

Huxley, George Hogarth, Charles Kingsley, Edwin Landseer, Charles Lyell, Florence Nightingale, Richard Owen, John Ruskin, and Queen Victoria herself. They enter Buckland's life briefly, or for extended periods, and contribute a nice sense of the state of science and civilization of that day.

For years Buckland contributed to and edited parts of *The Field*. He authored the popular series of books called *Curiosities of Natural History*, and later founded and wrote voluminously for the magazine *Land and Water*; he collaborated with Gilbert White and Lord Selborne on an 1875 edition of *The Natural History of Selborne*. Buckland became concerned about the dwindling supply of food for the growing British population, and became involved in work with fisheries. Presently he was operating a fish hatchery and a Museum of Economic Fish Culture at South Kensington. In 1867 he reached his zenith, with appointment as Inspector of Salmon Fisheries. His life, hitherto energetic, now proceeded at a feverish pace. Besides extensive fieldwork, he devoted much time to lecturing.

Buckland had a winning personality, and his friends and admirers were legion. He combined a peculiar assortment of contradictory traits, being known to some as kind, generous, considerate, and practical and to others as impetuous, tactless, egotistical, and uncritical. He was a keen observer, but in his lectures and writings "he tried too hard to amuse rather than instruct." Thus he failed to gain the reputation of a profound scientist. "Had he attempted less he might have achieved more." He still is remembered best as a popularizer of natural history, but he also made significant contributions to early marine and freshwater fishery research, he pioneered in fish hatchery techniques and in oyster culture, and he recognized the menace of water pollution a century ago. To the end he refused to accept, or even understand, Darwin's evolutionary theory. In his will Buckland endowed an annual lectureship on Economic Fish Culture. The lecturer in 1964 was G. H. O. Burgess, director of the Humber Laboratory for Fish Technology. The occasion stimulated him to gather and publish these colorful and entertaining memorabilia.

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## The Psychodynamics of Disease

**Psychosomatic Specificity.** Vol. 1, Experimental Study and Results. FRANZ ALEXANDER, THOMAS M. FRENCH, and GEORGE H. POLLOCK, Eds. University of Chicago Press, Chicago, 1968. ix + 263 pp., illus. \$7.50.

The theory of psychosomatic specificity, developed more than 30 years ago by the late Franz Alexander and his colleagues at the Chicago Institute for Psychoanalysis, was meant to explain the regularity with which the psychoanalytic treatment of patients with duodenal ulcer, rheumatoid arthritis, asthma, hypertension, thyrotoxicosis, neurodermatitis, and ulcerative colitis revealed specific psychodynamic patterns to be associated with each of these diseases. For example, a typical conflict about dependency needs was noted in duodenal ulcer patients, and problems associated with intense craving for physical closeness, combined with conflict about exhibitionistic tendencies, seemed to characterize neurodermatitis patients. Further, the psychological situation in which the patient found himself at the onset of his physical symptoms appeared to involve the activation of precisely these characteristic psychodynamic conflicts. The original investigators early recognized that the same psychodynamic patterns could be found among patients who did not have the somatic disturbance. Hence they postulated that an organic predisposing factor ("X factor") was necessary to the development of the disease. The specificity concept as formulated by Alexander is as follows:

A patient with vulnerability of a specific organ or somatic system and a characteristic psychodynamic constellation develops the corresponding disease when the turn of events in his life is suited to mobilize his earlier established central conflict and break down his primary defences against it. In other words, if the precipitating external situation never occurs, a patient may, in spite of the presence of the predisposing emotional patterns and of organ vulnerability, never develop the disease.

Alexander's specificity concept enjoyed wide popularity in the 1940's and early 1950's and indeed was the most influential theory in psychosomatic

medicine at the time. Many clinical case reports appeared to give support, though there was not always full agreement with the original psychodynamic formulations. But such retrospective studies could only elaborate, not validate, the theory. Application of projective and other psychological test procedures yielded conflicting findings, mainly because such approaches do not reveal how psychological attributes relate to the development of the somatic processes. Only the study of Weiner, Thaler, Reiser, and Mirsky in 1957 (*Psychosomatic Medicine* 19, 1) was adequately designed to test the validity of the theory. Using a high concentration of pepsinogen in the serum as an indicator of the somatic predisposition for duodenal ulcer, these investigators were able, in a double-blind study of a group of army inductees, to predict successfully that peptic ulcer would develop only in those with a high pepsinogen concentration, and the specific psychodynamic constellation, for whom basic training constituted a precipitating external situation. At the same time they verified that ulcers did not develop in men without the somatic predisposition (low in pepsinogen) or in men who had both the somatic and the psychological predisposition but in whom induction did not arouse the relevant conflict.

With such a paucity of adequate studies it is not surprising that the specificity theory gradually lost its appeal. Few such patients are now treated psychoanalytically; hence only a few analysts have continuing experience with or interest in the problem. Also, other workers less knowledgeable in the psychodynamic approach have tended to embrace less particularistic concepts.

The work reported in this book is a contribution to the methodology of clinical psychosomatic and psychoanalytic research as well as an attempt to test the specificity concept.

