



Stress and Tension

Bulletin of the Tomkins Institute, Vol 1, 1994, p. 17-19

Donald L. Nathanson, MD

Executive Director, The Silvan S. Tomkins Institute

Clinical Professor of Psychiatry and Human Behavior, Jefferson Medical College

Until affect theory pointed the way to an integration of psychology and neurobiology, and script theory provided the links between normal and abnormal emotionality, it was reasonable for the psychotherapy establishment to use the term "stress" as a descriptor for the precipitant of a clinical syndrome. Long taken to represent a situation or event capable of inducing the cluster of responses that brings an individual into a therapeutic environment, it may perhaps be understood better as a relic of an earlier psychobiology.

The word appears everywhere in our field. Just as "depression" has become the nosologic wastebasket into which are thrown a medley of clinical syndromes characterized by the more-or-less steady experience of any negative affect or combination of negative affects, "stress" is an analogous container for a wide range of emotional discomforts that can be attributed to noxious experience. Take, for example the following definition quoted from DSM-IV: "The essential feature of an Adjustment Disorder is the development of clinically significant emotional or behavioral symptoms in response to an identifiable psychosocial stressor or stressors. The symptoms must develop within 3 months after the onset of the stressor(s). The clinical significance of the reaction is indicated either by marked distress that is in excess of what would be expected given the nature of the stressor, or by significant impairment in social or occupational (academic) functioning. By definition, an adjustment disorder must terminate within 6 months of the termination of the stressor (or its consequences). However, the symptoms may persist for a prolonged period (i.e., longer than 6 months) if they occur in response to a chronic stressor (e.g., a chronic, disabling general medical condition) or to a stressor that has enduring consequences (e.g., the financial and emotional difficulties resulting from a divorce). The stressor may be a single event (e.g., termination of a romantic relationship), or there may be multiple stressors (e.g., marked business difficulties and marital problems). Stressors may be recurrent (e.g., associated with seasonal business crises) or continuous (e.g., living in a crime-ridden neighborhood). Stressors may affect a single individual, an entire family, or a larger group or community (e.g., as in a natural disaster). Some stressors may accompany specific developmental events (e.g., going to school, leaving the parental home, getting married, becoming a parent, failing to attain occupational goals, retirement)."

As you know, the syndromes of pathological adjustment to such stressors include what are described as prolonged anxiety, depression, conduct disorder, and various admixtures of these response patterns. Other syndromes, like the Acute Stress Disorder and Posttraumatic Stress Disorder, involve emotional responses to what our manual describes as an "extremely traumatic event" that has occurred in the immediate or more distant past.

This current use of the term derives from the confluence of two streams, one etymologic and the other scientific. The Oxford English Dictionary notes that "stress" first appeared in English as a shortened form of "distress." (Our language has always had a tendency to drop short, weak opening syllables, as in Cockney and American slang; this process is known as aphesis.) In Middle English (1150-1500), *distresse* and *stresse* often appear as variant readings in the same document, where they referred to "the action or fact of straining or pressing tightly . . . pressure applied to produce action, constraint, compulsion." Later meanings included "The overpowering pressure of some adverse force, as anger, hunger, bad weather," and "The sore pressure or strain of adversity, trouble, hunger, sickness, pain, or sorrow; anguish or affliction affecting the body, spirit, or community." A French word of similar but not identical meaning seems to have been absorbed into this shortened form of distress; *estrece* was an Old French term for narrowness, straitness, and oppression adding another realm of imagery to the concept of stress.

