

The study of emotion essay



The study of emotion has seen many contesting theories which attempt to explain the processes which the human body or in some cases the animal body, utilize when experiencing emotion. Perhaps one reason for so many different theories is the lack of definitions used to identify what emotion is. “ Historically this term has proven utterly refractory to definitional efforts; probably no other term in psychology shares its nondefinability with its frequency of use.

” (Reber 1987 p234) What Reber means by this is that most authors whom frequently use the word make little attempt to define its meaning. Instead they present theirs or others evidence or theories and hope that a definition will be apparent from the text. If psychology claims to be scientific, then to compare and contrast theories we must first ensure the opposing theories are pertinent to an identical subject. For this reason a clear definition of emotion is a fundamental requirement. The word emotion is derived from the Latin *emovere* which translates as to excite, to agitate, to stir-up or to move. A combination of events, cognitions, and physiology.

Or similar sentences are frequently used to define emotion when associated with human behaviour. However, these conditions may be present in an emotional state but do not necessarily produce an emotional state. All three conditions are present when I need to urinate, generally I do not feel emotional about this unless I am in a situation that does not allow me to urinate. James (1884) took 8, 499 words when writing “ What is an Emotion? “, rather than adopt James’ definition; we will define emotion as, Feelings we experience following an event that generally, have both physiological and cognitive elements, which influence our behaviour. The reason for this

definition is that most theories and psychologists accept that emotion involves four factors.

These are instigating stimulus (event), Physiological change, Cognitive appraisal and Behavioural change. The order and reasons for these factors are however contested within different theories. The Physiology of Emotion is centered round the Autonomic Nervous System (ANS) which consists of two parts. These include the Parasympathetic division, which is actively involved in maintaining a relaxed, calm, unemotional state (homeostasis), and the Sympathetic division which acts in numerous ways and results in many physiological changes to get the body in a state of readiness for action, some of these changes include; The pupils of eyes to dilate, an increase in heart rate and blood pressure, blood may be diverted away from digestive tract toward limbs and brain, respiration increases, perspiration can occur, blood sugar levels may increase, loss of bladder and bowel control may be experienced and blood may clot more readily than usual. The autonomic nervous system involves nerves and nerve centers which act rapidly to affect some of the bodies' internal organs. The Limbic System is most commonly thought to be the area of the brain involved in emotional responses.

The limbic structure was first " identified" by J. W. Papez in 1937. He proposed that the hypothalamus and several other subcortical structures were connected together forming a " circuit" responsible for the control of emotions.

Papez's theory was later revised by P. MacLean (1973) his research was based on results of brain damage to these structures and named them the '

Limbic System'. MacLean observed that people with temporal lobe epilepsy or damage to this region can experience aggressive impulses, fear, feelings of dissociation similar to multiple personality disorder (now known as dissociative identity disorder), irrepressible laughter, states of existential bliss, and sexual arousal. MacLean distinguished three limbic circuits based on function; the emotions related to self-preservation were centered on the amygdala and hippocampus, emotions related to pleasure on the cingulate gyrus and septum, and emotions related to social cooperation were in parts of the hypothalamus and anterior thalamus. One of the earliest theories of emotion is an amalgamation of the works of Carl G.

Lange (1885) and William James (1884). They independently of each other came to similar conclusions concerning emotion. The combined theory is known as the James - Lange theory. It suggests that emotions are a consequence of our physiological responses to external stimuli followed by identification of the emotion by examining the physical responses. In simplified terms it means that the bodies' reaction following an event precedes the knowledge of the feeling we are experiencing. For example, we see a bear in the woods (event/stimulus), we start to tremble (physiological change).

We then examine this physiological response (trembling) and identify the emotion we are experiencing based on this and deduce we are afraid (the emotion). Therefore, we are afraid because we are trembling rather than trembling because we are afraid. In 1929, Walter Cannon refuted the James-Lange theory and proposed his own that was soon modified by Phillip Bard and became known as the Cannon-Bard theory (1931). This states that,

when a person faces an event that somehow affects him or her, the nervous impulse travels straight to the thalamus where the message divides. One part excites the cerebral cortex to initiate subjective experiences such as fear, rage, sadness, joy, etc. The other part goes to the hypothalamus to induce physiological changes, such as sweating, heart rate increase etc.

