

Stress and the fight or flight mechanism



Stress is the state that results when the transactions between an individual and the environment lead the individual to perceive a discrepancy, whether actual or not, between the demands of a situation and the resources of the person's biological, psychological, or social systems (Lazarus and Folkman, 1984). Theories that focus on the specific relationship between stressors (external demands) and stress (bodily processes) can be grouped in two different categories: approaches to 'systemic stress' based in physiology and psychobiology and approaches to 'psychological stress' developed within the field of cognitive psychology (Nairne, 2009). This essay will be discussing three theories of stress with subsequent recommendations for the management of stress.

Initial models of stress concentrated on physiological processes and evolutionary considerations, biological aspects, and can be grouped as biological or systemic stress theories or models. The phrase "fight or flight" (Cannon, 1914) was an early example of the attempt to describe the physiological changes that a threatened organism undergoes. These physiological changes are highly adaptive as those organisms that utilize them have an increased likelihood of survival than those that don't. Early Humans may have benefited from the fight or flight response as it allowed our ancestors to manage dangerous situations (Narine 2009). However, while a certain amount of stress may encourage survival; persistent stress can adversely affect health (Bernard & Krupat, 1994).

Modern humans typically do not experience the same life and death situations of our ancestors, yet the innate nature of biological responses, indicative of the fight or flight mechanism, continue to occur (Simeons,

1961). According to Simeons (1961), whilst stress may have driven evolutionary change, where the species that have adapted best to the causes of stress, stressors, have survived and evolved, evolutionary speaking, the human brain has failed to adapt to the stressors of modern living (e. g., threats to self-esteem) and modern stress is the result of all this energy having no outlet. The fight or flight response (Selye, 1976), however, was only the first in a series of neurological and physiological reactions to stress (Bernard & Krupat, 1994; Nairne, 2009).

Two mechanisms work in tandem to activate the fight or flight response, the fast acting nervous system and the longer lasting endocrine system (Nairne, 2009). The sympathetic nervous system reacts to perceived danger, activating the fight or flight response, whilst simultaneously, the endocrine system releases ‘ stress’ hormones until the parasympathetic nervous system engages to relax the physiological systems post threat (Nairne, 2009). In modern living, however, the parasympathetic nervous system does not get activated (Simeons, 1961) and the hormones remain in the system, compelling the body to work harder than it needs to and eventually leading to stress related illness (Nairne, 2009). This stereotypical response pattern was identified by Selye (1946) and labelled General Adaptation Syndrome (GAS).

An individual exposed to prolonged stress progresses through a set of responses, or three phases: alarm reaction, resistance, and exhaustion (Nairne, 2009). According to Selye (1946, 1976), regardless of the stimulus event, common effects are produced. The fundamental notion of a nonspecific causation of the GAS has been criticised, however, finding that <https://assignbuster.com/stress-and-the-fight-or-flight-mechanism/>

the hormonal GAS responses followed specific affective impact of the stimulus event rather than the stimulus as such (Mason 1971, 1975). Furthermore, Lazarus (2006) reports that, in relation to corticosteroid response, the GAS may actually be a product of psychological, rather than physical, threat. Systemic stress theories have also attempted to quantify causes of stress.

Holmes and Rahe's (1967) model, a derivative of the systemic approach to stress and an attempt to quantify the cause of stress by what happens to the individual, is based on Selye's work, suggested that it is the variations in life routines, positive or negative critical life events, rather than the threat or meaning of critical events, that is involved in causing stress. Research, however, suggests that it negative events, rather than positive, that is associated with physiological and psychological consequences of stress (Anderson, Wethington & Kamarck, 2011). There is also a failure to acknowledge personality factors (Kobasa, 1982) or the duration of exposure to a stressor (Cooper & Dewem, 2004).

The focus on the biology of stress led early theorists to a simple model: stress is caused by what happens to you. Biological, or systemic stress theories or models such as Selye's (1946), suggest a reductionist view, as they focus on the physiological, stereotypical response pattern, and do not account for mechanisms that may clarify the cognitive changes that occur, or the coping mechanisms that mediate the results of stress (Lazarus & Folkman, 1986). Biological models of stress inform what happens to an individual who is stressed but not the aetiology of that stress. Lazarus (1966) proposed a model of stress that highlights the transactional nature of stress.

