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FUNCTIONAL MIMICRY OF ORGANIC DISEASE

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A physician who informs his functionally ill patients, after thorough physical and laboratory examinations have proved negative, that they are not sick at all and should therefore "go home and forget it," implies that the human organism is composed merely of a collection of organs. He overlooks the enduring component of a human being, the soul, of which the mind is the factor which distinguishes man from the rest of the animals. He forgets that a disordered personality, represented by a neurosis, has its origin primarily in the mind.

The advice given to a neurotic patient that he should "snap out of it," "pull himself together," and so on, is the very thing that he is usually quite unable to do without help. Such statements by the physician or others make the patient worse rather than better, because they add to the burden of chronic emotional over-load which generally lies at the root of his trouble. It is the presence of a prolonged history of emotional upset in the form of worry, with its attendant train of anxiety and depressing thoughts, which generally is responsible for the immense progeny of symptoms found in the neurotically ill.

In this discussion we shall not consider forms of mental illness functional in appearance, but mainly caused by other factors as

toxic, organic or nutritional. Nor shall we consider the deeper personality derangements represented by the psychosis.

A statement made to a neurotic patient that he can cure his suffering by a direct voluntary attack upon his symptoms, is practically equivalent to telling him that he has been wilfully putting his symptoms on and can, if he makes sufficient effort, take them off as one might remove a coat. Indeed the term "will power" has been extensively misused in dealing with the functionally sick. It is too often, with all good intentions, of course, dinned into the patient's ears by his relatives, friends and neighbors, who in their feeling of competency to advise in this complicated field, proceed to do so assiduously to the serious detriment of the afflicted person. "Inspirational" writers turn out reams and reams of fluff about the efficacy of "will power" as a means of eradicating neurotic symptoms directly. When neurotic patients who come to a physician as a court of last resort are told that they can and should banish their symptoms directly by voluntary effort, they feel that they are being let down, as indeed they are, by the very one whom they are entitled to look to for guidance, relief and cure.

It should be emphasized that a direct voluntary attack by the pa-

tient upon his symptoms tends to make them worse, because the effort increases the emotional tension and worry that underlie the neurotic state. Of course, the proper use by the patient of his will is indispensable in attaining a cure; but his will must be guided by the aid of his intelligence in making such changes and adjustments of action and attitudes as will remove undue and prolonged states of psychological strain. The use of the will power applied directly against the neurotic symptoms does not cure the illness any more than throwing water upon smoke will put out a fire.

It can not be too strongly emphasized that neurotic suffering is real to the patient, who is acutely aware of the fact of his sufferings, but is wholly unaware of their true source in psychological over-tension. Indeed the patient tends to resent the real explanation of the source of his trouble, for he has already by subconscious processes placed the blame for his illness upon some part or organ of his own body, or mind, or upon outside agencies or other persons. He thus assumes a scapegoat to which he transfers blame for his illness and incapacity. Tearing away such a patient's adjustments, faulty though they are, without at the same time giving him a more secure means of getting on, is like taking a crutch away from a cripple. Frequently the process of a more healthy readjustment taxes to the utmost the knowledge, patience, tact and skill of the phy-

sician.

The problem of neurosis is large indeed. The number of neurotics is unbelievably large. It has been estimated that in some sixty to eighty per cent of all patients no organic cause can be found for their complaints. There is some divergence of opinion as to the precise extent of neurotic suffering; thousands of these patients do not visit the physician at all; other thousands who seek professional aid are not reported in the literature.

For the physician the problem is first the question of a correct diagnosis. A physician can more readily differentiate neurotic symptoms from those due primarily to organic disease, who keeps clearly in mind, on the one hand, their cause, and on the other, their protean multiplicity.

The intimate unity of mind and body is clearly evident in the physiological changes that result from mental activity, especially when the emotions are aroused. Such physiological changes have been demonstrated by Professor Cannon of Harvard and many other scientists. It has been shown that under the stimulus of emotion, the energy-releasing functions of the body are thrown into high gear. Professor Cannon showed that when a cat was angered by a dog barking outside of its cage, its muscles became tense, its hair rose, its respiration was increased, its heart did more work by putting out an increased volume of blood which was shunted in greater

amounts through the voluntary musculature, heart and brain and flowed in lesser volume through the digestive organs. The tonus and activity of the alimentary tube was much modified. There was a closing of the pyloric end of the stomach. The intestinal peristalsis was first increased and then diminished. The digestive processes were delayed. The blood sugar increased rapidly from hydrolysis of glycogen. The clotting time of the blood was shortened. In brief, under the spur of emotion, there was a sudden discharge of energy as a means of dealing with a situation which in the course of nature would have required attack or retreat. The catabolic functions were accelerated and the anabolic functions temporarily delayed or suspended. It has been shown that profound physiological changes also occur in the human organism in response to mental and emotional activity. Many of the symptoms complained of by the neurotic can be explained in terms of the changed physiological activity which occurs under the spur of mental and emotional states.

