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Disease and the Social System

Disease and the Social System

by

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TO

MY WIFE

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Milestones

HIPPOCRATES urged the importance of social, even spiritual, factors in disease. Loss of memory is usually brief, for trifles. Truth is interred in the deeper strata of memory. Hippocrates died in 357 B.C.

Knowledge is like the moon. It seems unattainable. Like the moon it waxes and wanes.

This chapter is not a cameo of medical history. It points a few landmarks, and a few gross errors in medical philosophy.

The Greek approach varied in different epochs. It had one unchanging fundamental. Man was studied as a total mechanism. He was an individual amended by disease. The pattern of disease was determined by its victim's nature. Hippocrates studied not a superadded and half-ethereal entity called disease, but the indivisible unit of man reacting to it. Patient, disease and doctor merged in an indissoluble triad. Treatment depended on this concept.

This attitude was crystallised in Aristotle's conception of human temperaments. Each, in disease, was liable to its own pathology and symptom complex. We read attenuated scraps of medical history. We offer our inane patronage to the Greek concept of bilious and choleric types. We were nurtured in a biochemical era. Biochemistry is a prime foundation of our calling. But it has led to a conception of medicine in which a patient is a vortex of chemicals. They circulate fortuitously *en route* to the test-tube. We forget that human beings have each their particular biochemistry. We judge precipitately in reading our Aristotle with a ghostly sneer. Man's psyche is warped and mutilated by the surge of pain. The lab. boy knows the answer. Truth lies hidden in a well. This is debatable. But it is inconceivable that truth should reside in a test-tube.

Greece died. Night fell. The candles still burned in Arabia. Day came with the Renaissance. It was a curious

and insatiable age. Da Vinci was its child. Engineer, painter, anatomist, he saw too, through the smoke-screen of uncertain data, the truths that Harvey classified. In a society vitalised by such minds, medicine joined the crusade for mechanistic explanation. We omnivorously dissected the human body. We tore the first veils from human biology. It is not the first time that medicine has erred by succumbing to the infection of current thought. Today we worship the mammon of bureaucracy. We bow too much to the half-alien goddess of laboratory science. What we practise is an art.

Yet Renaissance medicine was immensely useful. It disentombed from the strata of misty conjecture the naked and irrefutable bones of medical science. It had limitations. Treatment remained violent, barbaric and lethal.

Renaissance medicine fell between two stools. It achieved much in those sciences which are the raw material of the art of medicine. Eager to replace the defection of missing data it lapsed into wild conjecture and intemperate theories pertaining to the nature of disease. These two motives were symptomatic of an age distinguished by intellectual experiment, doubt and violence. Such a world, preoccupied with man's nature and destiny, spared little time for the pain and frustration of individual men. This age has analogies with modern Germany. Here we have technical aptitude, clear, ruthless logic in the sphere of science, and the same disordered mysticism. Here also we have the same contempt for the pains of men, the same distraught theories of man's destiny—in a German world. The Renaissance was a brilliant and brutal epoch in man's upward journey. Germanism is a similar era on his downward path.

Our next landmark is the age of Sydenham. He was the pursuing ghost of Hippocrates. He painted diseases in clear, terse outlines. He saw them as accretions of objective signs. He sifted the real from the conjectural. He was less than Hippocrates. He lacked the universal outlook. He saw clearly the surface layers of morbidity. His eyes was accurate, unbiased but unpenetrating. He gave us the superficial mosaic of many diseases. He was unconcerned with the moulding of disease by the nature of its victims. He hinted at hidden causes.

Two centuries later these causes were studied. We were

enlightened and enslaved by the brilliant and disastrous vogue of Pasteur. He initiated the germ theory. He founded the science of public health. He did *not* erect the first signposts of preventive medicine. Public health is concerned with the mass deletion of adverse factors. Under its aegis we open our windows and drain swamps. But preventive medicine must include also the protection of those vulnerable loci innate in the individual. These are not solely the absence of immune bodies. The disposition of men determines their breakdown from non-infective common ailments, *e.g.* in duodenal ulcer and hyperthyroidism. Preventive medicine must search more the brittle fabric of man's personality. Till then it will be no more than a pretentious handmaid of sanitation.

The age of Pasteur was immensely productive. It is obviously important to ascribe diphtheria to a particular microbe. Such infections afford us our few opportunities for specific cure. But the diseases for which we possess specific remedies are lamentably few. Again, while it is important to trace the infection of a minority to the Loeffler bacillus, it is equally important to learn why the majority escape. It is merely specious to answer that they are immune, that they possess the defensive antitoxins, presumably by the operation of vested interests. Why are they immune ? One day we will realise that immunity and liability to diseases are factors inextricably connected with the personality of men.

Pasteur retarded the progress of medicine by a hundred years. Hippocrates studied man in disease. Sydenham studied disease in its impact on man. Pasteur redirected attention to disease *per se*. The germ theory has led us to consider disease as a disembodied entity. It is something that alights ephemerally to feed on the culture medium of stricken man. But personality is not a pabulum for the growth of germs or a stony citadel for their repulsion. It is something which at times admits the invasion of microbes not solely because of their strength and numbers, but to solve problems of strain and mental conflicts. Personality acts as a whole. It determines the tactics of our tissues. Our physical illnesses are often strategic withdrawals from an adverse milieu. Sometimes our personality resists an infecting force at the cost of a nervous breakdown ; and always it is the total personality, and not

the unhealthy throat or the inactive plasma, which succumbs to the forces of pathology.

By personality I convey the Greek conception of psyche. Body and mind are indivisible. Their interaction is harmonious in health. Disease is the disruption of this harmony. In using this concept I imply that mental traits and physical characteristics including physique are to be regarded as an inseparable complex.

We have not recovered from Pasteur. Had he been a doctor he might not have dragged us so violently from the age of Sydenham. The contemplation of man is a clinical necessity. In laboratories it is an accident. We are returning to the age of Sydenham. When we arrive, there are still whole worlds to travel. And from Sydenham it is two thousand years backward, or forward, to Hippocrates. " Eternally rolleth the wheel of existence."

There are two main currents in modern medicine. (I refer to our period of reprieve between two wars.) First there is the cult of surgery. I say ' cult ' deliberately to distinguish the ephemeral fad from the sound technique. Surgery was recently debased by the practice of black magic. Viscera were removed wholesale by dogmatic optimists born tragically before their time. Their proper destiny was demolition. I do not allude to the treatment of abdominal crises, the removal of cancers or the reasonable risks of surgery where medicine fails after proper trial. This lust for viscera has subsided. We no longer remove large tracts of bowel for conditions attributable to nervous spasm (mucous colitis.) Young women are no longer de-sexed for menstrual dysfunction of glandular causation. Such methods cure menstrual disturbance. Destruction is a form of correction. Death is a kind of cure. But glandular, psychological and autonomic nervous factors still function adversely when the womb and the ovaries have gone. Such operations added the tragedy of an early menopause to patients ill already.

We still see, too often, the useless laparotomy. Obsessional neurotics with dyspeptic symptoms, duodenal in nature, are still carved up, found to be ulcer free, and snarled at by surgeons for giving trouble. Nearly all obsessionals are chronically dyspeptic. Psychiatrists are called in after, not

before, the operation. The patient's morale has further deteriorated. Return of symptoms after operation is peculiarly depressing.

Surgeons still realise too little that symptoms are often a local expression of general disharmony. Many cannot grasp that disease, expressed through an organ, is not necessarily contained within the limits of that organ. Appendicitis may be thus self-contained. Even here there are girls in their teens in whom appendicitis and repressed sexuality are concurrent. (I do not refer to those cases where the appendix is a more accessible target in ovarian pain.) But peptic ulcer, chronic colitis and thyro-toxic states are not self-contained. They have as accompaniments neurosis, peculiarities of temperament and vegetative imbalance. These conditions demand that the patient be considered as a whole and be treated primarily on medical lines. Some require later the violent corrective of surgery. When we apply surgery to such cases we are making a patchwork effort for those who have failed to adjust to circumstances as a whole. They have suffered a disharmony in the interaction of nervous, glandular, biochemical and psychological factors. Thyroid and duodenal operations are an attempt to simplify this elaborate chain.

Some surgeons do realise that disease is a local signal of total abreaction. This leads them to worse excesses. Their surgical model is the dip in the bran tub at the local fair. Such were the ideals of that pioneer of the higher surgery who removed a young girl's uterus to cure her fits.

Medicine is becoming the study of personality. Such surgery is the last kick of those for whom all disease is localised. It is blind carpentry performed by persons of inadequate culture. Surgery involves fragmentary extirpations. It is therefore prone to piecemeal views and the vast fallacies of restricted vision. The surgeon of the future will in truth be a physician with manual gifts.

Fortunately such surgeons are growing rare. Far less than formerly we see in our scarred patients the marks of those ardent excavators who, starting at the anus, as a tribute to social convention, pointed like Dickens' Agnes ever upwards, devouring as they went.

Psychiatry is the current tendency of most importance.

Before 1914 medical text-books contained compressed addenda on mental diseases with a few vague pages on neurosis. Of these latter hysteria was given most attention. It revealed more physical signs. Nowadays the literature of psychiatry is as comprehensive as that of general medicine.

This vogue is not wholly due to Freud. His chief findings were disclosed quite early in the century. The last war provided psychiatry with the necessary fillip. Freud was discovered and used because he was available and necessary. The last war had a single valuable result. It proved that adverse circumstances produce neurosis. Wisdom has a high purchase price. We have advanced a little from this early lesson. Psychiatry is trying hard to outline the reaction of different varieties of men to different sets of conditions. It adds to our therapy a rational method because, intelligently applied, it deals with personality as a whole. We are discovering that emotional states have not only physical consequences but chemical changes measurable by laboratory techniques. These emotional states, capable of such widespread effects, are related to and derived from our instincts. These are the very essence of our nature. Our sex and self-preservative instincts in particular are our most primordial possessions. The kind of personality we exhibit depends on the relative development of these primary instincts. We are thus moulding for ourselves a progressive and enlightening technique whereby we can trace the biochemical reactions and physical symptoms which characterise different types of men. I mean, by types, not merely the crude criteria of stature, posture and colouring, but also the patient's chief emotional attributes. We are thus giving breadth and stature to Aristotle's theories of temperament. He associated habitual emotional responses with the dominating function of some particular organ. We consider human types whose emotional traits are indivisible both with the physical signs they commonly exhibit and a particular complex of chemical reactions.

Our progress in psychiatry does not presage, at any early date, a golden age in medicine. That day will be deferred till psychiatry and general medicine have completely merged. This desirable consummation is beyond our day. Psychiatry is a branch of medicine. One day the position will be quite

reversed. But not till psychiatry has changed. It must abandon completely its use of exclusively psychological techniques. Psycho-analysis is as retrograde as bad surgery. Both are parochial. The proper study of mankind, in medicine as elsewhere, is always man.

