
POST-WORLD WAR II CONCEPTUAL DEVELOPMENTS

The postwar period, considered here as the end of World War II to the late 1960s,¹ saw a number of important developments. Initially many of the findings and observations made during World War II about the combat zone's power to generate psychological and psychophysiological consequences faded. Psychoanalytic thought and other depth psychological doctrines ascended. By the 1960s, however, these models began to shift toward a somewhat more biological doctrine as the first psychotropic medications became widely used. Some of the stigmatization of psychiatry and recourse to psychiatric treatment (in the military and society at large) may be due to the belief at the time that all the factors that contributed to psychologically related illnesses were the result of brain structure or brain chemistry. This is a proposition that might be interpreted by many as defining the afflicted individuals as physiologically weak or constitutionally disordered. Such an attribution would be seen as personally stigmatizing and demeaning by many people. If there is scientific truth to the proposition that symptomatic outcomes are not the simple result of constitutional differences but the result of complex and assaultive interactions between the environment and the individual, a better systematic foundation was needed to determine the biological effects of external events on the body to address the psychological consequences of combat. As the social and behavioral sciences began to integrate with medicine, appreciation grew regarding the complexities of patients, experiences, and presentation of illness. The simple disease-based medical model—look at the symptoms, seek the unique pathogen, treat with the appropriate medication—was demonstrated to be limited when multiple

¹I do not address the Korean War as a separate entity because, from the point of view of concepts utilized and applied in respect to the psychological consequences of combat and deployment, it was simply an extension of the thinking and practice that characterized World War II. Its major importance may lie in the fact that these concepts and the operational structure for handling and treating combat stress had been entirely forgotten when the war began. The tragic first months of the war saw the disruption and quasi-near destruction of the first force sent in—Task Force Smith—and a consequent outpouring of stress casualties. The Army wisely sent Albert J. Glass—the most aggressive military psychiatrist and systematizer of the previous war—to rectify the situation, which he did in short order.

causes were involved. Within military psychiatry, the concept of subpopulations of normal recruits without prior evidence of psychiatric dysfunction, whose members might be especially vulnerable to experiencing intense symptoms following exposure to major stressors, was discarded. Those who were to be selected out were the more overtly vulnerable.

One of the major scientific outcomes of this focus on the environment-individual interaction was the synthesis of the concept of stress as we have come to understand it today. This synthesis led to a break with the principles of psychoanalytically based psychosomatic medicine and psychogenic causality.² Psychogenic causality posited the origin of psychosomatic disorders primarily in psychological pathologies developed in early childhood intra-familial relationships. The symbolic importance of these relationships was associated with the symptoms generated or target organs affected. Throughout this period and for several decades afterward, such diseases as peptic ulcer, asthma, rheumatoid arthritis, colitis, dermatitis, hypertension, and hyperthyroidism were among those classified as psychosomatic. The major construct involved in this essentially Freudian vision of psychosomatic disorder was that of “specificity.” As Mora (1974, p. 52) put it, investigators perceived that there was

a definite correlation between each one of these conditions and a particular emotional conflict [for example, repressed hostility in hypertension]. . . . The presence of a particular preexisting organic vulnerability under conditions of stress has been assumed by practically everyone.

The widespread promulgation of the concept of specificity can be seen in the postwar editions of the *Cecil-Loeb Textbook of Medicine* (Beeson and McDermott, 1963), the most popular medical textbook in the United States. In Kolb’s chapter (1963, p. 1717) on psychoneuroses, he notes, for example, that ulcerative colitis (now known to be an autoimmune disease) is exacerbated by stress:

Such patients often have a strong need for protective care, this feeling arising from an early relationship with a dominating or rejecting and humiliating mother. The condition also develops in persons who were reared in families in which physical symptoms were a means of receiving preferential care.

We see equivalent specificity in his statements about the etiology of asthma, asthma attacks, and dermatological reactions.

Asthma has as a major component an excessive and unresolved dependency problem. Asthmatic attacks are frequently precipitated by sudden intense emo-

²See, for example, Dunbar, 1943; and Alexander, 1943. See also the excellent chapter by Reiser, 1975.

tional reactions developing from exposure to situations in which the sufferer is threatened, actually or symbolically, by separation from a mother figure.

The skin is an important area for the expression of psycho-physiologic disturbances, serving as a contact point between the individual and the world. Psychic factors lie behind many of the skin disorders of both children and adults. In adults, neurodermatic excoriations are associated with the repression of anger. Events leading to expression of guilt and depression generally cause the exacerbation of continuous eruption. Itching and scratching occur often during attempts to repress resentment for the maternal figure or substitutes with whom the patient has a hostile, dependent relationship. Urticarial lesions may also develop from life situations that induce resentment and frustration as a consequence of some threat to an important dependency relationship (Kolb, 1963, p. 1718).

