. People can also experience moral disgust when they observe others engaging in behaviors that they find distasteful, immoral, or evil.

5. Anger

Anger can be a particularly powerful emotion characterized by feelings of hostility, agitation, frustration, and antagonism towards others. Like fear, anger can play a part in your body's fight or flight response. When a threat generates feelings of anger, you may be inclined to fend off the danger and protect yourself.

Anger is often displayed through:

- Facial expressions such as frowning or glaring
- Body language such as taking a strong stance or turning away from someone
- Tone of voice such as speaking gruffly or yelling
- Physiological responses such as sweating or turning red
- Aggressive behaviors such as hitting, kicking, or throwing objects

While anger is often thought of as a negative emotion, it can sometimes be a good thing. It can be constructive in helping clarify your needs in a relationship, and it can also motivate you to take action and find solutions to things that are bothering you.

Anger can become a problem, however, when it is excessive or expressed in ways that are unhealthy, dangerous, or harmful to others. Uncontrolled anger can quickly turn to aggression, abuse, or violence.

This type of emotion can have both mental and physical consequences. Unchecked anger can make it difficult to make rational decisions and can even have an impact on your physical health.

Anger has been linked to coronary heart diseases and diabetes. It has also been linked to behaviors that pose health risks such as aggressive driving, alcohol consumption, and smoking.

6. Surprise

Surprise is another one of the basic types of human emotions originally described by **Eckman**. Surprise is usually quite brief and is characterized by a physiological startle response following something unexpected.

This type of emotion can be positive, negative, or neutral. An unpleasant surprise, for example, might involve someone jumping out from behind a tree and scaring you as you walk to your car at night. An example of a pleasant surprise would be arriving home to find that your closest friends have gathered to celebrate your birthday.

Surprise is often characterized by:

- Facial expressions such as raising the brows, widening the eyes, and opening the mouth
- Physical responses such as jumping back
- Verbal reactions such as yelling, screaming, or gasping

Surprise is another type of emotion that can trigger the fight or flight response. When startled, people may experience a burst of adrenaline that helps prepare the body to either fight or flee.

Surprise can have important effects on human behavior. For example, research has shown that people tend to disproportionately notice surprising events. This is why surprising and unusual events in the news tend to stand out in memory more than others. Research has also found that people tend to be more affective by surprising arguments and learn more from surprising information.

Emotions and Their Effect on Human Behavior

There are many different types of emotions that have an influence on how we live and interact with others. At times, it may seem like we are ruled by these emotions. The choices we make, the actions we take, and the perceptions we have are all influenced by the emotions we are experiencing at any given moment.

Factors Effecting Emotions

- Personality
- Environment
- Weather
- Culture
- Stress
- Mood
- Motivations

Different changes during Emotions

Cognitive changes

The cognitive change is how we interpret certain situations or stimulations. This determines which emotion our body will feel. For example; if you are alone, sitting in the dark, watching a scary movie, and you hear a loud noise, you may become scared... fearing that there is an immediate threat or that you are in danger. This emotional response to this imaginary threat is just as powerful as it would be to a real threat. Our perception to the imaginary threat is what makes it feel real to us and causes the emotion in our body.

Physiological changes

Emotion is state in which feelings are strongly stimulated. The individual gets either very active and excited or very lazy and indifferent. Certain physiological changes take place in the individual during emotion. Studies and observations prove that physiological changes occur under the following three systems:

- 1. Autonomic Nervous System**
- 2. Adrenal Gland**
- 3. Limbic System**

Autonomic Nervous System

Changes due to the Autonomic Nervous System.

The autonomic nervous system is an autonomous system. It contains the muscles that control the involuntary movements of the individual. This system functions mechanically round the clock. The respiratory system, blood circulation, heartbeat, liver, stomach functions and functions of the glands. All function automatically under this system according to the situation.