Modern psychiatry is too apologetic. It has an inferiority complex. Psychiatry achieved nothing for decades. It discovered psycho-analysis. It fashioned an elaborate farce from a grain of truth. Intemperate psychiatrists have bored and exasperated a tolerant profession. Psychiatry halts uncertainly. It does not sufficiently enter the domain of physical disease. We recognise the rôle of psychological factors in functional diseases like dyspepsia. We see their part in organic conditions like rheumatism and peptic ulcer. There are so many other physical diseases induced by strain. As doctors we are confronted chiefly with chronic constitutional conditions, like diabetes, arterio-sclerosis, peptic ulcers, etc. The pioneering impulse of psychological thinking should scour this field. We need to floodlight the whole emotional background of disease. Much expert thinking is wasted in glamorous and mephitic channels. It is fascinating to reflect that dreaming of tunnels indicts our aunt. It helps little in solving the major problems of medicine. Psychiatry would be better employed in elucidating the note of strain in those physical diseases, chronic in nature, which defy cure, which express themselves in wear and tear, and which tend to increase. Knowledge takes time. The mills of God, like the technique of psycho-analysis, grind exceedingly slowly. But the good country doctor, perhaps the highest form of scientific humanist, has observed for decades the effects of misery and strain in these conditions. It is the duty of those with specialist knowledge to make articulate the intuitions of the rank and file. In this book I will try to prove that many diseases we call physical are due in part to the reaction between adverse factors and traits of temperament.

Psychiatry has done great service in stressing the effect of environment on man. It emphasises the effect of influences in early life. But its conception of environment is too parochial. It is too confined to the family milieu. It fails to think in more cosmic spheres. It does not deal with the morbidity induced by man's social and economic stratum. Most of all it fails

to appreciate the influence on health of the beliefs of the civilisation which he inherits.

But with all its faults the new psychology has at least taught that mental reactions, produced by environment, have physical counterparts. If we include in environment the intentions and beliefs of the age we are returning to the Greek approach. The wheel will come full circle.

In this book I deal much with strain. I mention first its effects. I define its nature later. Last of all I deal with its correction. It is only by such a technique that my theme can logically develop. The method is justified by tradition. Symptoms are discovered before causes. Treatment is often deferred.

This book is in four sections. The first deals with personality in relation to disease. This is necessary because it is our personality and not any individual organ or tissue which interprets and sustains environmental stresses. The second section explains how most chronic disease, physical as well as nervous, is neuropathic in nature and attributable to the effect of abnormal emotion on vulnerable personalities. The third section reviews the effect of the social system in providing a background conducive to abnormal emotion. The last section deals with tendencies in medicine which prevent our dealing adequately with current problems. It discusses the nature of health and, briefly, some necessary reforms.

This book is non-statistical and undocumented. This is deliberately done. It deals largely with primitive aims, necessities and errors in medicine. These defy mathematical expression. Our profession being an art, ideas have more importance than numerical symbols. This book is written for the profession in general, and in particular for the inarticulate majority for whom man and his sufferings are of greater moment than the findings of group research. It is, too, suggestive rather than dogmatic. In years of transition it is better to stimulate thought than to ape certitude.

Book One

Disease and Personality

Chapter One

Disease and Personality

We will now consider the relation between disease and personality. In dealing with disease attributable to the social system it is necessary to outline types of personality. It is after all the whole psyche, the indivisible complex of mind and body, which sustains the frequent shocks and the rarer benedictions of the social system. Only the whole man can be moulded by circumstance. We must therefore study varieties of men.

In this chapter, in discussing disease we will deal largely with what we still call physical disease. The connection between certain types of personality and particular mental and nervous diseases is already established.

The study of personality in medicine is so far primitive. It is covered by the concept of diathesis. People with certain physical characteristics are subject to particular diseases. Red hair, freckles and rheumatism are sometimes found together. Diathesis implies also the familial transmission of metabolic errors. In gout there exists an innate inability to oxidise uric acid.

The time is ripe for a wider conception of diathesis. Peculiarities of colouring, configuration or chemistry are only part of the picture. Predominant emotional and intellectual traits are found in association with particular types of organic disease. The subjects of duodenal ulcer are a good example. They are conscientious, they have a lust for perfection. They choose those callings which employ excessively their major traits. We find them as doctors. Their work is hard and responsible. Their time schedule is ruthless. Duodenal patients are mental and physical sprinters. They have hobbies but no pleasures. Even at play they have standards

to maintain. Their golf is more intense than other men's work. Many are obsessional neurotics. These traits explain the chronicity of their affliction. Though they receive the correct diet, abstain from alcohol and tobacco, and take their medicines punctually—they are predisposed to follow instructions carefully—they continue to be plagued with symptoms. Their mental foibles continue to operate. In duodenal cases we have learnt the importance of psychological, as well as physical, rest. But mental rest is impossible unless we amend our patient's nature. It is necessary to tone down his insatiable conscientiousness.

Can the leopard change his spots? We cannot alter our deep biological nature. We maintain throughout life the temperament we inherit. It continues to plague us on our death-bed. Can our duodenal case hope for no permanent relief from his dyspepsia? The answer is that there are two varieties of case.

It is rather speciously held that duodenal ulcer occurs in association with neurosis. Some such cases undoubtedly exist. It is, however, more accurate to say that duodenal symptoms are a solution of psychological difficulties, *i.e.* a substitute for a neurosis. Given the same conditions some people develop an anxiety or obsessional neurosis, others symptoms referable to the duodenum. These conditions exist commonly in combination. We are told that duodenal symptoms are preceded by prolonged or intense anxiety. This is not always so. The preceding conditions are such as give reasonable ground for anxiety. This is by no means the same. One person responds by conscious worry. He develops a neurosis. The other produces a pyloric ulcer.

But there is an entirely different kind of duodenal case. In this the innate excessive drive of the individual induces the symptoms. His engines are too highly geared. I know well that in such cases the psycho-analytic argument is that the excessive drive is compensatory, that it is induced by an inferiority feeling which the individual attempts to overcome by excessive achievement. But this does not explain all

these cases. There are many without signs of inferiority complex. Their dynamos have always revolved at a super-normal tempo. Pituitary activity is partly responsible (see later).

Where this high-powered drive is innately embedded in the psyche the individual is more prone to active ulceration. Where these psychological accompaniments are acquired, as compensation for a sense of guilt, we more often find duodenal symptoms with no marked lesion. The inherited abreactions of the psyche induce organic disease. Acquired neurosis leads to functional dyspepsia. Mixed types inevitably exist.

There is a large incidence of duodenal ulcers in the U.S.A. The figure formerly greatly exceeded that in England. This has been ascribed to the stress of American business life. Intense business activity is usually a response to adverse economic factors. Business conditions as a whole have been far more favourable in America than in England. It would be far sounder to ascribe the greater incidence of duodenal ulcer in the United States to the fact that for generations, until quite recently, they attracted from England a restless, pioneering type of individual dissatisfied with the restrictions and inertia of existence in an aged country. The tense hatchet-face of Uncle Sam is vastly different from the bovine features of John Bull. The striking differences of physiognomy between Englishmen and Americans of English ancestry is a source of comment. They consider it incredible that both should derive from a common stock.

In duodenal cases the question of lasting relief depends on the patient's sub-type. If his symptoms are associated with adolescent impressions, or conflict, we can do a lot. In the presence of innate defects of temperament the symptoms persist.

We cannot as yet cope with those flaws in personality which induce in each their coincident disease. Once an ulcer, always an ulcer type. This is what we tell our patient, but not in so many words. It is tacitly implied in our instruction to him. We require him, over years, to live to a rigid regime.

In all diseases where we lay down a long-term pattern of life for the patient we know we can do nothing to remedy his fundamental flaw. And what are the diseases which involve maintaining a regime for years and in which, with or without the regime, the patient is liable to relapse or deteriorate? Peptic ulceration, hyperthyroidism, diabetes, rheumatism, arterio-sclerosis and chronic nephritis, etc. With the exception of carcinoma and pneumonia these are the diseases responsible for our greatest morbidity. These are the killing diseases and thus our most urgent problem in medicine.

I shall try from diseases of this type to derive a concept of vulnerable personalities. All have a strong hereditary factor. The country doctor, treating more than one generation, regards these ailments as familial crosses. They are the destiny of foredoomed psyches. We can help them considerably. Alleviating drugs improve each day. Even planning a regime is a helpful and rational procedure. But how often can the patient fulfil our instructions? Economic considerations prevent him. Temperamental foibles restrict him equally. We prescribe repose for our arterio-sclerotic. It is often of his nature to live excessively hard. It is often disastrous to enforce ideal regimes. It is deadly to alter the pattern of men's lives at sixty. In chronic disease we advise our patients to conserve their energies. They are often safer continuing their careers of risk.

Can we repair the inherited flaws in our chronic patients? Can we repair their shredded fabric? It is inconceivable that any therapy will halt an artery's penchant for quick decay. We cannot repair individual patients. We can alter the system which induces, through generations, these inbred flaws and which continues to bombard without mercy the unfortunates who inherit them.

These diseases are the somatic protests of defeated psyches. It is my theme that Western civilisation engenders neuropathy. I use this term to convey something more than the mere tendency to neurosis and psychosis. Certainly it embodies a more vulnerable nervous system. The latter binds together

the body and mind within us. More than this it is the bridge between the world without and the inner universe of our viscera. It is therefore only natural that it should interpret all noxious agencies and aid in the expression of all physical and mental ills. From this growing neuropathy arise not only our neuroses but also our chronic constitutional diseases. This growing neuropathy is very logically due to conditions imposed from without. Our nervous system puts out the exposed antennae of our being. These are increasingly mishandled. We will consider their tribulations in a later section.

Has society known always these intractably chronic ills? Yes, if we consider the recorded history of Western man. But they are far more common in the last few decades. They occur less frequently in primitive societies. Man must die somehow. Arterial decay is an accepted mode of death in all the strata of civilisation. It occurs much earlier in ours. Diabetes and kidney disease have long been terminal catastrophes in age. We should distinguish carefully between these diseases appearing as local aspects of senility and their occurrence in middle age. With us they appear earlier. Rheumatism, thyrotoxicosis and peptic ulceration, known for centuries, are reaching an alarming incidence. Each decade sees them contribute more liberally to morbidity and incapacity.

Chapter Two

The Emotional Causes of Physical Disease

In this chapter we deal further with diseases associated with different personality types.

Chronic constitutional diseases, like peptic ulcer, arterio-sclerosis, thyrotoxicosis, etc., we will refer to in future as strain diseases. These latter show certain peculiarities which distinguish them from infective conditions. They are largely due to the excessive production of chemical substances normally circulating in the tissues. In duodenal ulcer we have excessive production of hydrochloric acid, or its occurrence in secondary waves. In hyperthyroidism thyroidin is produced in excess or appears in a perverted form. In diabetes the blood sugar is excessive. In arterio-sclerosis, at any rate with hypertension, there is evidence of increased adrenaline activity. In rheumatism there is an increase of sarco-lactic acid in muscle and signs elsewhere of the acid diathesis. Patients commonly suffer from acid dyspepsia. This often presages the onset of rheumatoid arthritis or fibrositis. Rheumatic and duodenal conditions are commonly associated. I know one patient, subject to fibrositis, with a history of acute mon-articular arthritis, subacute endocarditis of rheumatic origin, duodenal ulcer, ureteric calculi (uric and oxalic acid) and parotid calculi. I am aware that in arterio-sclerosis the increased secretion of adrenaline is debatable. I will deal with this later. I am now merely establishing a general principle.