THE DEVELOPMENT OF THE CONTEMPORARY CONCEPT OF STRESS

However, late in periods of wartime, it usually became obvious that, for the vast majority of soldiers suffering the effects of combat fatigue or of prolonged exposure to the stresses of the combat theater or deployment, the symptoms and ailments that brought them first into contact with military physicians and then into Veterans Administration facilities were not “all in the mind.” The observations made during the course of World War II, particularly in light of the “anti-predispositional” modes of thought adopted by leading military psychiatrists, presented a series of questions that deepened and broadened into a set of pathways for “stress” and its consequences. If psychosomatic illnesses were not the consequence of the transformation of present stresses into organs and organ systems that were preselected by early relationships—then what were they caused by? What were the mechanisms through which the brain, the central nervous system, and bodily physiology transformed external events into somatic illnesses? What were the interactions between bodily insults, emotional assaults, stresses, and the dynamics of human biology and psychology that could transform events such as minor ailments, exposure to prolonged stress, or combat trauma into long-term patterns of symptoms and/or dysfunction?

Building upon the experiences of troops in the war and the consequences of those events, investigators began to examine the relationship between stress and disease. They also analyzed both the protean and diverse nature of the stressors affecting people and the physiological and endocrinological dynamics of the human response to stress. Neurologist Harold Wolff (1953) created a wide-ranging, holistic, conceptual model grounded in the fundamentals of human evolutionary biology. As he put it:

Man is further vulnerable because he is so constituted that he reacts not only to the actual existence of danger, but to threats and symbols of danger experi-

enced in his past which call forth reactions little different from those to the assault itself. Since his adaptive and protective capacities are limited, a man's response to many sorts of noxious agents and threats may be similar, the form of the reaction to any one agent depending more on the individual's nature and past experience than upon the particular noxious agent evoking it. Moreover, because of its magnitude and duration, the adaptive-protective reaction may be far more damaging to the individual than the effects of the noxious agent *per se* (Wolff, 1953, p. 3; see also, Wolff, 1947).

Wolff (1953, p. 149) makes the following observations in his closing chapter that, I believe, still have great pertinence today:

Owing to training and cultural pressures, an individual develops a more or less fixed idea of how he is expected to appear, behave, react and even feel. A man's reactions to what he perceives as dangerous are often out of keeping with his conception of what he "ought" to do. The threat and the subsequent conflict, often not fully recognized, thus persist and unsuitable protective reaction patterns may be evoked unwittingly.

Such inadequate processes of defense and offense may lead to disastrous changes in function and structure. Furthermore, the continuing effort to achieve homeostasis through the use of unsuitable protective and adaptive patterns may lead to the destruction of the individual.

Wolff's work was paralleled by Selye's, which elaborated on stress concepts, the "nonspecificity" of the hormonal responses involved, and their overall consequences for the organism. Building upon Cannon's early work,³ these new insights developed into the realm of psychoendocrinology.

Building upon this older work, new directions and pathways were open and charted. Discarding Selye's "general adaptational syndrome," researchers such as Mason described the way environmental stresses influenced specific hormones and differentially affected the organism. A good overview is provided in Mason (1975). As he put it:

While much of medicine, with the ever increasing trend towards specialization, continues to pursue the course of viewing disease as a local or regional phenomenon, the opportunity is now open to pursue, at a new level of sophistication, *a view of many diseases as disorders of integration*. . . . The new knowledge that highly complicated psychological influences are superimposed upon the humoral machinery for endocrine regulation raises the possibility that disorders of bodily function may result when the more complex, and probably more fallible, psychological machinery, preempts, disrupts, or otherwise works at odds against the simpler, lower-level humoral machinery of endocrine regulation (Mason, 1975, pp. 575–576).

³And also on the salient work done by John Mason at the Walter Reed Army Institute of Research, from the early 1950s through the 1970s.

It is from this work that we might trace the evolution of the highly sophisticated neurobiology of today.

Two phenomena paralleled these developments concerning the concepts and consequences of stress within the scientific community. The first, and perhaps most salient, was the widespread diminishment within psychiatry of the construct of “present events” as a threat to the physical and mental health of the “normal” individual. Problems in the present were treated in terms of their roots in infancy and childhood and not in terms of contemporary events. The second phenomenon was a more subtle one: the rise of Skinner’s⁴ “operant” psychology. Operant ideas never achieved the widespread acceptance within medicine that psychoanalytic concepts did, nor did they become part of the common language of psychological belief. However, these ideas did have a powerful reinforcing effect on many of the constructs developed by military psychiatry during World War II. Skinner’s model dispensed with the idea that the constitution or structure of operations inside the brain and the central nervous system (CNS) were related to the consequences of exposure to events. The brain and the CNS were to be treated as undifferentiated parts of a “black box.” Response to events and sequelae were solely a product of the individual’s past history of reinforcement and his present experience of events and the reinforcers attendant upon them.

