



Stress Revisited: Personality, Psychoticism, and the Internal Generation of Stress

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INTRODUCTION

Stress is usually treated as a response to external pressure, but this paper argues that stress can also be generated internally through personality-linked patterns of perception, choice, and behaviour. The concept originally came from the physical world of materials, where Hooke's seventeenth-century work on load, stress, and strain informed structural design. In twentieth-century psychology, that mechanical model became a powerful metaphor for understanding how people respond to pressure.

After the Second World War, stress was closely associated with shell shock and battle fatigue (Grinker & Spiegel, 1945), as well as with the practical need to identify recruits who were more resistant to breakdown. Selye's later work framed stress primarily as the body's physiological response to external stressors, reinforcing the idea of stress as a load placed on a biopsychosocial system. Thomson's work extended that model by asking whether stress may also arise from internal characteristics, including personality traits that influence perception, coping, and behaviour.

HISTORICAL AND BIOLOGICAL MODELS OF STRESS

A biological understanding of stress developed alongside work on emotion, immunity, and disease. Solomon (1964) investigated neuro-immune interaction and proposed that the brain and immune system form an integrated system of defence. Immune alterations were reported in psychotic individuals, including lower numbers of lymphocytes and poorer antibody response to pertussis vaccination when compared with non-psychiatric control subjects. Ader and Cohen (1975) later demonstrated classical conditioning of immune function and helped advance psychoneuroimmunology. Their work identified neural pathways to blood vessels and immune cells, including nerves in the thymus and spleen terminating near clusters of lymphocytes, macrophages, and mast cells. At the same time, Hans Selye's work in Montreal further developed a collaborative understanding of stress as a whole-body response.

Selye developed the theory of the general adaptation syndrome (GAS). In *Stress without Distress*, he described how stressors manifest in the body over time through three stages: alarm reaction, resistance, and exhaustion. He also described the hypothalamic-pituitary-adrenal axis (HPA axis), which prepares the body to cope with stress. In addition, he explored a local adaptation syndrome involving inflammation and repair at the site of tissue injury, such as contact dermatitis, which may progress to GAS if the injury is sufficiently severe.

- Stage 1: Alarm. The body encounters a stressor, activates the sympathetic nervous system, and mobilises resources through hormones such as cortisol and adrenaline.

- Stage 2: Resistance. The body attempts to maintain adaptation while stress hormones remain elevated. Although outward appearance may seem normal, heart rate, blood pressure, and breathing may remain increased.
- Stage 3: Exhaustion. If the stressor continues beyond the body's capacity to cope, resources become depleted and the organism becomes more susceptible to disease and death (Selye, 1974, p. 39).

PSYCHOTICISM AS A PERSONALITY TRAIT

Like stress, psychoticism was still a comparatively new construct in the late 1970s. Eysenck and Eysenck (1975) described the nature of the 'P' variable in their personality scale cautiously, suggesting that it could only be inferred from observed patterns of behaviour.

They described a high scorer as solitary, troublesome, insensitive, hostile, aggressive, attracted to unusual things, and comparatively unconcerned with danger (Eysenck & Eysenck, 1975, p. 11). In 1979, therefore, stress and psychoticism were unlikely bedfellows: one was largely understood as a response to external pressure, while the other described a personality-linked pattern of individual differences.

This distinction made the later association between stress and psychoticism especially important. Stress was commonly understood through Selye's model of stressors and physiological response, whereas psychoticism referred to a characteristic behavioural pattern. Later work suggested that high psychoticism could be adaptive in some contexts, including situations requiring courage or disregard for danger, but less suited to settings that demand high sociability, conformity, or empathic engagement.

PUBLICATION 1: STRESS AND PSYCHOTICISM (EVANS, 1981)

When the first paper on stress and psychoticism was published, its central contribution was novel: it linked stress with a personality trait and proposed that stress may be initiated internally as well as imposed externally. This was important because earlier models, including those associated with Lazarus and Antonovsky, had focused more heavily on external demands, appraisal, or resistance resources. By introducing individual differences into the causal discussion, the work suggested that personality may shape both how stressors are perceived and how people respond to them.

The data showed a significant correlation between high stress scores and high psychoticism scores, but correlation alone could not establish causation. Clinically, however, the pattern was notable: unpublished dissertation findings suggested that patients who scored highly on both measures did not benefit from the psychiatric day unit and, in some cases, appeared to deteriorate. This raised a practical question about which patients failed to adjust following treatment and whether they shared identifiable personality-linked characteristics.

One possible explanation was that patients with high psychoticism scores, described as more tough-minded and less responsive to conventional interpersonal pressure, may have been poorly matched to a treatment setting that relied heavily on group conformity and empathic engagement. In that context, the day unit may not have reduced stress; it may

have intensified the very interpersonal dynamics that contributed to the patient's difficulties. The finding therefore pointed less to a universal treatment failure than to the need for better alignment between personality profile and therapeutic method.

At that stage, it was not clear whether stress and psychoticism were genuinely related or whether the association was a chance finding. If accepted, however, the results raised an important clinical question: what form of treatment or management would be most appropriate for patients with this particular personality profile? The findings were counter-intuitive because the typical tough-minded high-P scorer appeared vulnerable to stress. Pre-admission results from the day unit showed a preponderance of relationship difficulties, including trouble with the law, neighbours, and spouses.

Although this publication was a landmark paper, it was unpopular because it challenged accepted theory and practice. The day unit in which the research had been conducted did not alter its treatment approach to take account of the newly identified personality factor. It was therefore necessary to move beyond this clinical sample. Encouragingly, however, the paper was received enthusiastically at an international conference on psychosomatic disorders in London.

PUBLICATION 2: PERSONALITY AND STRESS (EVANS, 1985)

The next step after Stress and Psychoticism (Evans, 1981) was to examine the relationship between personality and stress in a normal population. A regular, relatively homogeneous group was needed. Because of personal connections with flying, commercial pilots were selected: they undergo regular health screening, and occupational culture assumes that effective pilots are generally reliable and stable. This context informed the design of a questionnaire examining which conditions and procedures caused pilots stress before and during flight.

The study was conducted in a pilot screening clinic in London and involved commercial pilots working for various airlines. It confirmed the connection between personality and stress in a healthy control population, thereby extending the earlier clinical findings and strengthening the argument that personality may influence the experience and generation of stress.

CONCLUSION

Decades later, stress-management advice still tends to emphasise prevention, coping techniques, and the reduction of external pressures. While these approaches remain valuable, they can imply that stress is primarily something imposed on the individual. The research reviewed here challenges that assumption by showing that personality-linked patterns of perception, choice, and behaviour may also contribute to the generation and persistence of stress.

Taken together, the clinical and pilot studies support a broader model in which stress is shaped by the interaction between personality, agency, and environment. This does not mean blaming individuals for their stress; rather, it means recognising that some people may repeatedly encounter, interpret, or respond to situations in ways that intensify stress reactions. For high psychoticism scorers in particular, conventional social or therapeutic

settings may not reduce stress if those settings depend heavily on conformity, empathy, or group adjustment.

The central implication is that stress should not be understood solely as an external burden, nor managed only by reducing external demands. A more effective approach would assess the personality factors that influence how stress develops, persists, and is experienced, and would match interventions more carefully to the individual. In this sense, the original association between stress and psychoticism remains important: it reframes stress as both a response to circumstance and, in some cases, a process partly generated from within.

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