A second cardinal point is that similar reactions to those occurring in the strain diseases are produced by fear. To a large extent this contention can be proved by studying the effect of fear on animals and of chronic anxiety on human beings. Fear gives rise to excessive production of thyroid and

gastric secretion. Anxiety is an established factor in hyperthyroidism and duodenal ulcer. It raises the adrenaline curve. Worry is traditional in the genesis of arterio-sclerosis. Its deletion, where possible, is an axiom in treatment. Fear raises, too, the sugar content of the blood. Diabetes, which sees also such an elevation in blood sugar, is a disease of the persecuted and neurotic Jew.

A third common characteristic of these diseases is that they involve endocrine dysfunction. This is obvious in hyperthyroidism. In diabetes the inability to utilise excess sugar is due to pancreatic dysfunction. In Chapter V, I trace the connections between rheumatism and abnormal activity of the sex hormones. Duodenal ulcer is associated with pituitary disturbance. Experimental damage to the pituitary and its adjacent connections produces in animals lesions identical with, or comparable to, those of duodenal ulceration. I have often found evidence of gastric hypertonicity and duodenal symptoms amounting to ulceration in patients suffering from pituitary dyscrasia. Symptoms comparable to diabetes insipidus, admittedly a pituitary disturbance, occur concurrently with symptoms of duodenal activity. Sometimes they alternate with the duodenal symptoms. The patient passes frequently large amounts of pale urine of low specific gravity. Symptoms of duodenal ulcer or hypertonic stomach occur in intellectual pituitary types. The disease is treated in America by the insufflation of pituitary snuff. Most of all duodenal symptoms are characterised by their phasic nature. Glands other than the pituitary show a tendency to phasic activity. The pituitary shows a particular tendency to short phasic variations. These are often induced by external factors such as cold. Many pituitary types are rendered lethargic mentally and physically by a drop in temperature. Napoleon lost his drive and directive ability in the Russian snows before Borodino. Duodenal cases are notoriously affected by a cold east wind. These latter cases are characterised by histories extending over years in which periods of sickness and respite succeed each other with surprising regularity.

In hypertensive arterio-sclerosis there has been much debate as to the importance of the rôle of the adrenal medulla. I do not wish to dogmatise without adequate data. It is sufficient at this stage to point out merely that the suprarenal medulla is concerned with the maintenance and elevation of blood pressure and that its secretion, adrenaline, is beyond all doubt produced under the stimulus of fear.

I must emphasise, too, that if in these strain conditions all the characteristics laid down for the whole group are not present in each individual disease, I am limiting myself at this juncture to the definition of tendencies common to the whole group of chronic constitutional diseases.

A fourth factor found commonly in these strain conditions is vegetative imbalance. Hyperthyroidism is the dramatic version of excessive sympathetic activity. In duodenal ulcer we encounter pyloric spasm, hypertonic stomach and spastic constipation. Peripheral vasoconstriction plays its part in hyperpiesis and many cases of arterio-sclerosis. It is particularly evident in the spasmodic varieties of arterial disease with local effects. These are indeed treated often by sympathectomy.

To summarise, we find that the strain diseases are characterised by chemical and hormonal changes similar to those induced by anxiety, by endocrine dysfunction and by vegetative imbalance.

Can we go a step further and say that in these diseases the chemical and hormonal changes are, to a considerable extent, attributable to fear in its modern dress of chronic anxiety? In all these diseases, except possibly diabetes, worry and strain are recognised as precipitating and aggravating factors. They are even recognised as such in the very conservative standard text-books of general medicine. This is really significant seeing how little, till recently, the importance of mental factors has been admitted in general medicine. Secondly, all rational physiology points this way. Fear causes excessive sugar production in animals. Glycosuria occurs in numerous psychological states characterised by anxiety and agitation. It is found in acute anxiety neurosis, in melancholia, particularly the agitated

variety, and in delusional states where agitation is an important feature. It is also found in hyperthyroidism. The latter's connections with anxiety are traditional. We can regard such states of glycosuria occurring in conditions of anxiety as transient disturbances of the pancreas's function in the metabolism of sugar. It is at least reasonable to consider then that the factor of strain may equally operate in diabetes mellitus. This latter is a disease of the neurotic Jew. It has shown, too, in some localities, a remarkable increase in the last ten years. The mere fact that the diabetic may not present immediate anxiety symptoms does not in any way invalidate this theory. We shall see later how often physical disease is a substitution for psychological disturbance. If is often, indeed, a method of resolving mental conflict.

In the case of duodenal symptoms we find, too, the excess production of acid, with pyloric spasm and hypertonicity, as an association with anxiety in both acid dyspepsia and true ulceration. We should remember, too, that anxiety states are often presaged or accompanied by symptoms referable to the epigastrium. These latter, on close investigation, are found often to be, in actual fact, symptoms due to hypertonicity and excess acid.

Where fear induces the same biochemical or hormonal effects in experimental animals, and in neurotic and functional diseases where anxiety is obviously present, it is reasonable to assume that anxiety operates, too, in physical diseases where the same biochemical and endocrine effects are observed. This view is tenable by the standards of physiological logic. Certainly in organic disease other factors are present. The pancreas, thyroid, stomach, etc., are, from some other cause, more vulnerable than in non-physical conditions. But it is irrational to neglect the effects of anxiety when we approach the physical sphere. It is irrational to make unnecessarily complex the science of aetiology. The ultimate truths are always simple.

The anxiety factor is recognised in hyperthyroid states, peptic ulcer, rheumatism and arterio-sclerosis. I have hinted

at its existence in diabetes. It is present in certain cancers, which I will treat separately, though here I insist, too, that carcinoma, of certain types, is a constitutional strain condition. I have no data applicable to renal disease. While infections diminish, these diseases persist. Their incidence rises. It rises coincident with the strain, the insecurity, the quickened tempo of living. In all these conditions there is a hereditary tendency to psychological disturbances as well as to the particular diseases we are discussing. (See Chapter IX.)

What is the factor in the personality which causes *physical* diseases in response to strain? I have indicated that the endocrine system is the vulnerable focus. I believe the nature of the disease exhibited is determined by innate impoverishment of vitality in particular glands.

Endocrine studies reveal that different kinds of personality are due to the relative functioning of different glands. These types are not yet clearly demarcated in terms of endocrine function. We can, however, recognise the broader categories. We have pituitary man, with his gifts of intellect and judgment, with his bodily and cranial configuration perhaps best exemplified by Scandinavian types. We have the hirsute, pugnacious, adrenal man. We have, in asthenic types, an attenuated version of pituitary man. He represents the gland in hypofunction. We have our obese individuals, sometimes with obese minds, in whom we are able to attribute their condition either to pituitary or ovarian dysfunction. If we look closely we can always recognise gradations between the hypothetical normal and what are clearly endocrine cases. Slow cerebration, slow metabolism, slow pulse, emotional retardation, typify our cases of myxoedema. If we are careful we can often find, in those whom we merely classify as human vegetables, clear though undramatic evidence of subthyroidism. If we treat these latter subjects with thyroid we often obtain dramatic improvement. This applies particularly in the case of women. The thyroid is often as much the presiding regulator of woman's personality as the pituitary in men.

We have stressed the hereditary nature of these diseases.

Now anthropological teaching shows that the inheritance of racial characteristics depends on the transmission in each race of the peculiarities attributable to some particular gland, or combination of glands, in the endocrine system. This, and the fact that endocrine features determine, to such a large extent, the personality of the individual, makes it more than ever possible that these chronic constitutional diseases are due to innate flaws in the particular glands malfunctioning in each. This clearly applies in those conditions where transmission is specific, *e.g.* in the diabetic, arterio-sclerotic and goitre families.

We shall see later that there are families in whom rheumatism, peptic ulcers, particularly the duodenal variety, and neuroses occur in the different members. They express, in fact, my concept of a wider neuropathic diathesis. Now Western man has evolved a personality type in which the pituitary is the dominating gland in that it determines to some extent his physical and to a larger extent his mental characteristics. Pituitary activity proceeds concurrently with degree of intellect and the higher activities of the central nervous system. We shall see later that the central nervous system is peculiarly vulnerable and of impoverished vitality in Western man. Now from the physiological viewpoint the pituitary is also a kind of dominant. It regulates the others. It has its gonadotrophic, its thyrotropic and all the other hormones which stimulate the other glands to produce their own. If, then, the pituitary-central nervous combination is the weak point in the chain of our psyche, it is possible to see, given this general neuropathic diathesis we exhibit, how the latter, acting through the pituitary, can transmit by heredity a tendency to dysfunction in the other glands.

To decry the endocrine factor in determining personality is to attempt to dispute established facts in therapy. Successful endocrine treatment involves not merely an amelioration of symptoms but a gross change in personality. In the patient contracting myxoedema the outlines of his personality are not merely clouded by the smoke-screen of disease. He is altered totally. Should he respond to thyroid therapy he alters to a

similar degree. Menopausal melancholia was formerly considered an intractable and often chronic disease. Some cases can be cured in two or three months by treatment with male hormone, testosterone, particularly when applied by inunction. The patient is transformed from a self-accusing, depressed and deluded individual to one with an average quota of self-confidence. Such therapy as this does not involve a mere removal of symptoms. It involves a total change of personality.

Academic psychology questions whether such actual changes of personality occur. But such a change as that described above is expressed through the primary instincts. In the depressed and anxious phase the patient's instincts of self-abasement and self-preservation are abnormally developed. Personality, in its mental aspect, is built on the bedrock of primary instincts. Such patients as those described above achieve by recovery a change in their total personality. Mental diseases, indeed, provide us with frequent examples of these total changes. We write of cyclothymic subjects, indicating that elation and depression are different reactions of the same temperament. I doubt this greatly. It may apply in those of us who have, within normal limits, an up-and-down nature. The fluctuation is one of mood. Mood does not encompass the whole sphere of personality. In manic-depressive psychosis the patient in the manic phase has his assertive instincts abnormally developed. His instincts of self-preservation and self-abasement are minimal. In the depressed phase the instincts are developed in the reverse order. This, for all practical purposes, is a total change in the psyche. Superficial observers find it incredible to believe that patients seen on some occasions in mania, on others in melancholia, are the same persons. Their view is justified. They are not the same beings.

What we have said of the endocrine structure of personality is well exemplified by manic-depressive psychosis. In mania we often find signs of over-activity of the thyroid. In melancholia the gland function is abnormally reduced. There is no need to labour the question of virilism, the most obvious of all examples of a change of psyche of endocrine origin.

It is interesting that we only find these total changes in the psyche in mental diseases, and those conditions like myxoedema and Grave's disease which, by present nomenclature, are called endocrine diseases. Chronic physical disease in general may indeed be an attempt to retain the primordial personality in the face of stress. This is no wild conjecture. We will see later how often physical disease is a solution of psychological difficulties. It is a response to strain. Mental disease is often an evasion of it.

To sum up briefly the aetiology of these constitutional diseases. The factors of strain and anxiety are not merely precipitating but essential causes. The strain is transmitted through the central nervous system in virtue of a neuropathic tendency, wider in conception than that conveyed by the present meaning of the term. This I will amplify more fully later. The disease type is associated with the vulnerable factor in the endocrine system. It is expressed through the latter, with the collaboration of the autonomic nervous system which is inextricably connected with glandular dysfunction.