So far, it would appear that the history of the word fits perfectly the sense to which Tomkins adapted it – a steady-state, higher-than-optimal level of stimulus density triggering a mechanism that produces an analogous but far more urgent biopsychosocial condition characterized by sobbing and other steady-state discomfort. What happened to shift this quite specific use of the word stress to indicate the far more general state of malaise referenced in DSM-IV? Tomkins comments that Freud was responsible for one part of the problem because he assumed that the birth cry was the prototype of anxiety: "By confusing distress and anxiety, the latter term was given an initial connotation which made anxiety equivalent to psychic suffering of all kinds. By a further extension, everything which caused suffering or frustration of any kind became a cause of anxiety. Therefore, it was a brief step to the general postulate that any kind of 'stress' or nonoptimal circumstance might produce 'anxiety' in children and later, via generalization, in adulthood. . . . The common denominator of these meanings is some kind of 'stress' which all animals will signal by some kind of 'avoidance' " (AIC III, p. 494).

Even to the lay mind, there is a great deal of difference between distress and fear, between the steady, red-faced sobbing of the former and the frozen gaze, cold sweat, and pounding pulse of the latter. Freud was after a grand unifying theory, and locked himself to the concept of libido as an energy source responsible for healthy sexual excitement when released properly but which, when blocked or frustrated, powered all forms of aberrant behavior and emotionality. Even though the classically trained psychoanalyst has by and large discarded libido theory as a serious explanation of emotionality, among psychoanalysts the general concept of "stress" or "anxiety" lingers to a greater degree than might be believed, simply because these are terms that unify rather than partition the negative affects. Freud blended the innate affects distress-anguish and fear-terror into a broader category of generalized negative affect, thereby conflating gradient and density triggers and thus obscuring the difference between them.

What Freud had joined together became more difficult to break asunder when Hans Selye began to study the effect on rats of relentless noxious stimulation. In a series of experiments beginning in the 1940s and described in powerfully written papers and books, Selye described stress as "the nonspecific response of the body to any demand." Nosologists are either lumpers or splitters, and Selye was a lumper par excellence when he asked us not only to place into one category everything that might affect the organism, but defined stress as whatever caused the "stress response." Right at the time when psychoanalytic language was being absorbed into the mainstream of North American culture, and Freud's sense of "anxiety" gaining acceptance as a descriptor of all emotional discomfort, Selye's demonstration of the endocrinologic effects of deadly stimulation now conflated into one word the entire

range of mild and dense triggers. Suddenly there was a reason to fear anything that might produce stress and anxiety.

Reviewing his life work near the end of his career, Selye stated that all stimuli "have one thing in common: they increase the demand for readjustment, for performance of adaptive functions which reestablish normalcy. This rise in requirements is independent of the specific activity that caused the increase. In that sense, the response is nonspecific. The nonspecific adaptive response of the body to any agent or situation is always the same, regardless of the particular stimulus; what varies is the degree of response, which in turn depends only on the intensity of the demand for adjustment. Thus, it is immaterial whether the stress-producing factor or stressor, as it is properly called is pleasant or unpleasant. A game of chess, a kiss, pneumonia, and a broken finger all produce the same systemic reaction, though their specific results may be quite different or even completely opposite." (Handbook on Stress and Anxiety: Contemporary Knowledge, Theory, and Treatment. Irwin L. Kutash, Louis B. Schlesinger, and Associates, Eds.; San Francisco: Jossey Bass, 1980, pp. 127-129.)

Selye spoke of a General Adaptation Syndrome (G.A.S.) with three stages: 1) an Alarm Reaction consisting of a Shock Phase in which "various signs of injury such as tachycardia, loss of muscle tone, decreased body temperature, and decreased blood pressure are typical symptoms." This shock phase may be followed by a Countershock Phase, a "rebound reaction . . . during which the adrenal cortex is enlarged and secretion of corticoid hormones is increased." 2) A Stage of Resistance in which the organism adapts fully to the stressor, the symptoms improve or disappear, and the organism is left vulnerable to further insult. 3) A Stage of Exhaustion, in which the body's resources, having been depleted by the above reaction phases, prove unable to withstand further stress. "If stress continues unabated, death ensues." Any student of the history of ideas will recognize the red thread running through these two conceptual frameworks, deriving as they do from quite different realms of observation. Both Freud and Selye believed that the organism is designed to remain at rest unless disturbed, at which time it must react in such a way that the disturbance is warded off or its effects minimized. In the post-Industrial Revolution system of thought from which both scientists emerged, the human is seen as a machine able to run smoothly unless stressed, at which time its energies must be diverted to defensive action. Despite the obvious and glaring flaws in Selye's argument (it is hard to imagine death as the expected result of stable and constant love), I suspect that his ideas were able to take hold easily in a world torn by global war ended recently by atomic weaponry that threatened the survival of all life forms. As far as I can tell from an examination of literally hundreds of articles and books on stress and stressors, the language of Freud and Selye remains dominant in our field.