Normally such a rapid release of energy under the drive of emotion is not detrimental to the body if not unduly prolonged. Indeed the proper use of the emotions is of enormous constructive value in the accomplishment of work. Enthusiasm, for example, if sensibly guided, makes work easier. Normally, enthusiasm for a task subsides at its accomplishment. The

fall of the emotions thus permits the constructive anabolic activity of digestion, absorption and assimilation to restore the energy of the body to a normal level. A serious disturbance in the natural balance between energy used and energy restored occurs in prolonged emotional states as in chronic worry.

The chronic worry of the neurotic, or potential neurotic, is a grave biological and psychological offense. Many of his symptoms are expressions of depletion of energy or of upset physiology. He refers symptoms to his heart, stomach and other organs whose functions are modified as a result of emotion. Moreover, sensory impulses, usually subconscious, are amplified as a result of introspection. Psychic influence may change in various ways any of the bodily functions acting through the somatic and visceral divisions of the peripheral nervous system.

In the limited space at our disposal, we shall illustrate the principle of organic mimicry of functional disease by noting some gastro-intestinal changes caused by personality disturbances. Similar functional distortions could be noted in the other organs or systems of the body, but space is not available for their consideration.

Salivary secretion may be disturbed by mental states, either in a plus or minus direction depending, not on the type of affect (emotional or feeling tone) but on the personality type. (Psychogenic ptyalism or xerostomia.)

The same principle holds for the gastric secretion. The amount and character of gastric secretion is sensitively modified by emotional states. Aversion for food ingested may cause achylia and indigestion. The same holds for worry and strain. Cannon cited a case of a sensitive, refined woman who was brought to Boston by her husband for a medical examination. She was given a test meal which was found when examined to be entirely undigested. The physician learned that her husband had utilized his visit to that city to become untrollably intoxicated. A test meal the following morning, after her spouse had become sober and she had a good night's sleep, showed a normal degree of digestion.

Psychic disturbances may also cause changes of bile and pancreatic functions. Indeed the word melancholia indicates that the ancients recognized that a relation existed between the depressed emotional states and bile secretion. It is only fairly recently that science has confirmed these implications experimentally. Dogs with bile-duct fistulas show, when angered, a complete stoppage or delayed flow of bile. Wittkower and others showed that the flow of bile increases in euphoric states but that in dysphoric states it is diminished. The latter result is probably due, at least in part, to spasm of the bile ducts. The exact effect of emotional states on the secretory output of liver and pancreas is less fully known.

Such a motor response of the

bile ducts would account for emotional icterus (*Icterus ex emotione*) described long ago by Morgagni and in later years by others. Marchiafava states that the course of emotional icterus is usually short and not serious, but may be fatal.

Motor changes of the gastrointestinal tract, like the secretory changes noted above, are also well known to result from personality disturbances. Every practicing physician encounters many patients presenting such symptoms. *Globus hystericus* may be a part of a much larger syndrome, including many symptoms such as gastric, cardiac, ocular, cephalic, etc. *Globus* is a very common tell-tale indication of personality disequilibrium.

Cardiospasm also may have a similar cause; though of course, various organic factors, as carcinoma of the stomach and ulcer of the lower esophagus, should be rigidly excluded. Whether psychogenic or organic in its origin, certainly its secondary effects—oesophageal dilation, bacterial decomposition of the static food contents with toxic end products, erosion of oesophageal walls and even mediastinitis—are well known. Psychotherapeutic measures may prevent functional cardiospasm or remove it in the earlier stages; in later stages it must be mechanically dilated whether functional or organic in origin, if a cure is to be effected.

Motor upset of the stomach is known to be an especially sensitive

indicator of psychic imbalance. This, with concomitant secretory disturbance, forms the basis of many neurotic gastric complaints.

Physiologists have long known that stimulation of the sympathetic nerves to the stomach lessens its tonus, secretion and peristaltic movements; while stimulation of the vagus nerves have an opposite effect. The writer has often noted in the laboratory that strong stimulation of the vagus nerves may cause reverse gastric peristalsis.

It should be remembered also that sensory nerves (visceral afferent) extend from the stomach to the neuraxis at two levels—spinal cord and medulla oblongata, giving two locations for direct or referred visceral pain. We have not space here to note clinical implications of this important principle. It should be remembered that increased tension in any hollow organ is an adequate stimulus for pain, often excruciating, as in colics of gall-and kidney ducts. Pylorospasm and colospasm may also give rise to pain. The gastrointestinal organs may be handled or even sectioned by the surgeon without pain if he avoids tugging on the mesenteries which transmits traction to the pain-sensitive parietal peritoneum. Hence the untrue statements often found in clinical writings that the "stomach and intestines have no sensory nerves." Tension in any hollow organ tends to act as a vicious cycle,—spasm-pain-spasm.