The whole system under the influence of emotional states provides basis for physiological and behavioral changes. This system is consists of two parts:

- **Sympathetic Nervous System**
- **Para- Sympathetic Nervous System**

Sympathetic Nervous System

This system intensifies the basic activities for the survival of live. The nerves extending from the sympathetic nervous system are located in the eye, lungs, heart, liver, stomach, intestines and urinary bladder. When during emotion different organs of our body need more or less energy according to the nature of emotions, it is this system that controls the amount of energy, ensuring its supply to various bodily parts according to their need, and causes the requisite physiological and behavioral changes in the individual.

It is because of the sympathetic nervous system that during different emotions the heart beats faster, lung arteries dilate so that more oxygen may be taken in, the pupil of the eye expands, the liver releases glucose in greater quantity into the blood so that more energy may be generated, breathing grows faster, blood circulation intensifies, sweat appears more profusely, the throat and mouth become dry, blood coagulates quickly in case of injury, soft hair on the skin stands up, the stomach and intestinal function slows down (as a result of it, urination and defecation are held up temporarily) so that maximum blood may be supplied to the brain.

Besides this, the flow of energy automatically increases towards the organs involved in an emotional state so that those organs may deal with the situation effectively. For example, if the individual wants to escape during the emotion of fear the whole energy of his body will be diverted to the legs and he will run unimaginably fast; if the individual intends to grapple with someone in a bid to deal with a challenging situation all the energy of his body will be transmitted to his hands and arms so that he may tackle the situation. That is why; a thin and emaciated person when enraged sometimes inflicts physical harm on a strong opponent.

Para- Sympathetic Nervous System

The sympathetic nervous system cannot function for a long time in an emergency nor can it supply extra energy to body organs for long. Hence, the para-sympathetic nervous system intervenes and takes over its function soon.

The nerves of the para-sympathetic system are located beside those of the sympathetic nervous system so this system counteracts the changes brought about by the sympathetic nervous system. Under this system the pupil of the eye constricts, the lung veins contract and oxygen begins to be taken in as usual, the heartbeat slows down, the respiratory system starts functioning normally, the movements of stomach and intestines accelerate, the digestive system begins functioning routinely and urination and defecation also begin to follow normal pattern as the urinary bladder resumes functioning as usual.

Role of the Adrenal Gland

The autonomic nervous system controls the function of the adrenal gland. This gland is also responsible for producing different physiological and behavioral changes during emotion. They are two in number and are located above both the kidneys. Consists of two parts:

- **Adrenal Cortex**
- **Adrenal Medulla**

The adrenal medulla secretes two types of hormone:

- **Adrenaline**
- **Nor-Adrenaline**

Adrenaline hormone has the same effects as the sympathetic nervous system. They cause glucose to be released into the blood in greater quantity. When extra glucose is absorbed into the blood the body is charged with extraordinary energy, blood circulation, pulse rate and breathing accelerate, fear, anxiety and excitement, the skin roughens, hair stands on end and the individual gets prepared for Fight or Flight.

The secretion of nor-adrenaline produces the same effects as the para-sympathetic nervous system. It normalizes the heightened activity due to adrenaline and thus the balance in the secretion of fluids is maintained.

Both the adrenal gland and the autonomic nervous system cause physiological and behavioral changes during emotion.

Limbic System

The part of the forebrain that is attached with the hypothalamus is called the limbic system, often referred to as the "emotional brain", is found buried within the cerebrum. At the border of the brainstem and cerebral hemispheres it is a doughnut-shaped system of neural structures; associated with emotions **e.g.** fear and aggression, and drives like hunger and sex; regulates body temperature, blood sugar level and blood pressure.

Structures within the Limbic System

- Hypothalamus
- Hippocampus
- Amygdala

Hypothalamus

One of the smallest structures in the brain is linked to emotions. The neural structure lying below (hypo) the thalamus; Composed of several nuclei. Small bundles of neurons that regulate physiological processes involved in motivated behavior e.g. hunger, thirst, regulation of body temperature. Hypothalamus acts as the body's Thermostat. Helps govern the endocrine system via the pituitary gland.

Hippocampus

The hippocampus is the part of the limbic system that is important for memory and learning. It helps to carry out memory related functions

Amygdala

Two almond-shaped neural clusters in the limbic system that are linked with emotions. They are related with aggression and fear.

How Brain Influences our Emotions

The three most commonly studied neurotransmitters are dopamine, serotonin and norepinephrine.