It is profitless to decry the influence of fear in inducing disease where endocrine factors play a part. Emotional factors are, after all, the fundamental stimulants of endocrine activity, and in this book we will discover more diseases connected with endocrine dysfunction than those which are recognised in the immediate present.

There are other chronic diseases, with a strong hereditary factor and a common biochemical tendency, which I exclude from consideration as personality diseases, from lack of data. These diseases are pernicious anaemia and hypochromatic anaemia in women, and carcinoma of the stomach. The biochemical tendency is deficiency in stomach acid. Other chronic diseases, such as some cases of rheumatoid arthritis, with a marked psychological background, have this particular characteristic. Diseases may be divisible later into those with an acid or sub-acid tendency. We have already an acid group, duodenal ulcer, hyperthyroidism and rheumatism. In this group we find the sympathetic nervous system in dominant

action. We may outline one day a sub-acid group with vagotonia. It was wisely said that men were divisible into those who went red or white in the throes of anger, *i.e.* into the vagotonics and sympatheticotonics. We cannot say if in the future disease types may be separated by the variety of autonomic imbalance they favour. Such a subdivision would trace more closely the connection between physical disease and emotional precipitants supplied by the environment. This is merely a suggestion, though certainly the medicine of the near future will concern itself largely with the autonomic system.

We have seen how the noxious factors of fear and strain induce a number of chronic maladies. It is an obvious implication that the social system should be altered to reduce the incidence of such strain. Is there any alternative policy? Can we, by eugenic planning, produce in man a pattern of endocrine elements less vulnerable, less liable to be seamed and scarred by our social weather? The prospect seems fantastic. I think it will remain so, though we must remember that our fingers trail as yet but feebly in the fine meshwork of endocrinology.

I feel that breeding selected types of psyche is a novelists's dream. (Nevertheless dreams come true in the modern world in proportion to their madness.) It is more likely we will try to achieve control of the autonomic system which expresses and regulates the activity of the ductless glands. The increased practice of progressive relaxation, though tardy and sadly limited, is a halting step in this direction.

The discussion of the effect of personality in physical disease can suitably be closed by two graphic examples. A and B were two men very similar in their predominant intellectual and emotional characteristics. They were afflicted with an identical crop of physical ailments. Both were doctors. Both were obsessional. This probably led them into medicine. The obsessional traits of A were expressed in compulsive thoughts which no effort of will could exclude from consciousness, and by irritating fads. His shoes had always to be arranged with their long axis deviating to the right. B had a marked tic

affecting his eyes. Such tics are compulsive actions similar in aetiology to A's arrangement of his shoes. Both had a rebellious sympathy for the underdog. Both hated humbugs. Both suffered from recurring dreams identical not only in nature and significance but in actual content. Both dreamt constantly of going up for examination without previously having opened a book, of appearing at stations with the train departing. These are common dreams. Their explanation is simple. But in those two individuals they came and came again.

A had a duodenal ulcer confirmed by X-ray. B suffered all his life from duodenal dyspepsia and possibly had a chronic ulcer. Both had ureteric calculi. Both had bad postures, with hollowing of the lumbar spines and atonic abdomens. A had his university career interrupted by heart disease. B died at a relatively early age of heart failure.

This is a striking example of similar personalities, assessed by mental characteristics, presenting a complete identity of disease reactions.

Personality plays a part in moulding our response to infection. Sometimes an organism produces two diseases. Syphilis is the best example. Its effects are so protean. Only a small proportion of syphilitics develop the neurological diseases, tabes and general paralysis. This has been ascribed to a neurotropic virus. Except in France this view has obtained little support. The rarity of syphilitic infection of the nervous system has been ascribed to the latter's complicated portals of infection. To me this has seemed always a little fatuous. Syphilis is a generalised and chronic infection. That it should abstain from attacking the nervous system because the latter is difficult of entry shows an unlikely lack of initiative.

Tabes and general paralysis are to a large extent determined by mental and nervous predisposition. In over eighty per cent. of cases of general paralysis Bolton found abnormal psychological heredity. Kinneir Wilson points out that where nervous syphilis of the same kind occurs in more than one member of a family the explanation is nervous predisposition. The occurrence of general paralysis after the shock of accidents

and after abnormal physical and mental strain (the retreat from Mons resulted in a remarkable crop of general paralytics) stresses the factor of personality.

Given syphilitic infection of the nervous system, what determines whether the malady will be general paralysis or tabes? There is evidence of a pre-paralytic personality. The previous history of such cases reveals a high level of competence and initiative. They have shown usually considerable gifts of action and transaction. General paralysis depends as much on the victim as the virus.

Physique, as we shall see in Chapter III, is a factor in definite association with types of physical disease. There is evidence that the type of physique determines the patient's liability to tabes or general paralysis. Adie claimed that tabetics could be recognised by their more elongated and asthenic type. Paralytics were of the more compact pyknic structure. I investigated this question using the indices of Pignet and Kretschmer. I found only a minimal development of asthenic patients, the tabetic type according to Adie, in general paralytics. Admittedly my paralytics were not overwhelmingly pyknic. But my patients were long-standing institutional cases showing considerable physical deterioration which, because wasting increases the height in proportion to the breadth, tends to produce markedly asthenic types. Adie, as a neurologist, had more opportunity to study early paralytics. I am convinced that, had I had the opportunity of investigating early cases of paralysis by the use of the two indices, my results would have been identical with his.

The physical aspect of personality may be a factor in determining disease in the case of specific infections where only one disease response is encountered. The subjects of encephalitis lethargica are asthenic types. This observation is borne out with amazing constancy. I cannot remember one indisputably thick-set individual afflicted with this malady. When one considers that this is a so-called specific fever, attributable to a particular virus, the personality factor seems very striking.

Chapter Three

Physique and Disease

In the last chapter we mentioned the influence of physique in determining type of disease. Previously the connection between physique and psychological disorder has been studied most. Kretschmer is the chief exponent of this technique. He traced the connection between types of configuration and particular mental disorders. His most dramatic discovery was that manic-depressive insanity is found chiefly in those of compact pyknic structure, whereas schizophrenia chiefly afflicts the asthenic type.

We will study this question in relation to physical disease. Our best-known example is the asthenic habit in pthisis. This is not a satisfactory example. Tuberculosis is so ubiquitous that it tends obviously to afflict all types. Nevertheless there is a definite preponderance of asthenic subjects. This is especially the case where the hereditary factor is marked, thereby implying a personality basis in this disease.

Duodenal ulcers occur mostly in those of asthenic type. Duodenal symptoms in stocky subjects are often functional. Thyrotoxic patients are nearly always asthenic. (I refer to their original physique. Loss of weight makes them increasingly asthenic.) The arterio-sclerotic tending to cerebral haemorrhage is usually a pyknic type.

We have seen how different diseases arise in persons of particular physical types. We will now study a reverse phenomenon, the effect of disease in altering posture. I will not deal with the crippling effects of physical disease, with the bending of the body with age or the malformation of limbs in chronic arthritis. We will study a condition where emotional factors so alter the configuration that the individual presents not only the physical signs by the physical shape of a certain disease.

We all know emphysema. It is characterised by a barrel-shaped chest and a rigid chest wall. The patient is hyper-resonant to percussion and the breath sounds distant. A certain degree of emphysema is a natural corollary of age. It occurs earlier in some. In such cases it is usually associated with early arterial decay. Sometimes it occurs quite early in middle age. In these cases signs of arterial degeneration are often less marked. We are particularly concerned with this premature emphysema.

There is a considerable sub-group with well-marked anxiety or depression. I do not see anxiety neurosis everywhere. It is not, for me, the equivalent of King Charles' head in Mr. Dick's memorial. I do *not* claim that chronic anxiety or depression is the chief factor in all cases of hypertrophic emphysema. But they are of the first importance in what I will call somatic emphysema.

I have read the aetiology of hypertrophic emphysema in many standard text-books. I find there several sensible theories as to the effect of chronic cough and the blowing of wind instruments. I find other theories emphatically less sensible. The inspiratory theory of Laennec and the expiratory theory of Jenner are merely descriptive paraphrases of pathological states. I find nowhere the slightest reference to anxiety.

I have seen many emphysematous patients in their thirties and early forties. The vast majority suffer from psychological disturbances. Some were neurotics, with chronic anxiety as the principal factor. Others were melancholics, others constitutionally depressive. In these latter cases the depression was complicated by anxiety. Practically all these cases were referred to me for psychological reasons. The emphysema was discovered as an incident in examination.

Chest examination of patients in mental institutions reveals an incidence of hypertrophic emphysema unmistakably higher than among the general population. It occurs, too, at a considerably earlier age.

In addition to the relatively inexpansible chest, with rigid muscles, the patient's head is thrust stiffly forward in an

attitude of anxious watchfulness. The neck, too, is held stiffly. The sternomastoid is harshly outlined. Its anterior margin is sharply defined. The trapezius is also abnormally tense. There is usually considerable fibrous thickening subjacent to its insertion in the external occipital protuberance.

How do we explain these peculiarities of configuration? The position of the head and neck is natural in states of tension. The shape of the chest is due to prolonged fixation of the chest muscles. In these cases it is a kind of physiological habit due to anxiety. It is an axiom that anxiety causes some of us to hold their breath. This observation is recorded endlessly in books of adventure and those devoted to the more palpitating hazards of sex. Respiration, arrested by anxiety, is most commonly halted in partial expiration.

This theory is not far-fetched. I doubt its acceptance. It is founded on primitive and commonplace observance. It can therefore anticipate no kindlier salutation than the cold eye and the curled lip of the test-tube doctor. I offer a few more facts, with proper fatalism, from a sense of duty. Not many people breathe properly. An even smaller number of neurotics have mastered this simple exercise. Anxiety cases breathe notoriously badly. They are incapable of the full deep movements of expiration. In particular, they do not inflate their bases. The best method of immediately reducing anxiety and initiating repose is the induction of relaxation by deep breathing. Adequate and rhythmic filling and emptying of the lungs induces an unmistakable sense of well-being in normals.

Respiration is grossly inadequate in mental patients. It is notoriously difficult to examine them by auscultation. Any general physician called in to examine mental patients will bear this out. I do not refer to difficulties met with in uncooperative patients. A large proportion of mental patients, particularly melancholics and other depressive subjects, have inadequate air entry at both bases. This relative or almost complete absence of sounds is not attributable to fluid, consolidation, etc.

Psychotic patients are remarkably immune to physical

disease. They have, however, a flair for pneumonia. This is one of the few distinctions of the psychotic vocation. It is a common mode of death among the general public. It is far more so among psychotics. In mental cases death from anything other than pneumonia and cardiovascular conditions is really rare. The terminal pneumonia of the normal patient is often attributable to diabetes, nephritis, bronchiectasis, carcinoma, etc. These causes operate minimally in mental patients. It does seem that the tendency to pneumonia shown by mental patients, whose immunity to physical illnesses is astounding, is due to the impoverishment of lung tissue, induced by insufficient oxygenation. This latter results from the emphysematous habitus produced originally by emotional factors.