It has been shown that the idea of ingestion of food for which the

subject has an aversion may completely stop gastric peristalsis and render the stomach atonic. Also a feeling of disgust for food has been observed experimentally to cause reverse peristalsis. Any deep emotion either dysphoric or euphoric may upset digestion. A feeling of fulness in the upper abdomen in the neurotic individual after meals is, as Cannon suggests, due to delay or cessation of gastric and intestinal peristalsis and impairment of chemical digestive processes. The patient feels the weight of food which stays undigested in the stomach. Bacteriological decomposition then gives rise to irritative toxic products. A single gastric test may give little etiological information.

It is only fairly recently that the fact has been understood that peptic ulcer may be psychic in origin resulting from upset of gastric secretion, tonus and motility. It has been observed clinically that recurring periods of psychic upset in the form of worry, anxiety, etc., often coincide with recurrences of peptic ulcer.

Pylorospasm, like cardiospasm, occurs on a reflex basis from focal pathological lesions, but it also occurs on a psychogenic basis. Surgeons have recorded also that spasms of the small intestines, observed clinically and roentgenologically, were found to have disappeared when a laparotomy had been made.

The colon is also a sensitive indicator of psychic distress. It is now known that in most cases the

conditions described as "mucous colitis" of other times is an organ response to mental upset and can be cured only by adequate mental and emotional adjustment.

It is interesting that the methods and techniques based on diverse psycho-therapeutic principles often cause the disappearance of neurotic symptoms, particularly when they are superficial in origin. Deeper functional syndromes have been attacked through the years, too often without success. Neurotics have been treated and treated with drugs. However, the application of expert knowledge of chemo-therapeutics has left the mental problems unresolved and the neurotic symptoms untouched.

How often the neurotic patients in older times presented multiple abdominal scars from numerous operations. These scars bore testimony of the attempt to remove by surgical means the foci of trouble which was not to be found in the abdomens of patients but in their disturbed states of mind. Of course the surgical removal of psycho-physiologically disturbed, but structurally normal, organs has no influence for cure. Removal of such organs generally increases in the long run, the patient's complaints. Excision of the ovaries for functional complaints, as was not infrequently tried in earlier surgical attempts, with all the consequences of an artificial menopause, was a physiological and psychological calamity to the patient and, if performed to prevent

conception, was a serious social and ethical wrong.

It is, of course, as illogical to remove a visceral organ which is merely reflecting a psychic disturbance as it would be to amputate the extremities for hysterical paralysis, or to enucleate the eyes for hysterical blindness. In the light of modern knowledge, the surgical approach is untenable in the treatment of neurosis.

It goes without saying that the methods and procedures of the cults form an inadequate approach. This includes the materialistic psychology of the Freudian school with its underlying assumptions, many of which are unscientific, untrue and therapeutically wasteful. Moreover, the methods involved may do harm by undermining the foundations of the patient's thinking and character when these are grounded on the principles of religion, common sense and the crystalized wisdom of human experience.

Unbiased study of neurotic patients will generally reveal a history of prolonged states of worry and psychological strain. The causes of the strain can be as manifold as human aims and aspirations. Continuous frustration of desire in the numberless strivings of the human personality precipitates a neurosis in the poorly managed mind. If the personality drives are not dealt with constructively and ethically on a satisfactory basis of reality by the various possibilities inherent in com-

penetration, sublimation and rational adjustment, a neurosis may result. The way to prevent or cure a neurosis is to lead the patient to become fully adjusted in life.

Recently an old lady afflicted with *petit mal* told me that when young she suffered continuously from chronic nervous breakdown. "How were you cured?" I asked. She replied, "I was completely and permanently cured by making an unconditional surrender to God."

The truths of religion applied

without reservation or limit to the numberless problems of men in all their manifold aims and strivings offer a universal means of adjustment and lead to the richest possible ways of life in all of its relations. A sincere application of religion to life in all ordinary, as well as extraordinary, affairs would bring automatically a mental and emotional adjustment in all of life's problems and result in such peace of mind and heart that personality imbalance in the form of neurosis would simply disappear as a problem from the world.

AN ENGLISH DOCTOR'S SPELLING

By JAMES J. WALSH, M.D., Ph.D.

The book, *Great Catholics*, (Macmillan Co., New York, 1939) which has recently been selected as the book of the month by the Catholic Book Club has a very interesting sketch of Dr. Linacre, after whom our little quarterly is named. It is written by Dr. W. J. O'Donovan of London who has been very much interested in details of Linacre's life. Linacre whose life was nearly equally divided between the fifteenth and sixteenth centuries (1460-1524) was one of the most distinguished scholars of that time, the Renaissance. Among his patients were the Lord High Treasurer Sir Reginald Bray, Thomas Wolsey,

Archbishop of York, and William Warham, Archbishop of Canterbury. Among his distinguished pupils in the humanities were Prince Arthur, the Princess Mary, Sir (now St.) Thomas More, and Erasmus, so thoroughly respected for his scholarship.

It is not with the idea of dwelling on Linacre's attainments, medical or scholastic, that I thought to write this brief article, but to show how our English language was spelled five hundred years ago and what a blessing it would be for many of us who sometimes find spelling a maze if we had only lived at that period when the rule was that you spelled as you pro-