Dopamine is related to experiences of pleasure and the reward-learning process. In other words, when you do something good, you're rewarded with dopamine and gain a pleasurable, happy feeling. This teaches your brain to want to do it again and again.

Serotonin is a neurotransmitter associated with memory and learning. Serotonin is a chemical that has a wide variety of functions in the human body. It is sometimes called the happy chemical, because it contributes to wellbeing and happiness.

Researchers believe it plays a part in the regeneration of brain cells, which has been linked to easing depression. An imbalance in serotonin levels results in an increase in anger, anxiety, depression and panic.

Norepinephrine helps moderate your mood by controlling stress and anxiety.

Behavioral component

This change has been called the outward expression of our emotions. Body gestures, posture, facial expressions, and our tone of voice display what emotions we are feeling. Many of our facial expressions are universal. For instance, if somebody has a mad look on their face, it doesn't matter what language they speak or where they are from, chances are they're mad. However, some emotional expressions are influenced by our cultures and society's rules for displaying emotions. For example, the guards outside of Buckingham Palace are not allowed to display any emotion on their face. Some people have described them as looking mad when in reality they are not.

During emotion the individual experience various changes, some of which are relate to external behavior.

Four types of changes are manifested in External Behavior

- **Destruction**
- **Approach**
- **Flight**
- **Stopping of Reaction**

Destruction

This behavior is manifested most intensely during the emotion of anger. When enraged the individual usually starts destroying things, attacks others and throws things around. Animals also attack others, bite, scratch, cry and growl in anger. Man shows emotional behavior within the bounds of decency. Abusing others, expressing hatred, backbiting, etc are all manifestations of destructive behavior.

Approach

This behavior is displayed in case of pleasant emotion. It is the opposite of destructive behavior. This behavior occurs in happiness, pride and surprise. The individual shows satisfaction and pleasure when he established contacts with others.

Flight

The individual opts for flight in fear, disappointment, failure and other such as unpleasant emotions. Running away from or evading reality and hiding oneself illustrate physical flight whereas drug addiction, regression, day-dreaming, repression and nomadic life, etc are examples of psychological flight.

Stopping of Reaction

This state also gives rise to unpleasant emotions. Sometimes the individual is so much overwhelmed with grief, sorrow, fear and fright that he goes into a coma, his eyes are reduced to a stone, his speaking power fails and he feels unable to move. A severe shock also reduces person to such a state.

How we perceive emotions

➤ Body Posture

The way we hold our bodies when we walk, stand and sit gives clues to other about our emotional state.

It clues them in to how relaxed or tense we are and how confident or shy we are.

➤ Speech Patterns

We may choose our words carefully when were angry or expressing happiness. Our emotions cause us not only to feel differently, but also to speak differently.

Our speech patterns also change depending on our emotional state. Our regular cadence can increase or decrease in rate, and pitch, tone, volume and our inflection and even accent may also be affected.

➤ Gestures

Gestures take on different meanings indifferent cultures. Gesturing in general is one way humans communicate emotion to each other nonverbally.

➤ Facial expressions

Our facial muscles are able to communicate important nonverbal messages in emotional expression and governed by nerves following a complex system of direct and indirect pathways to and from the motor cortex (voluntary smile circuit under conscious control) and the limbic system and brain stem (spontaneous smile circuit not under conscious control). This may explain why people's faces can express emotions like happiness, fear, and disgust without their being aware of it.

Examples, Anger, disgust, fear, happiness, sadness and surprise seem to be universal facial expressions that all humans unconsciously recognize and interpret.

Why do we need emotions?

Psychologists Says that Emotions help us to take action, to survive, cope and avoid danger, to make decisions, to understand others. Moreover, they help other people to understand us.

When we perceive someone's facial expression to reflect fear, we tend to instantly look out for dangerous or risky stimuli in the environment. Likewise, we feel comfortable and safe when sensing happiness in others. Consequently, emotions, cognitions, and behavior of human beings can easily be affected by emotional stimuli.

Verbal Communication

The simplest way to find out what someone is feeling is to ask. Sometimes we do ask people what they are feeling, with different results.

