FEELING AND EMOTIONS
FEELING

• Feeling is attitudes towards certain topics.
• It is both sensory and motor.
• On the sensory side, it is the sensation mass unanalysed and not utilized to indicate facts.
• On the motor side, it is the general set to act towards an object according to its characteristics as we are acquainted with them.
EMOTIONS

• Emotions are a moved or stirred up state of feeling of the organism.
• Several emotions are distinguished in practice by stating the external situation in which each occurs and type of overt response it demands.
• Fear is the emotional response to danger, anger to interference… etc.
Emotional Expression

• The term emotional expression usually refers to the autonomic changes described later.

• Facial expression, body language, eye language and artistic modes of expression are more important in human life.
Emotional Experience

• Emotional behaviour is said to set in when the manifestations of emotions surpass the normal accompaniments of a certain idea, a given situation or a related meaning.
EFFECT OF EMOTIONS ON PSYCHE AND SOMA

- Emotions affect both psyche and soma (body) under normal conditions as well as pathological state.
A. Effects on the Psyche: Emotions influence other psychological functions implicitly or explicitly.

1. Emotions influence the preparatory state for dealing with the environment.
2. Perception is affected by emotions as thinking is also affected.
3. Emotions direct the attention towards certain objects and away of others.
4. Facilitate (within limits) or hinders learning and memory.
5. Are considered the fuel of motivation and creation.
B. Under Abnormal conditions: Emotions may reach a pathological functions e.g. abnormal emotion of sadness (depression) well influence thinking causing difficulty and slowness and it will minimize motivations as well.
B- Effects on the Soma

- Emotions affect the bodily functions mainly through the sympathetic nervous system (and adrenal medulla gland).
- The endocrinal system is directly related to emotional changes: The thyroid is stimulated, the anterior and posterior pituitary depends partly on emotions the stress reaction is partly abnormal and is responsible for more liberation of (ACTH).
• Adrenaline and noradrenaline hormones are hormones of combat (fight and flight).
• All the alterations in bodily functions could be understood though considering the requirements of a combating primitive bodily battle.
• The activation of circulation (faster heart, contracted viscera and spleen, the better is agulation increased prothrombin level, the pale skin, subcutaneous vasoconstriction etc., the moist hands (sweating) could all be looked at as to facilitate fight component of the combat.

• The ejaculation without erection, the more blood to skeletal muscle and the abortion of pregnant female are example of flight component of the combat.
The Effect of Emotion on the Body May be Abnormal (Pathological)
1. Emotion may exaggerate an already present illness e.g. anxiety may exaggerate bronchial asthma.

2. Emotion may prepare for actual organic pathology e.g. peptic ulcer.

3. Emotions may participate in the establishment of certain disorder as essential hypertension.

4. Emotion can produce organic dysfunction while the organ is structurally free as in hysterical paralysis.
MEASUREMENT OF EMOTIONS
A- Physiological Methods:

– By quantitative assessment of associated physiological changes (pulse, degree of sweat, blood pressure, respiration … etc).

– The lie detecting apparatus (deceptogram) is based on the idea that the liar is emotionally aroused. It records the change in body physiology.
B- Psychological Methods:
   – Observation method.
   – Mental testing by questionnaire method.
THEORIES OF EMOTIONS
1) Charles Darwin’s Evolutionary Theory (1872): Claimed that unlearned facial expressions were inherited from ancestors. He suggested that our facial expressions date back to a prehuman stage of animal development.

2) William James’s Instinct Theory (1880): Claimed that emotional responses were instinctive i.e. inborn reactions to particular stimuli.
3) James- Lange’s Theory (1890): Suggests that the emotion be due to the conscious awareness of the bodily changes associated with the appropriate response. This may refer to the possibility that emotions are but secondary phenomena for simplicity we are afraid.
4) Schacter & Singer (1962) cognitive theory (Modified Lange theory): According to their theory people seek to understand source of their autonomic arousal. Different people may experience a given state of arousal as fear, anger or happiness deepness depending on what they think caused the arousal. If they attribute the arousal to a pill they took, they may not experience the arousal as emotion at all.
5) Cannon Bard’s Thalamic Theory (1929-1984):

- Bard (1984) supported the view of Cannon (1929) describing the emotion as a neural event involving the thalamus, hypothalamus and cerebral cortex.