In recent years the term "tension" has become a cognate for both stress and anxiety; patients are likely to attribute their symptoms to scripts such as "I've been under a lot of tension recently--really stressed out." The OED derives "tension" from the Latin verb *tendere*, "to stretch," as seen in such medical uses as bladder distension. Something is tensed when it is either stretched or strained, leading to the 18th century sense of "a straining, or strained condition, of the mind, feeling, or nerves" associated with "straining of the mental powers or faculties; severe or strenuous intellectual effort; intense application," and the 19th century sense of "nervous or emotional strain; intense suppressed excitement; a strained condition of feeling or mutual relations which is for the time outwardly calm, but is likely to result in a sudden collapse, or in an outburst of anger or violent action of some kind." Historically, a situation has always been described as "tense" when it involves steady-state, higher-than-optimal stimulation--a density rather than a gradient trigger for affect. Notice again how these older usages conform better to what we understand from affect theory rather than to the meanings toward which Freud and Selye wrenched them in order to fit their theoretical systems.

This difference between gradient and density triggers for affect is important. If you look at the derivation of the word "fear," you note roots that convey the sense of danger, ambush, or sudden calamity; "anxiety" derives from the root for choking. These are gradient triggers because something new is happening, and it is happening at a rate that is too much for the organism. Nothing new is involved in the steady stimulation that triggers distress or anger. Some "anxiety disorders" involve the biology and the psychology of the affect fear-terror (the sense of onrushing danger) while the sort of "constant anxiety" or "tension" physicians treat with benzodiazepines such as Xanax or low dose phenothiazines like Stelazine is more properly understood as distress-anguish. Syndromes involving fear require strategies for the assessment of danger, while syndromes involving distress demand search for and reduction of sources of chronic overload. Distinctions of this sort are essential to competent cognitive therapy, in which much precision is required in order to decrease the morbidity associated with whatever symptoms have brought someone into treatment.

This brings up an additional difference between the traditional language of our field and that of affect theory: It is unlikely that there would be any serious or life-threatening endocrinologic sequelae of affect that was permitted expression. A situation that triggers affect is not likely to become noxious as long as the affect can be expressed freely. It is only when conditions of nurturance preclude affective expression in the developing child, or sociopolitical forces suppress the cry of distress and the roar of rage that the response to stress becomes deadly in the medical sense. Tomkins suggested that "much of what is called 'stress' is indeed backed-up affect and that many of the (reported) endocrine changes . . . are the consequence of backed-up affect as of affect per se. It seems at the very least that substantial psychosomatic disease might be one of the prices of such systematic suppression and transformation of the affective responses" (AIC III p. 14.)

Go back to the paragraph quoted from DSM-IV in order to verify these assertions. For each of the "stressors" indicated in our manual, try to imagine which of the six negative affects might be involved. Check out whether your clinical skills are improved when you look for fear-terror, distress-anguish, anger-rage, dissmell, disgust, and shame-humiliation alone or in their various combinations. See if your understanding of the specific psychosocial and biological triggers postulated for each of these affects can lead to the development of treatment strategies more sophisticated than the search for methods of "stress reduction." Watch your patients perk up when you teach them how to partition their emotional discomfort into easily recognizable categories that permit highly specific systems of solace. And smile with contentment as the work of psychotherapy is made just a little bit easier by this new approach.