Verbal communication included sounds, words, language, and speech. Speaking is an effective way of communicating and helps in expressing our emotions in words.

Oral communication is also known as verbal communication. E.g., crying or laughing.

Voice

The tone of voice varies with the change in emotions. During the emotion of happiness the voice sounds like a song and laughter; in sorrow it feels like soaked in tears and sobs; in anger the voice becomes harsh; in fear it (voice) is strangled; sometimes it begins to falter in fear and grief.

Non-Verbal Communication

“Actions speak louder than words,” the saying goes, and people are often more eloquent with their bodies than they realize or intend. We transmit a good deal of information to others through our facial expressions, body postures, and physical distance in fact our bodies often send emotional messages that contradict our words.

Non-Verbal Expressions and Possible Interpretation of Emotions

Non-Verbal Expressions		Possible Interpretation of Emotions (Eye)
Direct eye contact	>	Attentiveness
Lack of contact	>	Withdrawal (not paying attention)
Looking down or away	>	Avoidance (not concentration)
Fixed Staring	>	Uptightness, Psychosis (mental disorder)
Eye blinking	>	Anxiety, Excitement

Non-Verbal Expressions (Mouth)		Possible Interpretation of Emotions
Smiling	>	Greeting, positive mood, denial
Tight lips	>	Stress, Anxiety, Concentration
Biting or chewing of lips	>	Anxiety, Bad habit
Open mouth	>	Surprise, boredom, Fatigue

Non-Verbal Expressions expressions)		Possible Interpretation of Emotions (facial
Flushed face	>	Embarrassment, Anxiety
Eyes open wide and mouth opening	>	Surprise, Sudden insight
Wrinkled	>	deep thought, sadness

Non-Verbal Expressions &arms)		Possible Interpretation of Emotions (shoulders
Shrugging shoulders	>	Uncertainty, or ambivalence (not bothered)
Slouched shoulders	>	Sadness, Withdrawal, Shyness, bad posture, Self-protection
Fold arms	>	closed to contact emotional distance (not showing emotions)
Open gesturing	>	Confidence, openness to disclosure
Stiff or Unmoving	>	Anger, Anxiety

Non-Verbal Expressions		Possible Interpretation of Emotions (legs &feet)	
Crossing & Uncrossing	>	Anxiety, Nervousness, Depression	
Foot tapping	>	Anxiety, Impatience	
Non-Verbal Expressions (body movement)		Possible Interpretation of Emotions (body movement)	
Leaning forward	>	Attentiveness, Interest	
Leaning away or back	>	Withdrawal, Rejection (un-involvement)	Relaxation, comfort
Turn to the side	>	Avoidance, Fear of rejection	
Rocking or repetitive motion	>	Anxiety, Nervousness, Bad Habit, Dev. Disorder (autism)	
Habitual movement (e.g,tapping, hair twirling)		> Focused attention, Impatience, Bad habit	

Role of Emotions in daily Life

Emotions seem to rule our daily lives. We make decisions based on whether we are happy, angry, sad, bored, or frustrated. We choose activities and hobbies based on the emotions they incite.

Emotions makes our life bright and enlightened, because without the experience of emotion, our life would be dull, uninteresting, gloomy and without any purpose.

Psychologists identified number of functions of emotions that have a vital role in our daily life.

Stirred up for the fight or flight action

After seeing a snake or after an un usual incident as natural disaster; the body is prepared to stirred up our bodies to face and deal them.

Modifying the future responses and behavior

Learning take place after the emotional state that prepares us to manifest appropriate behaviors in future, i.e., strategies should be adopted to minimize the aftermath of disasters and avoid us to face the snake.

Social interactions are enhanced

As emotions are both verbal and non-verbal so they help people to better understand the responses whether they are being expressed or not.

Purpose of Emotions

Emotions can play an important role in how we think and behave. The emotions we feel each day can compel us to take action and influence the decisions we make about our lives, both large and small. In order to truly understand emotions, it is important to understand the three critical components of an emotion.