Mental patients are very liable, even when not old, to pneumonia after fractures, particularly those involving the femur. The surgical technique of immobilisation and extension among the normal community is disastrous and lethal when applied to psychotics. They succumb to pneumonia. This may well be due to the vulnerability of lung tissue induced as has been explained.

We tend these days to deny such basic explanations. They lack the last benediction of minute detail. I have no disregard for finer points. My *vis-à-vis*, the objective scientist, is apt, in his clinical masquerades, to lose sight entirely of broader issues in causation. This is a deadlier sin. In medicine, as in other spheres of human activity, it is not advisable to miss the wood by too close devotion to the trees.

There is a strong familial tendency in emphysema. Perhaps it will be claimed one day for the category of vulnerable psyches. The question arises, are anxiety and a tendency to emphysema concomitant traits of a particular personality type? Alternatively, does the anxiety induce the posture? I cannot be certain. Both the anxiety and postural defects, such as those described in the head and neck, can be greatly relieved by relaxation methods. Such measures will not radically amend an established emphysema. The fact that

improvement occurs does not exclude emphysema from being a personality disease. After all, these subjects demonstrate a familial tendency for anxiety and strain to show their effects in particular systems, in this case the lungs and tissues functioning with them in respiration.

Emphysema is sometimes a sequel of asthma. It is reasonable to see how this condition induces the barrel-shaped chest of emphysema. Asthma involves fixation of the lungs and chest wall in respiration. But it is not realised that many asthmatics in their early teens show postural defects, principally thoracic kyphosis. This would seem to imply that here, at any rate, posture, anxiety and physical symptoms proceed concurrently. But many such cases can be cured, and their tendency to emphysema aborted, by rational psychotherapy, rest, relaxation and the correction of postural defect. But without correction of the latter we achieve nothing.

Chapter Four

Disease and Posture

We have seen that traits of structure are associated with particular diseases. We have seen, too, that emotional traits in the psyche induce physical disease. One day we may be able to see personality as a tripartite mechanism, in which stature, emotional traits and liability to physical and mental illness are indivisible and interallied.

Postural defects are often a bridge between anxious reactions and physical illness. The organic condition may be ushered in first by a period of functional disturbance. In several diseases we can trace four stages in development—strain and anxiety, postural defect, functional illness and organic disease.

In this chapter we will study posture in relation both to personality and disease.

Habit of body is closely associated with habit of mind. Muscular tension means taut emotions. Relaxed muscles accompany the balanced outlook. The fatalistic Eastern squats quietly, lost in the contemplation of his navel. The harassed Western, with his imperialist mission to subject races, strains like a greyhound on the leash.

We see this posture-personality association in different vocations. Study the outlines of a group of bishops. They are more than most of us secured from the drifting tides of conjecture by unshakable belief. They are suitably complacent. Their faces are smooth and relatively unscarred by the shifting winds of doubt. They have a comfortable girth. They feed on their own infallibility. It gives them a comfortable girth. This does not apply to all. It describes a type. That type is predominant. The well-insulated body reflects the upholstered soul.

The soldier has a certain attitude and carriage. It is

demanded by his instructors. The mind of the soldier is inflexible, determined and necessarily restricted. One does not decry his intellect. I describe its nature. He has of necessity to cling fiercely to a restricted quota of ideas. His aim is to endure and kill. His mental qualities are reflected in his posture, rigid, menacing and somewhat restricted in range. He swings his arms, but not too much. He swings them stiffly. Such movements epitomise his aims. He must kill to schedule, as part of a machine. He must not kill beyond the strategic requirements of his general. His blood-lust reaches crescendo. He must stop to consolidate.

But mental characteristics break through even the inelastic military pattern. The Germans goose-step. This menacing perversion of the human gait, ridiculous in peace, symbolises a nation habituated to hide their insecurity in bellicose trumpetings. It reflects also their marked herd instinct. Thousands of armed Huns goose-stepping down the streets raises the hair unpleasantly on one's scalp. One Hun goose-stepping is merely ridiculous, a loutish counterfeit of Mr. Chaplin's genius.

This connection between posture and personality is seen also in the sphere of disease. The melancholic is self-accusing. He believes that by living he taints the world. The world is right to hold him in contempt. He expresses this mental attitude in his posture. He sits with bowed head, bent back and sloping shoulders. He shrinks from the world. He tries to occupy the smallest space.

Dementia praecox is characterised by abnormal apathy and lack of drive. The patient becomes an emotionless vegetable. He is without intention. This is reflected in his tendency to stand motionless for hours till his chilled blue feet swell as they do in heart failure. The latter factor is absent. These patients are often in their early twenties. If we place their limbs in unusual positions with their arms held out or above their heads, they will maintain such abnormal positions for hours, often indeed till we restore them ourselves to a normal attitude. Mental apathy induces physical inertia. A fact of great interest is that some of these emotionless patients con-

sistently adopt attitudes similar to those assumed by practitioners of those Eastern cults which involve extreme fatalism and the abnegation of human impulses.

We see several physical diseases in which posture very obviously contributes to disease. These are bony conditions such as spondylitis. It is easy to understand that a previously rigid spine can contribute to arthritis. We are more concerned with the possible presence of a personality factor. There is a prodromal stage of increased tension in the lumbar muscles. Muscular rigidity expresses psychological tension. (It is a pity we give to the term 'highly-strung' a far too parochial meaning. We use it to imply a purely psychological state. We should apply it as we would to a violin. When the strings are too taut, it produces not harmony but strident discord.)

Psychological factors are admitted in rheumatic conditions as a whole. In spondylitis we find a particular mental attitude. The poker spine expresses the poker face.

These patients are neuropathic. They simmer inwardly. They are outwardly calm. Inwardly anxious they are always cool in a crisis. In the hidden turbulence of their souls they are eaten with self-mistrust. They display a serene and invulnerable self-confidence. They make fine administrators. They face life squarely—with a rigid back. They enjoy ordering the lives of others. It compensates for their inability to govern their own disquiet.

We find sciatica associated not only with bad posture but also with vulnerable personalities. Among many types of sciatica two varieties to me stand out most clearly. In the first type sciatica occurs young, often in the early twenties, in tall, excessively asthenic subjects. They are either elongated eunuchoid types, with diminished function of the sex glands, or cases of pituitary dysfunction. Considering the youth of these patients the posture is appalling. The lumbar hollow is excessively deep. Root pressure is a factor in producing symptoms. The patients are chronically anxious. They are usually anxiety hysterics. They are markedly hypochondriacal.

They are flabby individuals, who seem literally unable to support their height.

In the second class symptoms arise between 55 and 65. They occur in individuals of exceptionally good medical history. This kind of sciatica is a healthy man's disease. The patients are unusually fit, in the athletic sense. Their muscles are well developed. They have the degree of tone natural to men twenty years younger. In other words, their muscles are unnaturally tense for their age. These patients have a forward stoop of the shoulders and lumbar lordosis. They exhibit the posture of the muscle-bound athlete rather than that of the floppy individual of sedentary habit.

These patients have made a cult of health. They are pleasant, competent people, peculiarly boyish, emotionally immature. They are often batchelors, or childless. It seems almost as though they forcibly maintain the attributes of youth to compensate for lack of offspring. They cannot accept the facts of age, or the amendments of regime it necessitates. They try to cure their initial pains by excessive rounds of golf. They are obsessionals in relation to health and suffer for it. They demand that their body performs the impossible in the seventh decade. Their sciatica is often intractable because they cannot adjust to the fact that relaxation and not tonic activity is the proper métier of their muscular system.

There is no need to labour too much the association between these rheumatic conditions and postural defects. The latter express themselves through the activity of bones, joints and muscles. It is only natural that rheumatic conditions should be the consequence. Let us consider ailments where the postural relationship is not so obvious.

Several varieties of dyspepsia and constipation are associated with postural causes. These kinds of dyspepsia are usually associated with gastric hypertonicity. Duodenal ulcer may be present. Constipation is usually of the spastic variety. In these cases lumbar lordosis is commonly found. It involves increased tension in the lumbar muscles, particularly the erector spinæ. As a compensatory mechanism the abdominal

muscles are often atonic. Their supporting function is diminished. They do not produce a proper degree of visceral compression. In some cases there is an altered geography of the abdominal organs, such as is seen to an extreme degree in visceroptosis. This latter condition is associated with neuroses and functional diseases of the abdominal organs. It is quite fallacious to assume that such symptoms are due to the altered position of the organs. So often the neurotic symptoms and the postural defect predate the visceral symptoms.

It is very difficult to say whether postural deformity and abnormalities of visceral function are coequal signs of a vulnerable psyche or whether the former precedes the latter. The question can be answered in two ways, firstly by a study of the response to relaxation and correction of the postural deformity ; secondly, and perhaps more naturally, by a study of postural defects in children.

To induce relaxation the best technique is alternate stretching and relaxation of the joints of the leg, beginning at the ankle and working upwards. The lumbar, and then the thoracic, spine are stretched and relaxed. The arms are treated similarly, beginning at the shoulder joint. The neck is then stretched and relaxed. The same technique is then applied to the whole body, the patient initiating his stretching movements at the ankle and working upwards. He then consciously relaxes the whole body, beginning at the ankles.

There are, broadly speaking, two stages in relaxation. In the superficial stage the limbs feel listless and heavy. The feeling induced is analogous to that we feel in a hot bath after a hard day's exercise in the open. It is accompanied by a feeling of mental repose. The deep phase makes the body feel unnaturally light. Often the patient ceases to be aware of it as a concrete structure. He feels disembodied. He exists in a half-ethereal state.

There is no doubt that duodenal cases benefit considerably from relaxation and the correction of their postural defects. By such treatment it is even possible to abolish duodenal pains

recurring after operation. This technique has been practised with great success by Dr. William Brown.

The more the condition we treat is 'physical,' the more success we obtain by relaxation. Hypertonic stomachs with pyloric spasm, or even organic ulcer, respond better than neurotic cases where dyspeptic symptoms have a secondary place in the symptom complex. Some of these patients find it extremely difficult to pass from the superficial to the deep phase of relaxation. They experience a growing tension, an insupportable restlessness, and symptoms referable to the epigastrum. The latter, at first vague and poorly defined, are found later to include heartburn and the feelings of emptiness encountered in hypertonic stomach.

It is impossible, from study of the effects of relaxation, to say whether postural defect predates visceral and also anxiety symptoms. We will consider the question of postural defect in children.

Defects of posture are among the very first concrete signs of anxiety and exhaustion in children. They can be observed at the age of five. Lumbar lordosis is the commonest defect. Digestive symptoms involving the stomach and small intestine are seldom encountered. The upper reaches of the digestive tract do not commonly give rise to chronic disease symptoms in young children. In them the large intestine seems more prone to abnormality. A proportion of children with lumbar lordosis show constipation of a genuine spastic variety with the passage of hard scybala and even mucus after three days' intervals. This spastic constipation may alternate with diarrhoea. It is reasonable to see in such signs the first evidence of a tendency to such conditions as mucous colitis in later years.

It is even possible to see, in children below the age of ten, the first signs of the atonic abdomen which so often accompanies lumbar lordosis. Such atony, occurring so young, must, in all probability, conduce to dyspepsia and gastric neuroses in later life.