- The sensory information reaches the thalamus (the secretary of the brain) then the impulses pass in two ways: one to the cerebral cortex (emotional experience) and the other one to the hypothalamus which is responsible for the (emotional expression).
6) Lindsly’s Activation Theory (1951)

Depending up on EEG recordings, he observed that the level of emotional arousal is directly related to brain activity, particularly the reticular activating system (RAS)
Physiological theory (Papez and Maclean, 1937)

- This theory tries to explain emotions in terms of tracts and localization of function in certain brain structures. The localization was tried successfully for both emotional expression and experience.

- According to Papez the impulses that excite the emotional state may arise at two levels namely the hypothalamus and the visceral cortex, chiefly the hippocampus.
The hypothalamus when stimulated reacts automatically producing the automatic state accompanying emotions through hypothalamus stimulation of the sympathetic flow through a branch of the greater splenchnic nerve responsible for secretion of adrenaline from adrenal medulla (refer to the effects of emotions on soma).

The hypothalamus is stimulated by the neocortex and inhibited by the pyriform area, olfactory tubercle, amygdala and related structures of rhinecephalon.
The hippocampus (associative visceral cortex) stimulated by emotional stimuli of psychic origin with or without a causative perception initiates emotional reaction. It exerts its effect through the fornix on the hypothalamus (mamillary body) Through the mamilothalamic tract impulses reach the anterior thalamic nuclei which transfer in turn to the cingulate where emotional experience occurs.
The dense connections of prefrontal lobule (areas 9,10,11,12) with the dorsal medial nucleus of thalamus indicate that one of the functions of prefrontal lobule may be the regulation of the autonomic reactions connected with the emotional states.
Emotional changes after prefrontal lecuotormy consisted of diminution of inhibition and a tendency to euphoria and less commonly to depression.

It was also observed that ablation of temporal association areas results in disturbances in the motor emotional behaviour.
The Limbic System (coined by Paul Broca: Le Grande Lobe Limbique)

1. Hippocampus
2. Nucleus Accumbens
3. Mamillary Bodies
4. Hypothalamus
5. Prefrontal Cortex
6. Cingulate Cortex
7. Amygdala
Limbic System
The Papez Circuit (1937)

Frontal Cortex → Cingulate Cortex

Cingulate Cortex → Hippocampus

Hippocampus → Amygdala

Amygdala → Hypothalamus

Hypothalamus → Thalamus

Thalamus → Frontal Cortex

Direction of information flow:

Expression of emotion
• Hippocampus – determines the emotional relevance of incoming stimuli from the frontal cortex and the cingulate cortex
  - involved in Declarative Memory (cold hard facts) taken in from cortical are sensory 2/3 areas hippocampus (LTP)

• Amygdala – responsible for elaborating on the emotional response and directing the hypothalamus to respond, BUT it also plays another important role.
Precognitive Circuit (LaDoux’s elaboration of the Papez Circuit)

- Frontal Cortex
- Cingulate Cortex
- Thalamus
- Hypothalamus
- Hippocampus
- Amygdala

Information flow:
- Frontal Cortex to Cingulate Cortex
- Cingulate Cortex to Thalamus
- Thalamus to Hypothalamus
- Hypothalamus to Hippocampus
- Hippocampus to Amygdala

Expression of emotion flow:
- Amygdala to Hypothalamus
- Hypothalamus to Thalamus
- Thalamus to Cingulate Cortex
- Cingulate Cortex to Frontal Cortex
- Frontal Cortex to expression of emotion
DISORDERS OF EMOTIONS
A) Changes in quality may be

1. Incongruity: in which the emotional expression does not conform with the thought process.
2. Lability: in which emotions change from one extreme to the other with no obvious reason.
3. Ambivalence: in which contradictory feelings towards the same object or person exist.
B) Changes in quantity may be

1. Apathy : In which the emotional expression and

2. experience are abolished

3. Indifference : In which emotional expression is abolished while the emotional experience is still preserved.
4. Depression: A sense of sadness where its amount exceeds markedly the apparent cause.
5. Elation: Undue happiness.
6. Morbid Anxiety: Defined as heightened inner tension accompanied by uneasiness.
7. Aggression: it is a condition of forceful attaching action, usually directed towards another and associated with hostility and hatred.
TERMS OFTEN CONFUSED

• **Affect**: Strong temporary and variations expressions of the emotional feeling tone of the individual.

• **Emotion**: Are stirred up states of feeling & describe usually the physiological concomitants of the affective expressions.

• **Mood**: Is an affective state of considerable duration.

• **Feeling**: Is positive or negative reactions to some experience.