These different elements can play a role in the function and purpose of your emotional responses. Emotions can be short-lived, such as a flash of annoyance at a co-worker, or long-lasting, such as enduring sadness over the loss of a relationship. But why exactly do we experience emotions? What role do they serve?

Emotions Can Motivate Us to Take Action

When faced with a nerve-wracking exam, you might feel a lot of anxiety about whether you will perform well and how the test will impact your final grade. Because of these emotional responses, you might be more likely to study. Since you experienced a particular emotion, you had the motivation to take action and do something positive to improve your chances of getting a good grade.

We also tend to take certain actions in order to experience positive emotions and minimize the probability of feeling negative emotions. For example, you might seek out social activities or hobbies that provide you with a sense of happiness, contentment, and excitement. On the other hand, you would probably avoid situations that might potentially lead to boredom, sadness, or anxiety.

Emotions Help Us Survive, Thrive, and Avoid Danger

Naturalist Charles Darwin believed that emotions are adaptations that allow both humans and animals to survive and reproduce. When we are angry, we are likely to confront the source of our irritation. When we experience fear, we are more likely to flee the threat. When we feel love, we might seek out a mate and reproduce.

Emotions serve an adaptive role in our lives by motivating us to act quickly and take actions that will maximize our chances of survival and success.

Emotions Can Help Us Make Decisions

Our emotions have a major influence on the decisions we make, from what we decide to have for breakfast to which candidates we choose to vote for in political elections.

Researchers have also found that people with certain types of brain damage affecting their ability to experience emotions also have a decreased ability to make good decisions.

Even in situations where we believe our decisions are guided purely by logic and rationality, emotions play a key role. Emotional intelligence, or our ability to understand and manage emotions, has been shown to play an important role in decision-making.

Emotions Allow Other People to Understand Us

When we interact with other people, it is important to give clues to help them understand how we are feeling. These cues might involve emotional expression through body language, such as various facial expressions connected with the particular emotions we are experiencing.

In other cases, it might involve directly stating how we feel. When we tell friends or family members that we are feeling happy, sad, excited, or frightened, we are giving them important information that they can then use to take action.

Emotions Allow Us to Understand Others

Just as our own emotions provide valuable information to others, the emotional expressions of those around us give us a wealth of social information. Social communication is an important part of our daily lives and relationships, and being able to interpret and react to the emotions of others is essential. It allows us to respond appropriately and build deeper, more meaningful relationships with our friends, family, and loved ones. It also allows us to communicate effectively in a variety of social situations, from dealing with an irate customer to managing a hot-headed employee.

Charles Darwin was one of the earliest researchers to scientifically study emotions. He suggested that emotional displays could also play an important role in safety and survival. If you encountered a hissing or spitting animal, it would clearly indicate that the creature was angry and defensive, leading to you back off and avoid possible danger.

Understanding the emotional displays of others gives us clear information about how we might need to respond in a particular situation.

As you have learned, our emotions serve a wide variety of purposes. Emotions can be fleeting, persistent, powerful, complex, and even life-changing. They can motivate us to act in particular ways and give us the tools and resources we need to interact meaningfully in our social worlds.

How emotions influence our thinking?

Emotions have a certain power over our thoughts. Our first experience of a new situation is always among our emotions, feelings, and attitudes. As such, our emotions are laying the groundwork for the thinking that is to come”, says **Ron Richard** in his article about dispositions, attitudes, and habits.

The fact that emotions appear “pre-cognitively” (i.e., prior to thoughts) is actually quite helpful. Under impending threats, there simply is no time to think. Instead, emotions “take over” and trigger immediate behavioral responses in split seconds, preventing negative outcomes. Emotions support decision making, serve as a source of motivation to select and take appropriate action.

How can emotions be measured?

Emotions can be measured using several cognitive-behavioral methods such as Verbal Proficiency Non-Verbal Actions EEG, GSR, ECG, Facial Expression Analysis, or Eye Tracking.

Electroencephalography (EEG)

EEG has the ability to measure the electrical activity of brains.

GSR Galvanic Skin Response

One of the most sensitive measures for emotional arousal is Galvanic Skin Response (GSR), also referred to as Electrodermal Activity (EDA) or Skin Conductance (SC)

GSR (Galvanic Skin Response) is strongly linked to criminals sitting in a shady backyard room hooked up to a polygraph.