According to this theory physiological reactions and emotional experience occur simultaneously. If we adopt the example of the bear in the woods, then seeing the bear will simultaneously cause us to tremble and register fear. Papez and McLean later identified that the Limbic System as a whole was responsible rather than just the cortex, thalamus and hypothalamus. Neither of these two theories takes account of the cognitive processes associated with humans.

Schachter and Singer (1962) agreed with James and Lange in that they state that experience of emotions arises from the cognitive labelling of physiological responses to stimuli. However, they believed that this is not enough to explain the more subtle differences in how one perceives different emotions. They proposed that an individual will gain information from the current situation and use it to label the sensation. If yet again we use the example of the bear, the fact that we are trembling for Schachter and Singer, will not necessarily cause us to register fear as the emotion. We will first have to examine our situation and surroundings. We may be lying in a hide and have been waiting days for such an animal to appear in our gun sights thus the emotion may be excitement or anticipation.

It may be a blizzard and 40 below freezing and the bear is of no consequence as it is the other side of a high fence, the trembling is due to the cold. They gathered evidence for their theory from what many feel an unethical experiment. Other problems we encounter when attempting to analyse emotion result in a return to the nature/nurture debate. Are our emotions learned or are they inherent? Why do individuals experience different emotions for identical situations? Darwin suggested that emotional expressions in humans are reflected in that of animals. This is further evidenced when universally identical facial expressions accompany certain emotions even in blind people who could never possibly have learned to adopt such characteristics.

This leads us to a relative modern thesis, The Facial-Feedback Theory. In the theories suggested so far none have considered the role that facial expressions might play in determining emotion. Even William James who said that arousal is the sole determinant of emotions didn't consider the facial expression as part of that arousal. The facial feedback theory addresses the role of facial expressions and researchers have found that emotional states can be determined by facial expressions. Strack, Martin, and Stepper (1988) carried out a study to see if facial expressions affect people's happiness.

Unknowingly participants adopted different facial expressions by methods such as holding a pen in their teeth, while in this posture the researchers calculated the participant's moods. Strack et-al concluded that just by manipulating facial muscles the participants' mood was effected. Facial movement that simulated a smile resulted in increased happiness ratings. Larsen, Kasimatis and Frey (1992) conducted a similar experiment to that of

Strack et-al, this time however they concerned themselves with the emotion of sadness.

Similarly they found that by inducing a frown on the participants facial muscles increased the emotion of sadness. Zajonc, Murphy, and Inglehart (1989) investigated the physiology of facial expression and emotion. They found that the temperature of the brain is affected by different facial expressions. Blood enters the brain by way of the carotid artery. Just before this artery enters the brain it passes through the cavernous sinus. The cavernous sinus contains numerous veins that come from the face and nasal areas and are cooled in the course of normal breathing.

In some emotional expressions, the muscles of the face press against facial veins that empty into the cavernous sinus and the breathing pattern is altered. Constriction of the facial muscles such as when frowning, causes a reduction in air flow and therefore a less cooling effect on the blood entering the brain. Smiling causes a widening of the face and nasal passages this therefore has a greater cooling effect on the brain. Having looked at various models and theories of emotion an evaluation of these must now be sought.

Cannon criticised the James Lange theory by noting that the feedback from the physiology to the brain was too slow and not sensitive enough. However this was back in the 1920's and science can now prove almost instantaneous nervous impulses, so time and technology could actually advance the James Lange theory. If we however consider people who have severed spinal cords and therefore should physically be unable to receive impulses from their senses. How can these people still experience emotions? It could be that the

Cannon Bard theory answers this if the physiology occurs simultaneous to the mental process and does not require feed back from the senses.

Or the work of Zajonc et-al could interpret the physiology of the brain temperature thus negating feedback from other areas of the body. There is also evidence that following spinal injury the emotions are less extreme. This could suggest that the more sensory information available the greater awareness the individual will have of their emotions. It should be noted however that a cognitive process must be induced for interpretation irrespective of which theory is adopted, for evidence of this Schachter and Singers' study even if unethical does suggest a link between our interpretation of surroundings and events to the emotions which are displayed. On consideration it is likely that all the above theories have in their own way advanced our understanding of emotion.

No single one can be identified as offering definitive proof. If however they are all amalgamated, they appear to jointly offer the conclusion that emotion does indeed involve a stimulus followed by both mental and physiological processes, the order that we experience these could well be a chicken and the egg scenario, an emotion is not a single statutory instant, they are constantly in motion, continuous processes and evaluations that whether for survival or pursuit of self actualisation provide us with an element of motivation.