A transactional theory of stress proposes an interaction between the environmental and personal components, a transaction, involving the individual's cognitive processes (Lazarus, 1984). The perception of stress depends on the existence of a stressor/s in conjunction with how the stressor is evaluated and what coping mechanisms exist to manage it (Lazarus, 1980); the manifestation of stress is unique to the individual. Lazarus (1980) places the emphasis on the meaning that a stressor has for an individual and not on the physiological responses; psychological stress. Psychological stress concerns the relationship to the environment that the individual appraises as a significant subjective threat and in which subsequent demands challenge or surpass available coping resources (Lazarus & Folkman, 1986).

Objectively, stress may be a neutral, negative, or positive experience, but from an individual's perspective stress is a subjective experience. This model moves away from defining stress as a specific kind of external stimulation or a specific pattern of physiological, behavioural, or subjective reactions. An individual's situational perspective defines whether a potential stressor is experienced as stressful or not, making stress the consequence of appraisal (Lazarus & Folkman, 1986). An individuals' evaluation of the meaning of what is happening, appraisal, and the subsequent cognitive and behavioural attempt to manage the specific demands, coping, are both concepts that are fundamental to this transactional stress theory (Lazarus, 1993).

Appraisal is based on the idea that stress is dependent on an individual's beliefs or expectations in relation to the meaning and outcome of a stressor (Lazarus, 1991, 1993) and underscores the unique variance observed in relation to the quality, intensity, and duration of stress in the context of an

objectively equal stressor (Lazarus, 1993). Personal and situational factors contribute to appraisals (Lazarus, 1991). Two forms of appraisal are significant, primary and secondary appraisal. Primary appraisal concerns whether something significant to the individual's well-being occurred, whereas secondary appraisal concerns coping options (Lazarus, 2006). Different varieties of stress reflect underlying specific patterns of primary and secondary appraisal; harm, threat, and challenge (Lazarus & Folkman, 1986).

Coping may be conceived as cognitive and behavioural attempts to control, endure, or lessen external and internal demands associated with a stressor (Folkman & Lazarus, 1980). Thus, coping actions refer to certain characteristics of the coping process that can be both behavioural and cognitive; creating a coping episode that is comprised of different single acts, and interconnects with other coping episodes, that emphasize different parts of the stressor (Lazarus & Folkman, 1984). As a consequence, coping can be problem focused, change the situational factors, or affect focused, change the affective state or the appraisal of the stressor (Lazarus & Folkman, 1986).

As with biological model attempts to quantify stress, the transactional model is not without problems. In regards to appraisal, Lazarus' (1966) model has a somewhat mechanistic view of stress, a sharp and fixed switch between affect, and does not account for affective experiences in which a person vacillates between one or more positive and negative affective states (Sullivan & Strongman, 2003) or 'irrational' affective states in which an individual cannot articulate why they feel a particular way (Barlow, 2002).

Also, as cognition is hypothesized to precede affect, and the presence of cognitive processes cannot always be recognized, according to the theory it must have nevertheless taken place, a circular line of reasoning (Zajonc, 1984) although (Reisenzein & Schönplüg, 1992) suggest this is a misinterpretation.

In regards to coping, the coping strategy chosen by an individual does not predict the outcome or the subsequent affective state and, therefore, does not predict health effects (Ursin & Eriksen (2004). Furthermore, qualitative data indicate that the efficacy of coping behaviours and the adequacy of external resources are repeatedly ignored in quantitative measures of coping (Oakland & Ostell, 1996). Whilst individual coping strategies are frequently distinctive, coping strategies and dispositions are essentially learned from the social environment; individuals' coping behaviours are predominantly social in nature (Pearlin, 1982). A transactional model of stress informs an intrapsychic aetiology of stress but not the interpsychic, sociocultural, aetiology of stress. interpsychic, sociocultural, aetiology of stress.