Enuresis is the condition, *par excellence*, where the coexistence of bad posture is most striking. The psychological

factor in enuresis has long attracted attention. The more obvious association of appalling posture has passed without comment. I have found marked lumbar lordosis in over eighty-five per cent. of these cases. The deformity is sometimes excessive, as though the child were artificially maintaining his abnormal position.

One striking factor emerges from the study of juvenile posture. To a large extent the region affected by the *primary* curvature determines the nature of the resulting disease. The subjects of lumbar lordosis develop enuresis and spastic constipation. Some are pre-rheumatic. An impressive number of children with thoracic kyphosis develop asthma, even before their teens. I recognise that lumbar lordosis and thoracic kyphosis are often found together. To a large extent one is compensatory for the other. In speaking of both these conditions I refer to the early and gross development of the deformity which is beyond doubt the primary postural defect.

I do not imply that all children with these deformities develop the physical diseases discussed.

I cannot explain why abnormal posture should induce, say, deficient bladder control. But I cannot think that these two conditions, occurring together with such amazing frequency, are mere fortuitous association. The three conditions I have mentioned—asthma, enuresis and spastic constipation—have this significant common factor—they are all associated with imbalance of the autonomic nervous system. Our nerves and viscera are all designed to function within the framework of a normal bodily structure. A motor car fails to function if its parts are not in correct alignment. The components of a building may consist of impeccable material. Nevertheless it collapses if, in the assembling of its components, it breaks the laws of architecture. Some such mechanical explanation may apply in these conditions. It may be that the autonomic system is peculiarly vulnerable to the adverse mechanics of faulty posture. The osteopaths have often considerable success in improving, by correction of posture, symptoms due to vegetative imbalance. Both they, and the orthopaedic

surgeons, regard the lumbar spine as a kind of vortex from which may radiate the innumerable waves of disease. These observations support this view.

These children with asthma, enuresis and spastic constipation have this in common. They are all coping with adverse psychological factors in their environment. They are the problem children of the guidance clinics. Some are illegitimate, or step-children. Others, at a pitifully early age, assume responsibility for smaller children. In some, adverse economic factors demand that their mothers go out to work. They are therefore cared for, often inadequately, by neighbours. Others grow up in houses ruined by parental friction. Many are of markedly neuropathic stock.

They are anxious children, but only rarely is the anxiety consciously felt or tacitly admitted. Their anxiety is symbolised in night terrors, frequency of micturition, often the physiological percursor of enuresis, purposeless over-activity and frightening dreams, etc. Other children respond differently to adverse environmental factors. They lie, they steal, a symbolic attempt to obtain nefariously what they have been denied, they take to arson, they appear in the juvenile courts. These are the problem children *par excellence*. (The young child is incapable of such mature reactions as psychoneurosis as it occurs in adults. His pure-culture psychological reaction is anti-social behaviour.) Only rarely do they exhibit the diseases we have mentioned. Their condition may be further contaminated by epileptic phenomena. As a rule they do not exhibit physical maladies. The physical diseases we have mentioned, and the more exclusively psychological reactions, seem alternative responses to adverse environmental factors. This is an evidence in childhood of a law I will enunciate later, that of the interchangeability of physical and psychological diseases.

There is no specific psychological problem in the environment and no pathognomonic psychological trait in the child associated with any of these physical diseases.

In these children the postural defect is present before the

full development of the physical diseases associated with it. Both postural defect and physical disease predate considerably the appearance of any conscious anxiety. This latter, as we have seen, is never a conspicuous feature. These illnesses of childhood tend to persist into adult life, or they are the precursors of matured forms of illness. It is therefore of the greatest interest, from the viewpoint of this book, that these diseases of childhood predispose strongly to a group of physical illnesses in adult life where markedly physical causation is not recognised. It is easy to recognise the psychological factors in the aetiology of physical disease in children of seven, when one is well acquainted with their home conditions. It is not so easy to obtain from grown-up patients the forgotten impressions of early childhood.

How does one treat conditions like asthma and enuresis in young children? To a large extent by a technique common to all. Rest is the sheet-anchor. These children are mentally and physically exhausted. Rest means lying as flat as possible. If children find it difficult to settle they are given mild sedatives like Adalin. Often only morning sessions at school are permitted. The children are also taught muscular relaxation. Their posture is corrected. An attempt should be made to correct adverse psychological factors. The approach should not be psycho-analytic. It should consist merely in warning nagging or fussing parents of the pernicious effects of their habits, etc.

With children suffering from asthma, enuresis, etc., I have had negligible success from treatment with gland extracts, stabilisers of the autonomic nervous system, or from psychotherapy applied exclusively to the child. These conditions do not lend themselves to so-called specific treatments. It is particularly foolish to treat asthmatic children with antispasmodic drugs without correcting their postural deformities and without providing rest.

I do not apologise for applying the same treatment in different conditions. It is a logical consequence of the fact that so much is common in their aetiology. After all, the fundamental common denominator of all these conditions is

an exhausted psyche. The harmony of mind and body are broken. The expression of this disharmony is diverse. But where we see, even dimly, the outlines of fundamental disharmonies, it is more important to treat them than to deal with the mere symptom complexes to which they give rise. Such views are anathema to many doctors. We live by persuading the public we possess specifics. These are so numerous and efficacious that it is surprising disease continues to resist the barrage of such therapy. But we remain morbid because disease processes have taken the precaution of embedding themselves in the personality.

The use of such specifics may not do appreciable harm in adults. They are positively dangerous in children, not so much of themselves, but because they minimise the more crying necessities of rest, relaxation and posture correction. These are the measures necessary to dislodge disease from the psyche before its entrenchments are too deeply made. At this stage it is more important to correct a general bias to morbidity than to treat the signs of its local manifestations through the bladder or lungs.

We have seen that bad posture may be the first pathological response to a bad environment. Is then the shape of the individual the primary clue to his personality? Do flat feet necessarily imply a flat soul? It is too early yet to launch forth in presumptuous assertions. But it does seem as though stature is an index, if not a precursor, of temperament and liability to disease. I well remember a highly-strung girl in her twenties, with various somatic symptoms of anxiety and a marked kyphosis. I warned her, not wholly seriously, that if she did not amend her ways—and her posture—she would develop asthma. I had no knowledge of her family history. I found later it was drenched with asthma.

Herewith an example of divergent posture and personality in a brother and sister. The brother is long and asthenic. At twenty he has marked lumbar lordosis, an anterior paunch and drooping shoulders. He is hypochondriacal. He lacks drive. He droops mentally and physically.

His sister, two years older, is small and compact with her shoulders drawn back so martially that her teres major are too conspicuous for evening-dress. She moves at speed. He scarcely moves at all. She is very level-headed and competent. She has a flair for administration. She has bouts of depression which she minimises. " Anybody can get neurotic if they let themselves." Her attitude is diametrically opposite to her brother's. They are fond of each other. This has always been so. She has a proprietary affection for him. In childhood he played with dolls while she climbed trees. At the age of twenty he sits on her knee in the drawing-room. He suffers no noticeable embarrassment.

This example has another interesting feature. As a child the sister was developing a forward stoop. She amended her posture and her character. Possibly she altered her personality. (The academic psychologists imply that personality is unalterable. It can be moulded a little before puberty.) I sometimes wonder what will be the subsequent history of this pair. Hers, I feel, will be less favourable. She has assumed a part for which she was inadequately cast. The battle is not always to the strong.

While there is a clear association between anxiety and abnormal posture, I do not think it very likely that such structural changes are encompassed in one generation. Certainly the spine bends in the bad environment. One can both correct the bend and abort the diseases arising from it, provided the child is treated sufficiently early. But these posture defects are probably also the child's first confession of his neuropathic heredity. They are increasing most alarmingly.

I have here, and elsewhere, described the mental attributes of different persons and different human types. I have not used the nomenclature of modern psychology. Medicine is drugged and bemused with the sickening habit of excessive naming. A craze for names is a bar to knowledge. It is no distinction to anaesthetise one's audience with a cloud of words. It is an unfortunate habit. Children and psychiatrists display it.

I have indicated that certain broad mental traits are found in different varieties of personality. I have not implied that the latter, when prone to disease of any kind, has each its specific neurotic reaction. We hear often that new types of neurosis will be revealed by newer classifications of psychopathology. It is believed, by a curious and laughable paradox, that medical development is expressed in the discovery of new diseases. Many consider that the medicine of the future will offer us the dubious benefit of double the number of diseases we study now. I do not think so. The next half-century will not establish the same amount of pathological data as the last. It will concern itself with the different interpretation of data at present available. We will study more the physical associations of mental traits and the kind of stature observed with these. The number of types so outlined will be less than we imagine.

In this chapter there is one lesson above all I would like appreciated, that social factors in childhood are so potent that they induce the beginnings of physical disease and even alter the patients' configuration. Such reactions are observed in submerged sections of the community. We see them, largely developed too, in the children of respectable artisans, who desire for their offspring a better chance than they have had themselves. Their children must make good. They must get to the top of the tree. They are crucified on the cross of state scholarships. They are inculcated with false aims in the art of living. We will investigate these latter problems at a later stage.

Chapter Five

Sex Malfunction and Physical Disease

It is an axiom of psychology that anxiety arises from interference with the operation of primary instincts. The sex instinct is most liable to frustration in our social system. We are hedged in by taboos. Our lives are long catalogues of inhibition. I do not propose to deal with the virtues and vices and origins of such a system. I will not enumerate the evidence for our sexual frustration as compared with more primitive communities. Nor will I deal with the multitudinous psychological abnormalities which arise from these causes. They are as the sands of the sea. They are the main theme of most psychological text-books. I will deal only with the relation between the sex instinct and physical disease.

In rheumatic conditions, particularly in women, sex frustration plays a large part. This applies particularly in the case of fibrositis and the periarticular forms of rheumatism (rheumatoid arthritis). I know of one rheumatic specialist who invariably asked his female patients how often they had intercourse, and how satisfactorily. The part played by sex frustration in inducing rheumatism is not difficult to follow. Interference with the sex instinct is probably, perhaps almost certainly, the commonest cause of anxiety. Chronic anxiety increases muscular tension. Rheumatic conditions of muscles, fasciae and periarticular tissues are predisposed to by such pre-existing tension. (Since the outbreak of war I have observed a greatly increased incidence of fibrositis in the early summer. This I ascribe not only to war conditions in general, but to the increasing strain of movement in the black-out. These summer cases of fibrositis include a large group of patients who have to drive motor vehicles after dark.)

Fibrillary tremors are observed in muscles adjacent to joints

in early cases of rheumatoid arthritis. Careful questioning will often elicit the presence of such tremors before the onset of joint symptoms. Satisfactory coitus is one of the most efficient mechanisms for relaxing muscles. The feeling of repose after coitus is one of its chief pleasures. Denied this antidote to muscular tension the female patient, where other predisposing factors are present, is liable to attacks of rheumatism.

I am considering sex frustration and rheumatism particularly in women for the simple reason that the overwhelming proportion of cases in which I was able to trace the connection with certainty were females. Similar factors may operate in a sizeable proportion of male cases. I have stressed sufficiently that, given the existence of strain, glandular and personality traits determine the nature of disease. It may be held that in males *sui generis* the factor of sexual frustration seeks out different flaws in the masculine make-up.

