

# The Reflex-Cognitive Hypothesis of Emotion

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**Abstract:-** The Reflex-Cognitive Hypothesis (RCH) states that certain emotions are initiated via reflex action, but triggered by the cognitive system. It believes that involuntary actions are sometimes the roots of our experiencing emotion. The Reflex-Cognitive Hypothesis X-rayed the potentiality of reflex in our daily emotional experience. It posits that a good number of emotional experiences are embedded in our involuntary actions. The Reflex-Cognitive Model postulates that stimulus leads to reflex and reflex activates the cognitive system which in turn triggers emotion. RCH presents seven principles to explain this route of emotional experience and it is believed to be the bridge among the physiological, neurological and cognitive theories of emotion.

**Key words:** Emotion, Hypothesis, Reflex, Cognitive System, Sensory Impulses

## I. PRELIMINARY

Emotion is critical to human existence as well as other organisms. It is part of our everyday life and forms part of our being alive (Cordaro, 2016; Keltner, 2019). Many classical theories have tried to explain emotion via different means, mechanisms and models, but they have not exhaustively dealt with its explanation (McCarty, 2007). In the language of Atkinson et al (1983), emotion as a construct is one of the unresolved matters in Psychology. Emotion is a psychological state associated with nervous system as well as chemical exchanges affecting thoughts, feelings and behaviour. But the truth remains that not all emotional reactions affects thoughts prior to their onset or experience (Dalgleish, 2004). As a result, that definition above can be seen as a blanket definition (because, not all emotions affect the thought process at the initiation stage, though, there are others that do) (Maslach, 1979). According to James-Lang theory of emotion, we experience emotion due to our physiological reactions to emotion provoking events (Lang, 1994; Friedman, 2010).

To Canon-Bard Theory of emotion, we feel emotion and physiological reactions simultaneously in the presence of emotion provoking stimulus (Cannon, 1927). For Schachter-Singer Theory of emotion, we experience emotion as a result of physiological arousal which is usually followed by reasoning and the outcome of the reasoning produces emotion (Schachter & Singer, 1962; Cotton, 1981; LeDoux, 1995; Pruett, 2011). With respect to Lazarus Theory (Cognitive Appraisal Theory) of emotion, our thinking precedes our

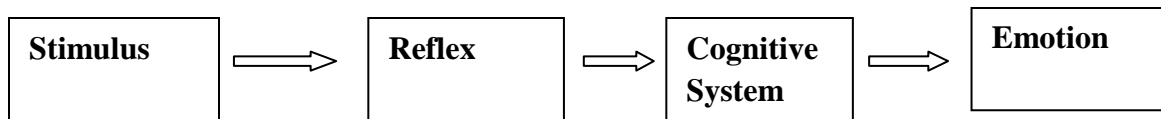
experience of emotion in the presence of emotion stimulating variable, event or situation (Smith & Lazarus, 1990; Lazarus, 1991; Smith & Kirby, 2009) and to Facial-Feedback Theory; our experience of emotion is connected to our facial expression.

## II. THE REFLEX-COGNITIVE HYPOTHESIS

A variety of what we do is done with our thinking or the engagement of our cognitive system. But when we handle a hot pot and drop it, it is called a reflex action; an involuntary action that we carry out via the mediation of the spinal cord at the input of the sensory system conducted by the sensory neurons without any cognitive input and the same thing happens as we step on a needle. Pain is a sensational reaction that initiates an emotion or emotional experience. Certain pain sensations are the byproducts of reflex actions as they occur in our daily lives and as exemplified above. There is need to understand the indispensable roles of reflex in area of emotion as this has not properly been explored, whereas, a great deal of our emotionality is sharply connected to the involuntary part of human behaviour. Indeed, there is need to see emotion from the point of view of human reflex as it is connected to emotion via pain sensation.

Sensory impulses mediated at the spinal cord makes us to experience or sense pain, the pain sensation creates an emotional sensation/state, and the outcome becomes emotional response/reaction such as anger via the cognitive system. Emma stepped on a needle, and quickly removed his foot (reflex), he thought of who must have dropped/kept the needle at the wrong place (cognitive system); anger sets in (emotion). Isabella touched/ carried a hot pot and dropped it immediately (reflex), she thought she could have used a piece of cloth to bring down the pot from the stove (cognitive system) and became angry with herself (emotion). In both examples above, the emotion of anger started from the stimulus, then, to reflex which progressed to cognitive system before emotional experience. The above occurred in quadruple state or pattern; the reflex hypothesis operates in ascending order from stimulus (lower order) to emotion (higher order), because, the stimulus initiates reflex which usually activates the cognitive system and in turn triggers the emotional experience.

## III. THE REFLEX-COGNITIVE MODEL OF EMOTION



From *The Reflex-Cognitive Model of Emotion* above, the Central Nervous System comprising the brain and the spinal cord play great roles in initiating, mediating and triggering emotion.

#### IV. THE PRINCIPLES REFLEX-COGNITIVE HYPOTHESIS OF EMOTION

Below are the principles of the Reflex-Cognitive Hypothesis;

1. Certain emotions we experience are not cognitively initiated. This posits that certain emotional experiences are initiated by reflex via sensory inputs/impulses.
2. Not all emotions are conducted from the sympathetic nervous system. This means that reflex which occur at the spinal cord is the component of the central nervous system (CNS) as against the sympathetic nervous system which is a component of the peripheral nervous system (PNS).
3. Emotion and physiological reactions do not always occur simultaneously. This states that reflex (physiological reaction) occur first before the cognitive system is activated leading to emotion.
4. Certain emotions are initiated from the sensory impulses/inputs. This posits that emotions can be initiated without the primary roles of the sympathetic nervous system and the brain.
5. Certain emotions are dependent on the principle of All-or-None Principle. This means that action potential via all-or-none principle must be activated at the somatic level (lower order) before emotion (higher order) can be triggered.
6. Certain emotions do not depend on the physical trigger. This means that emotion does always depend on visual cues or stimuli.
7. Certain emotions are the byproducts of reflexes. The spinal cord plays a very crucial role in our experience of emotion.

#### V. CONCLUSIVE WORDS

*The Reflex-Cognitive Hypothesis* is the bridge connecting the physiological, neurological and cognitive theories of emotion; because, every reflex is a combination of physiological and behavioural reactions with cognitive system which finally triggers the emotional state. It is important to note that the reflex trajectory always results in emotion. This is the aspect of emotion this hypothesis is out to explain. Though, all emotions are not explained through the reflex route, but a good number of them can be assessed, appreciated and understood through the reflex-cognitive model.

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