Alexander early appreciated that the investigator's prior knowledge of the disease diagnosis might bias his examination of the psychodynamic material, and he proposed testing whether the correct diagnosis of each of the seven

diseases could be made on the basis of the psychodynamic and psychogenetic patterns alone. While this would not prove that there was an etiologic link, it would at least show that the psychological patterns were indeed associated with the diseases in question.

It is difficult to exaggerate the methodological complexity of this study, and the authors discuss at length the measures that were adopted to deal with the problem of eliminating illegitimate diagnostic cues. Forty-one cases were processed in a two-year pilot study. Then 108 additional patients, each with one and only one of the seven diseases, were interviewed; 25 of these were subsequently rejected as not fulfilling the strict criteria; the remaining 46 men and 37 women, each sex including at least five cases of each of the seven diseases, were subjected to full evaluations. The entire study required over 14 years (1951–1965) and involved more than 20 medically trained psychoanalysts and 13 internists, and a statistician.

The basic procedure was as follows: The patient was interviewed in a standard way by a member of the psychoanalytic group, who after deleting medical cues from the transcription of the recorded interview submitted it to an internist—a “cue detection judge”—to screen out any remaining medical cues. Copies of the processed transcript were then distributed to each of the “predictive judges”—psychoanalysts and internists. (At any one time there was an average of eight analyst and ten internist predictive judges and three cue detection judges.) Each predictive judge prepared a written evaluation of the case, giving his diagnosis and his reasons for choosing it, the analysts spelling out the psychological data underlying their conclusions and indicating on a four-point scale the degree of their certainty about the case. Analysts and internists did not communicate about the research and each group remained ignorant of the other’s diagnostic judgments. After submitting their initial diagnoses, the psychoanalyst judges met for discussion of the case, and then each made a final diagnosis.

The internists’ reports served principally as a further check on the presence of medical cues in the processed interviews. Working from the same protocols, the analysts did appreciably better than the internists in arriving at correct diagnoses. For final diagnoses, the analysts were correct in 50 percent

of the cases, the internists in 25 percent. When one reads with care the sample interview and the diagnostic reasoning of the analysts and the internists reproduced in the appendix, it is obvious that they used very different mental operations in reaching their respective diagnoses. For example, analysts rarely made use of the occasional “medical” cue which had escaped editing, while the internists often did. But these average levels of success of the analysts hide a considerable degree of variation. For example, they initially correctly diagnosed 58 percent of the men with arthritis but only 16 percent of the women with ulcer. Nonetheless, by quite rigid statistical criteria the analysts, in all but the female ulcer cases, achieved significantly better than chance accuracy. The internists did better than chance only with male dermatitis and colitis cases and female thyrotoxicosis cases, and then at a considerably lower level of statistical significance. Also, individual analysts differed greatly in their success rates with different diseases; for example, with ulcerative colitis they ranged from 20 to 100 percent for women patients and from 0 to 50 percent for men patients. Detailed studies were made of errors in diagnoses, including their quantitative distribution, overuse or underuse of particular diagnoses, and personal characteristics of the judges. Similar care was directed toward evaluating the internists’ judgments.

Granted that the analyst judges enjoyed a creditable measure of diagnostic success, the question still remains whether the diagnosis could have resulted from illegitimate interviewer communication despite the precautions taken. This issue was examined through a further study in which other analysts reexamined the records for “interviewer cues”—that is, inadvertent behavior determined by an interviewer’s unconscious need to “send a message” to the analytic judges to help them reach a particular diagnosis, such as, for example, too emphatically exploring exhibitionism and masochistic fantasies in a case of neurodermatitis.

This proves to be the most difficult part of the research to interpret. The investigators conclude that the cues these later examiners perceived “seem to bear little or no consistent relationship to the patient’s actual disease and seem to have contributed little or nothing to the overall success of the analytic research group’s diagnostic activi-

ties.” Their uneasiness about their conclusion is revealed by the use of the word “seem.” In this reviewer’s judgment this issue was not—and cannot be—successfully resolved one way or the other, for unconscious communications cannot be eliminated and indeed are especially likely to remain undetected when the group shares a common motivation—in this case that the analytic judges succeed.

The authors are appropriately conservative in their conclusions. They claim success only in differentiating among the seven diseases on the basis of the psychological patterns associated with each. They do not consider such statistical evidence as demonstrating the correctness of the psychological formulations for the individual diseases, for which they insist a different approach is necessary. Indeed, they repeatedly indicate the need for revision of several of the formulations, and these will be considered in a subsequent volume. Nor do they present their results as “proof” of the specific theory. Clearly the results demonstrate only that a correlation exists between certain psychological data and certain disease entities.

While this may disappoint those who hoped for a more definitive result one way or the other, the work is important in showing that specificity is by no means a dead issue in the psychosomatic field. This will come as no surprise to those who have taken the time to study in depth the psychological characteristics of diverse populations of patients with organic diseases, for it is difficult to escape the impression that psychological characteristics and disease processes are by no means randomly distributed, though it is unclear whether such associations are with the disease per se or with particular organ systems (for example, whether with coronary disease or with the vascular system). And while the basis for or the meaning of such associations cannot be clarified by such retrospective studies as that represented in this book, it would be entirely unjustified to count the work a failure on this ground. On the contrary, it calls for revival of scientific interest in this problem and the development of different approaches for its elucidation.

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