There are some facts worth adducing about the type of rheumatic female in whom sex factors help to produce disease. It is a disease of the woman who has had partial satisfaction or some degree of sexual stimulation. It affects women married to men inadequate to their sexual needs. It occurs also in women who are themselves repressed sexually. It also attacks those existing in a state of chronic sexual tension without release of any kind. It afflicts the middle-aged woman in the throes of a long engagement. It is found in married women where estrangement, due to domestic friction, has led to cessation or diminution in coitus.

Rheumatic women tend to produce symptoms at, or just before or after, the menopause. These cases are no exception. The signs of the disease thus appear when the sexual strain is being lessened. This is analogous to what happens in the cases of summer fibrositis we just quoted. These latter produce their symptoms when the black-out is no longer a plague to the car or lorry driver.

Of course it is possible in these rheumatic cases that decline in endocrine function acts as a precipitant. This, too, is possible in a neurosis. Increased endocrine activity may be

well supported in a period of stress. Indeed some forms of endocrine activity are specifically ordained for stimulation in periods of emergency. The secretion of adrenaline is a mechanism ordained for offence or flight, and evoked by self-preservative intentions. Too little attention has been paid to the decline of endocrine function, as a cause of symptoms, after periods of stress experience by the psyche.

A fact of interest is that night terrors, which notoriously afflict the rheumatic child, have often a marked sexual symbolism when interpreted in terms of the Freudian hypothesis.

In a previous chapter we tried to allocate different varieties of glandular dysfunction to the different strain diseases. I indicated that no gland could be especially indicted in the case of rheumatism. We have strong hints that dysfunction of the gonads is important in rheumatic conditions. It is not yet time to dogmatise. If we study the broader question of the sex glands in relation to muscular tension we are able to obtain the most striking data.

In treating melancholia with extracts of male hormone (testosterone) I have observed the incidence of tremors on progressively increasing the dosage. These tremors affected particularly the head and the upper extremities. At first I did not attach much significance to these findings. Tremors, vague, fleeting and difficult to classify, occur often in melancholia. It is also possible to observe in agitated melancholics a digital tremor, analogous but slightly coarser, to that which occurs in hyperthyroidism. But on increasing the dosage of testosterone I found that all the characteristic tremors occurring in the Parkinson syndrome and disease can be induced in these patients. The most characteristic findings are nodding spasm of the head, pronation and supination tremor of the arms and pill-rolling movements of the thumb and first finger. On reducing the dosage the tremors cease. I have encountered this phenomenon in patients of both sexes. It is, however, most marked in males, in cases where sexual restriction occurred in virtue of long residence in hospital and in types naturally inhibited as to sexual function.

As both Parkinson's syndrome and disease are associated not only with tremors, but also with spasticity and rigidity of muscles, the relation between activity of the gonads and muscular tension would seem established.

There is also another fascinating aspect to be considered. The tenseness and spasticity present both in Parkinsonism and over-dosage with testosterone are signs of disturbed activity of the corpus striatum and thalamus. This area of the brain is concerned also with the expression of the emotions. The action of testosterone in disturbing the function of the thalamus and corpus striatum is a kind of physical emblem of the Freudian theory of sex function in the genesis of emotional disorders.

Do the male gonads play a part in the induction of spastic conditions as in Parkinson's disease? Will we later regard this organic paralysis as contributed to by sexual abnormality? Is rheumatism in the female a disease where there is deficiency of male hormone or relative over-activity of female hormone? Only the future can show. I aim no more than to indicate future lines of approach to the study of rheumatism and Parkinsonism and to consideration of the whole problem of muscular function in relation to the activity of the sex glands. In both rheumatism and paralysis agitans strain, worry and heredity are important aetiological factors. These diseases are specifically associated with dysfunction of the sex glands. I could produce more evidence for my conclusions. This is a book written in the hope of encouraging a new outlook in medicine. My chapters cannot therefore be written in the pattern of articles for medical journals.

The new aspect of rheumatism and Parkinsonism throws new light on the aetiology of chorea. This disease is established beyond all reasonable doubt as a rheumatic condition. It is the rheumatic condition *par excellence* of puberty and the years preceding it. We can therefore regard chorea as an interim response between rheumatism and paralysis agitans. Now rheumatism is from many points of view an infective condition. Paralysis agitans is degenerative. Chorea has to

some extent the properties of each. It shows other signs of rheumatic infection, *e.g.* carditis. It displays athetoid movements originating in the same area as that affected by paralysis agitans. Recognition of dysfunction of the gonads provides us with a common pathological basis for each condition.

I am not afflicted with obsessions about endocrinology. I do not see it everywhere. It is not necessary for me to manufacture all-embracing theories in which malfunction of the ductless glands is discovered in every disease. What I have said about endocrine dyscrasia does not invalidate current beliefs which stress the importance of infection, chill, fatigue, etc. Similarly I do not question the current aetiological theories which apply to paralysis agitans. Such aetiological factors deal with exciting and predisposing causes on a plane accessible to investigation from the viewpoint of medicine as practised in the present. My theory delves farther back into the dark crevices of predisposition. I am viewing these cases from the standpoint of one studying personalities fundamentally prone to particular kinds of malady. And within the limits of our present knowledge the relative functioning of the endocrine glands determines the nature of the psyche.

The sex glands play a part in arterio-sclerosis, the commonest of all strain diseases. Testosterone has an excellent effect in certain of its manifestations. These are chiefly local circulatory disturbances, such as peripheral gangrene and prostatic enlargement in subjects with arterial decay. A large number of these latter have an unsatisfactory sexual history. There are two sub-groups. In the first sexual activity has been abortive. It includes the adult masturbators and practitioners of sexual activity short of complete coitus, *e.g.* coitus interruptus. The second group consists of the sexual athletes. Their prowess is expressed numerically. No individual act of coitus satisfies. They seek perfection in numbers. They pursue the simple ideal of quantity before quality.

Both groups respond well to testosterone. I cannot explain the actual mechanism of recovery. I can only testify to its occurrence.

Cancer is our greatest medical problem. It shows a rising incidence in the last few decades. Theories arraigning infection, irritation and embryological factors as the main causative agents afford only inadequate explanations.

Cancer of the breast is a disease which arises often as a sequel to chronic mastitis. This latter condition occurs often in women in the thirties or even earlier. The increased breast tension is associated with thwarted sexuality, desire for children, or both. Many such patients are unmarried. Some observers question the derivation of breast cancer from chronic mastitis in any considerable number of patients. The more specialised the observer the more he denies the connection between mastitis and malignancy. On the other hand, general practitioners insist on the relationship. This is a fact of significance. General practitioners are more prone to regard patients as a whole. The surgical specialist concentrates too exclusively on the breast. Those exclusively devoted to cancer research suffer from the disabilities inseparable to ultra-specialisation. They are liable to regard the disease they study as a rigidly closed circuit. They are seeking always a hard-and-fast connection between specific cause, specific symptoms and specific cure. The personality of the patient concerns them little. It is an unwelcome obtrusion into the pure air of mathematical exactitude.

I mention the viewpoints of different kinds of investigators because I consider that personality traits play an important part in cancer of the breast. We must be careful therefore to avoid offering too much homage to specialists unconcerned with the personality factor.

Chronic mastitis occurs in women with thwarted but still potent maternal and sexual instincts. It often attacks women of masculine configuration not amounting to virilism. These women have often a partly masculine psychology. They are tough, ruthless administrators. They are often psychologically homosexual. They retain the instinctive impulses of womanhood. They show the outward manifestations of manhood. They are tough specimens. This type is prone to carcinoma.

It is possible to connect these clinical observations with some of the more reputable theories of cancer formation. The essential feature of tumour foundation is the development of new cells involving either an excess of those normally present or a production of primitive or abnormal forms. This process has analogies with reproduction. Loeb has pointed out that in some animals the eggs may be induced to parthenogenic development by chemical action. Walker, Farmer and Moore believe that adjacent cells show half the original number of chromosomes. As in the fertilisation of the ovum such conjugation encourages a further impulse to growth. Rotter sees the origins of cancer in the embryonic wanderings of primitive sex cells. These may lodge in primordial tissues other than those destined to be sex glands.

My observations on the make-up of these patients convince me of the existence in them of unsatisfied sexual and maternal longings. It is peculiar and fascinating that some of the theories reflect, in the sphere of pathology, these primitive urges.

There is increasing evidence that oestradiol, the active principle of the female hormone, has cancer-inducing properties. Testosterone, the male principle, has the opposite effect. Is it possible that in this group discussed restriction of sex activity has tended to carcinoma? This tentative suggestion is too fundamental and generalised to attract the attention of the test-tube interpreters of human nature. It is too crude to merit reflection by those skilled dissectors of the human body, who examine and operate once, and count as cures all those cases they never see again.

My observations on the derivation in certain types of women of breast carcinomas in chronic mastitis is borne out by experienced nurses. We should always respect the views of a good nurse in such questions as these. The nurse suffers less than the doctor from preconceived notions. She is unlearned in pathology. Her observations are less fettered. She reports crude symptoms, like pain, crude signs like fever. Yet if she restricts herself rigidly to such observations she fails in

her duty. She is therefore impelled to offer us her total impression of her patients. At her best she is therefore a student of personality. It is an anachronism that our handmaidens are more devoted to essentials than we are. I hope they derive comfort from the thought that it is better to be a handmaid in the House of the Lord than a ruler in the tents of the wicked.

I abstain from discussing carcinomata in other localities simply because my data as to personality traits is inadequate in carcinomata other than in the female breast. There is at least one other cancer where personality factors are predominant. This is the cancer, supervening on fibroid formation, in the virgin uterus of unmarried women. Here often the fibroid, and the subsequent cancer, express an inhibited desire to reproduce.

I have dealt only with the physical diseases attributable to sex dysfunction. I will discuss briefly psychotic conditions whose aetiology lies in the physical aspects of sex function. My justification for doing so is this. I am dealing with menopausal psychoses in women. These are too often attributed to purely psychological causes. The symptoms are considered as due to faulty psychological habits. The menopause is believed to induce a further predominantly psychological reaction: It is an announcement that one channel of expression of the female psyche is closing down. There is evidence that the cause of these symptoms is not so exclusively psychological.

The most striking results I have observed in the use of sex hormones have been obtained in treating women with menopausal psychoses by testosterone. (Formerly I treated these cases with oestradiol, the female hormone. Some responded well. The results obtained with oestradiol have been in no sense comparable with those obtained with testosterone. The hormone is administered by inunction. The skin of the abdomen is the area employed.)

I am not referring to the treatment of those depressive states, with or without somatic symptoms, which are commonly associated with the menopause. I am dealing with full-

blooded psychoses. I have obtained cures in involutional melancholia and the depressed phase of the manic-depressive psychosis occurring at the menopause, by treatment with testosterone. It is generally acknowledged that these two conditions are grave, intractable and tending to chronicity. Their cure is a matter of years or months. Using testosterone I have been able to return menopausal melancholics to an independent and responsible existence in less than two months. I have also treated by this method paranoid and confusional reactions profoundly psychotic in degree, associated with the menopause. I know of no other method capable of clearing up conditions, usually regarded as of such grave prognosis, in so short a time.