The Skinnerian model implied even more total plasticity of response than the concept that “every man has his breaking point.” Concepts of selection, save for those for officers and the most elite functions in the Army, were used judiciously. It was posited that soldiers who demonstrated flaws of behavior, performance, or character could be rehabilitated through the right kind of training and environmental manipulation. Attempts were even made to develop therapies that would reclaim diagnosed schizophrenics as productive soldiers (see, e.g., Artiss, 1959). In the period from the reinstatement of the draft (with the onset of the Korean War) through the early 1960s, this focus on purely extrinsic factors made a great deal of sense from a demographic viewpoint: The depression and the war years limited the pool of available manpower. Almost every “body” with the potential to serve was needed. Society could not afford the large number of those who would be turned away by any extensive selection system if the services were to be manned at the required levels.

⁴B. F. Skinner, professor of experimental psychology at Harvard and the father of “operant” conditioning in psychology.

OTHER THEORETICAL DEVELOPMENTS BEARING ON THE PSYCHOGENIC AND PSYCHOSOMATIC CONSEQUENCES OF “BEING ILL”

The period of the 1950s and 1960s saw a number of other theoretical and conceptual developments of contemporary importance. Labeling theory (i.e., the consequences of being assigned publicly and interactively to a diagnostic category) became a matter of concern and study in medical sociology. Secondary social consequences of illness symptoms also became a subject of intensive study. Going well beyond the psychoanalytic concept of secondary gain (e.g., What are the positive benefits of being sick?), Harvard sociologist Talcott Parsons, one of the founding theorists of medical sociology, began an in-depth study of the “sick role.” He pointed out that the symptoms of illness were one of the few totally legitimate ways in American culture through which an individual might licitly withdraw from contending with normal behavioral expectations. Parsons’ (1964, pp. 274–275) four characteristics of the sick role have enduring qualities in terms of the social dynamics of illness in American culture:

There are the following four more specific features of the *role* of the sick person: (1) This incapacity is interpreted as beyond his powers to overcome by the process of decision making alone; in this sense he cannot be “held responsible” for the incapacity. Some kind of “therapeutic” process, spontaneous or aided, is conceived to be necessary to recovery. (2) Incapacity defined as illness is interpreted as a legitimate basis for the exemption of the sick individual, to varying degrees, in varying ways and for varying periods according to the nature of the illness, from his normal role and task obligations. (3) To be ill is thus to be in a partially and conditionally *legitimated* state. The essential condition of its legitimization, however, is the recognition by the sick person that to be ill is inherently *undesirable*, that he therefore has an obligation to try to “get well” and to cooperate with others to this end. (4) . . . the sick person and those with responsibility for his welfare, above all, members of his family, have an obligation to seek competent help and to cooperate with competent agencies in their attempts to help him get well.

The 1950s and 1960s also saw a great expansion of epidemiological studies fusing psychiatry, medical sociology, and medical anthropology to look at cultural and subcultural issues in symptom presentation. Recalling the observations from World War I, in which British physicians saw two quite different patterns of symptom expression in enlisted men and officers, we might wonder why such investigations took so long to initiate in the United States. A small group from Yale carried out the seminal American epidemiological study. Their findings distantly paralleled those of British military physicians 40 years earlier. Dividing a New Haven population into five socioeconomic status (SES) levels, Hollingshead and Redlich (1958) made two primary epidemiological discoveries. First, individuals in upper SES groupings presented psychological symptoms in response to psychiatric and psychosocially based ailments, while those

in lower SES predominantly presented somatic symptoms. Second, given the same level of symptomatic disability, upper SES patients were directed to out-patient psychotherapy, while the others tended to be hospitalized.

Another thread that was conceived in the 1950s, but did not truly develop until the 1970s, was the prefiguring of a new kind of model of human physiology and neurophysiology at the Josiah Macy conferences in New York as well as at some of the Cold Spring Harbor symposia. At the Macy conferences, the fathers of information theory, Wiener, Shannon, and Weaver, proposed a model of human physiology and the brain, central nervous system, and endocrine systems as informational or cybernetic systems. They argued that emotional events were transformed by the brain and body into complex internal messages and feedback systems that altered the body's internal environment in ways that could eventually be characterized and understood.