ECG (electrocardiography) is a method of collecting electrical signals generated by the heart. This allows us to understand the level of physiological arousal in emotions, that someone is experiencing, and what parameters are of interest. but it can also be used to better understand someone's psychological state.

Facial Expression Analysis,

Emotions are the essence of what makes us human. They impact our daily routines on our way to work, our attention, perception, and memory. Decision-making and social interaction is also heavily driven by emotions.

One of the strongest indicators for emotions is our face as we laugh or cry we're putting our emotions on display, allowing others to infer our current emotional state.

Polygraph

A polygraph, most commonly referred to as a lie detector, is a device that is used by law enforcement to test the physiological responses of individuals to certain questions. Polygraphs are used under the theory that most people do not lie or deceive without some feelings of anxiety or nervousness. The physiological systems that a polygraph focuses on are heart rate, blood pressure, respiratory rate, and how much a person sweats.

Theories of Emotion

The major theories of emotion can be grouped into three main categories: physiological, neurological, and cognitive. Physiological theories suggest that responses within the body are responsible for emotions. Neurological theories propose that activity within the brain leads to emotional responses. Finally, cognitive theories argue that thoughts and other mental activity play an essential role in forming emotions.

Evolutionary Theory of Emotion

It was naturalist Charles Darwin who proposed that emotions evolved because they were adaptive and allowed humans and animals to survive and reproduce. Feelings of love and affection lead people to seek mates and reproduce.

Feelings of fear compel people to either fight or flee the source of danger.

According to the evolutionary theory of emotion, our emotions exist because they serve an adaptive role. Emotions motivate people to respond quickly to stimuli in the environment, which helps improve the chances of success and survival.

Understanding the emotions of other people and animals also plays a crucial role in safety and survival. If you encounter a hissing, spitting, and clawing animal, chances are you will quickly realize that the animal is frightened or defensive and leave it alone. By being able to interpret correctly the emotional displays of other people and animals, you can respond correctly and avoid danger.

The James-Lange Theory of Emotion

The **James-Lange theory** is one of the best-known examples of a physiological theory of emotion. Independently proposed by psychologist **William James** and physiologist **Carl Lange**, the James-Lange theory of emotion suggests that emotions occur as a result of physiological reactions to events.

This theory suggests that when you see an external stimulus that leads to a physiological reaction. Your emotional reaction is dependent upon how you interpret those physical reactions. For example, suppose you are walking in the woods and you see a grizzly bear. You begin to tremble, and your heart begins to race. The James-Lange theory proposes that you will interpret your physical reactions and conclude that you are frightened ("I am trembling. Therefore, I am afraid"). According to this theory of emotion, you are not trembling because you are frightened.

Instead, you feel frightened because you are trembling.

The Cannon-Bard Theory of Emotion

Another well-known physiological theory is the **Cannon-Bard theory of emotion**. Walter Cannon disagreed with the James-Lange theory of emotion on several different grounds. First, he suggested, people can experience physiological reactions linked to emotions without actually feeling those emotions. For example, your heart might race because you have been exercising and not because you are afraid.

Cannon also suggested that emotional responses occur much too quickly for them to be simply products of physical states.

When you encounter a danger in the environment, you will often feel afraid before you start to experience the physical symptoms associated with fear such as shaking hands, rapid breathing, and a racing heart.

Cannon first proposed his theory in the 1920s and his work was later expanded on by physiologist Philip Bard during the 1930s. According to the Cannon-Bard theory of emotion, we feel emotions and experience physiological reactions such as sweating, trembling, and muscle tension simultaneously.

More specifically, it is suggested that emotions result when the thalamus sends a message to the brain in response to a stimulus, resulting in a physiological reaction. At the same time, the brain also receives signals triggering the emotional experience. Cannon and Bard's theory suggests that the physical and psychological experience of emotion happen at the same time and that one does not cause the other.

Schachter-Singer Theory

Also known as the two-factor theory of emotion, the **Schachter-Singer Theory** is an example of a cognitive theory of emotion. This theory suggests that the physiological arousal occurs first, and then the individual must identify the reason for this arousal to experience and label it as an emotion. A stimulus leads to a physiological response that is then cognitively interpreted and labeled which results in an emotion.

Schachter and Singer's theory draws on both the James-Lange theory and the Cannon-Bard theory of emotion. Like the James-Lange theory, the Schachter-Singer theory proposes that people do infer emotions based on physiological responses. The critical factor is the situation and the cognitive interpretation that people use to label that emotion.

Like the Cannon-Bard theory, the Schachter-Singer theory also suggests that similar physiological responses can produce varying emotions. For example, if you experience a racing heart and sweating palms during an important math exam, you will probably identify the emotion as anxiety. If you experience the same physical responses on a date with your significant other, you might interpret those responses as love, affection, or arousal.

Cognitive Appraisal Theory

According to appraisal theories of emotion, thinking must occur first before experiencing emotion. **Richard Lazarus** was a pioneer in this area of emotion, and this theory is often referred to as the Lazarus theory of emotion.

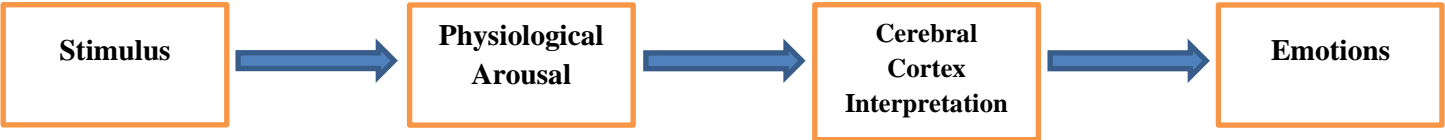
According to this theory, the sequence of events first involves a stimulus, followed by thought which then leads to the simultaneous experience of a physiological response and the emotion. For example, if you encounter a bear in the woods, you might immediately begin to think that you are in great danger. This then leads to the emotional experience of fear and the physical reactions associated with the fight-or-flight response.

Facial-Feedback Theory of Emotion

The facial-feedback theory of emotions suggests that facial expressions are connected to experiencing emotions. **Charles Darwin** and **William James** both noted early on that sometimes physiological responses often had a direct impact on emotion, rather than simply being a consequence of the emotion. Supporters of this theory suggest that emotions are directly tied to changes in facial muscles. For example, people who are forced to smile pleasantly at a social function will have a better time at the event than they would if they had frowned or carried a more neutral facial expression.

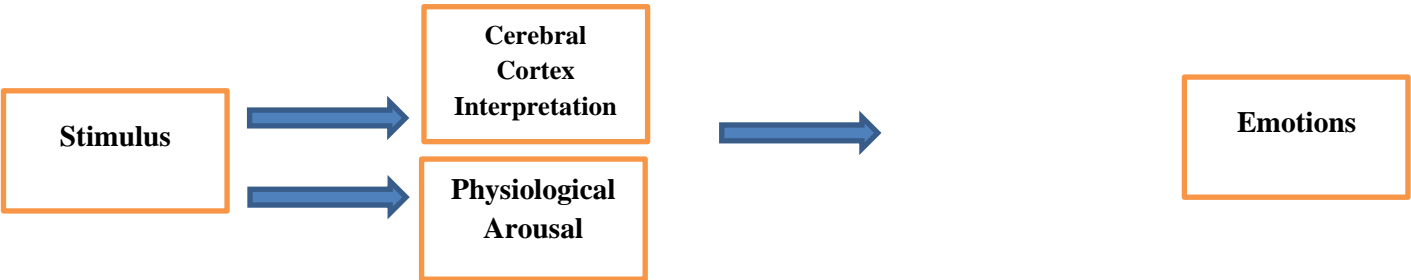
James-Lange theory

States that stimuli cause physiological changes in our bodies, and emotions result from those physiological arousal.



Cannon-Bard Theory

States that the experience of emotion occurs simultaneously with biological changes.



Cognitive Appraisal Theory

States that emotional experience depends on one`s perception or judgementsn one`s perception or judgment of the situation one is in.