A striking fact emerges in relation to these grave menopausal conditions in women. Those which respond most dramatically to male hormone are women in whom sexual activity has been nil, or minimal. I hesitate to associate myself with the all-embracing theory that psychological activities in women are due to lack of sexual stimulation by the male. But it is quite unmistakable that one sees the best results with testosterone in women deprived of intercourse. It is possible that coitus produces in the female some beneficial metabolite resembling testosterone. I have treated women with menopausal and other depressive psychoses, with oestradiol, mixtures of oestradiol and testosterone, and finally with testosterone alone. For this purpose of alleviating psychological symptoms the two hormones are not mutually antagonistic. The male hormone acts as a kind of dominant. It is depressing to think that the doctrine of male superiority is reflected even in the gonads, but certainly cases responding well to oestradiol do even better with testosterone.

For the benefit of those who have experimented assiduously, and with little result, with male and female hormones in these conditions, and have grown naturally and justifiably suspicious of their beneficial properties, I would make two points. Firstly, only the newer products like Ovocyclin and Progynon (female hormone) and the two male equivalents, Perandren

and Testoviron, are efficacious. (I do not imply that these are the only new products of undoubted usefulness. They are merely those I have used extensively.) Secondly, the hormone must be administered cutaneously by inunction.

The foregoing facts do stress the fact that sexual frustration is a potent cause of psychosis. Since the outlets for sexual activity depend so largely on current ethics, the relation is obvious between the maladies discussed and the prevailing social system. It should be emphasised here, too, that sexual abstinence has been cited regularly and for years as a cause of psychological disorder in males. Its function in inducing pathological symptoms in women has been less emphasised. In my experience the effects of abstinence in women are far more profound. Perhaps the fact that they are observed at a longer latent period accounts to some extent for non-recognition of this fact. We can all trace in a large number of cases the connection between anxiety and obsessional neuroses in young males and interference with the natural operation of the sexual instinct. We do not appreciate sufficiently that here, once again, the woman pays. But she suffers later. Anxiety neurosis in young men, melancholia in middle-aged women, are often attributable to the same cause.

When one considers also that I have cited diseases at present considered physical, in which sexual maladjustments play an important part, the reader will appreciate the enormous influence of the social order in inducing disease.

In conclusion, it should be emphasised that there are other diseases regarded as physical in that they are mainly the province of the general physician, in which treatment by the male hormone has a beneficial effect. (I mention the male hormone particularly because, as I have pointed out, I regard it as generally dominant, and not antagonistic to the female product.) Hyperthyroidism and diabetes respond favourably to testosterone. The association between hyperthyroidism and states of chronic anxiety and stress is generally admitted. We have hinted at the operation of these factors in diabetes. Chronic anxiety results most commonly from interference with

the operation of a primary instinct. The most common instinct restricted by our present civilisation is that of sex.

To frustrate normal sex activity is to deny to the personality an opportunity for complete repose. Modern existence encourages too much the pursuit of vague, nebulous and unattainable things. It stresses too little the satisfaction of harmless, immediate aims. This is one of the most important causes of morbidity in our social system. We must defer its further investigation.

Book Two

The Neuropathic Nature of Disease

Chapter Six

Disease as a Social Variable

In this chapter we will deal with the varying incidence of different diseases at different stages in our social history. This question requires study in order that we may observe the effect of the social system on the form in which disease manifests itself. In addition, such a study introduces the factor of permissibility in disease. To a large extent we contract the illnesses allowed us.

We are no longer susceptible to rare and deadly visitants like plague and cholera. They are dying out. This is ascribed solely to public health measures. This is an evasion. The sanitarians are the first people to admit that infectious diseases spread enormously among those who have never acquired, or who have lost, immunity to such diseases. Measles, on its first appearance in the Pacific Islands, was a ubiquitous and lethal scourge. Pandemics occur also in communities where immunity has been lost.

Now in Western Europe the last great outbreak of plague was centuries ago. We have had no subsequent opportunity to acquire immunity to plague. I doubt if even our most enthusiastic bacteriologists would claim that we possess an immunity to plague transmitted by our ancestors from 1665, or possibly the Black Death accounts for our present resistance. We have had no major outbreaks of smallpox for decades. The public are therefore lax about vaccination. It is reasonable to suppose that we are losing much of our immunity to smallpox. Now plague, cholera and smallpox are highly contagious. One or two cases can initiate vast pandemics. Such cases have for years appeared regularly at European ports. They will continue to do so. There are no pandemics. The public health authorities assert that this is due to hygienic measures like immediate isolation. How do you isolate cases of such infections during an incubation period when many

of these conditions are definitely infectious? Do the captains of cargo boats automatically and immediately isolate persons with indefinable malaise as possible cases of plague?

Why is the incidence of plague among white men, where the disease is endemic, so much less than among the native population? Can we rely on the explanation that the white man is so conspicuously spared infection solely because his house is more hygienic? *And the white man is non-immune.* The black man has had admirable opportunities to acquire immunity.

The same argument applies in many tropical diseases. Where whole native communities are drenched with trypanosome fever the white man largely escapes. This disease is communicated by the tsetse fly. White communities have better protective measures against it, but it is a little ludicrous to credit the European with magical powers in dodging insects. After all, the bite of one will infect. The European escapes because civilisation has made him a different kind of man. He has different weaknesses and different strong points. We must look for an explanation analogous to that which accounts for the fact that in mental hospitals which for years have had mass infections with asylum dysentery the attendants always escape. There the reason is the same. The nurses and attendants are a different variety of the human race. They are working among patients whose careless and degraded habits naturally encourage the spread of infection. They do not acquire the disease. The only case of asylum dysentery I ever saw in an attendant was in a profoundly psychopathic individual. During his dysentery he showed psychotic symptoms.

Western man is becoming far less prone to these catastrophic pandemic infections. Probably the contention applies equally to some chronic diseases like tuberculosis. The rapid decline in the incidence of this scourge is not to be ascribed solely to the increase in hygienic measures. It should not be forgotten that hygiene is largely a personal matter. One can preach ventilation and put people in houses with better windows. That does not imply that they will keep them open.

One can tell tuberculous patients they must not spit in anything but suitable receptacles. They do not necessarily do so. The tuberculous are peculiarly careless about measures directed to the control of the disease in themselves and others.

Western man's relative resistance to infections is due to his altered nature. We should not be duped by the flatulent optimism of the public health authorities. They are concerned primarily with infectious diseases which admittedly are diminishing. We are concerned with the rising toll of the chronic constitutional diseases, including physical maladies like peptic ulcer, diabetes, cancer, rheumatism, etc., and the diverse and paralysing neuroses and psychoses. These are undoubtedly soaring.

Certainly less of us die in these catastrophic pandemics. More of us survive the hazards of infancy. The rest of us may even live longer. But to argue from this that we are healthier is fallacious. The social health of a community, seen especially from the standpoint of its safe existence with barbarism threatening it, is revealed by the health of the living, and not by the number of those escaping death. We might as well argue that a country is unhealthy because it loses two million men in war. We are polluted with neurosis. To a large extent neurosis does not kill. But it bequeaths to the next generation an impoverished vitality which will not merely express itself in neuroses or psychoses, but which will give rise sooner or later, and mostly sooner, to rheumatism, peptic ulcer, etc. Consider, too, that in our humane democracy so much of medicine is devoted to the amelioration of symptoms in chronic diseases, so that the chronically enfeebled, stricken by diseases for which there is no absolute cure, like diabetes and rheumatism, are kept alive by such substitution therapy as insulin in the case of one, and by the most expensive and elaborate techniques in the case of the other. The vitality of our stock is becoming impoverished. We are using our mental energies not to build anew, but to make life supportable for its lame ducks. It is no exaggeration to say that so far as doctors are concerned, the bulk of our constructive energies are claimed by

these lame ducks and that our attention to them increases each year. This is a queer conception of the healthy community.

Permissibility in Disease

The great development of preventive medicine in the accepted meaning of the term has resulted in the disease tendency expressing itself more in non-infective physical conditions and still more graphically in the psycho-pathological sphere.

The increase in the incidence of psycho-neurotic illness is to be ascribed largely to the following factors :

Fear, general or particularised, indecision and doubt were formerly regarded with opprobium. It was no one's concern whether or not they originated in neurosis. With the coming of the age of psychology the fears and doubts of neurosis have received sympathetic understanding. This has so far occurred chiefly in the class which can afford to pay three guineas a time for sympathy and understanding. Psycho-neurosis has certainly become a permissible disease in the bourgeoisie and the upper classes. Formerly a moral backsliding it was, for a time, almost a social asset. The clichés of the psycho-analyst were tossed backward and forward as conversational shuttlecocks, in the boudoirs and drawing-rooms of idle women. " My dear, my analyst indicts my uncle." Human beings are highly suggestible. If they are encouraged to produce symptoms they will always do so. Were we not all trained to avoid leading questions in taking histories ?

The last war gave a great impetus to psycho-analytic investigation. It is ironic that this war may administer its *coup de grâce.* Many people have found in social service a better therapeutic than those interminable sessions spent in the world of dreams and the lavish recording of infantile peccadilloes.

Understanding and sympathy for neurotics is also extended to those belonging to the lower classes. Life being what it is the rate of percolation has been slower. Nevertheless we do have the Workmen's Compensation Act. By this feat of enlightened legislation we have increased the incidence of neurosis in a class not prone to it. But here again the factor

of permissibility becomes apparent. Employers are intolerant of the full-blown neurotic, whose main symptoms are expressed in purely psychological spheres. It is no good telling the average employer that you are frightened to go in a lift, particularly when it takes you down a pit, that you are chronically anxious, that you can't make up your mind, or even that you are impotent. The consequence is that psycho-neurosis encountered in men working in pits or factories expresses itself through symptoms which appear physical but which are nevertheless psychological in origin. We thus encounter tremors and paralyses, without organic basis, rather than phobias, doubts and states of anxiety. We also encounter limps, marked peculiarities of gait and inability to move joints beyond a certain degree.

The factor of permissibility in men engaged in industry is shown by the very frequent association between neurosis and accident. The workman is seeking unconsciously to find a physical cause for his physical symptoms. (I am most emphatically not dealing with malingerers.) An accident is the most dramatic physical cause available. I am from time to time asked to report and give evidence in cases under the Workmen's Compensation Act. The point at issue is always traumatic neurasthenia or hysteria. I have not yet been asked to see a case of anxiety or obsessional neurosis attributable to conditions of industry.

Another factor operating in producing the predominance of quasi-physical symptoms in neurotic workmen is the fact that the company will always produce a surgeon as expert witness, if the case is one involving compensation and liable to come to court. While I do not wish to malign the conduct of all surgeons so engaged, the attitude of many in this particular matter is quite deplorable. They look for signs of physical damage and, having found none, imply that the patient is 'swinging the lead.' If they go so far as to diagnose traumatic neurasthenia or hysteria, in giving evidence they imply that this is merely the Sunday name for malingering.

But one of the most important factors in initiating neurotic

or functional diseases is the vast increase in laboratory technique in the last twenty years. We have now reached a condition in medicine where in many diseases diagnosis rests more on laboratory investigations than clinical methods. Who would nowadays diagnose pernicious anaemia without a blood count? For the indisputable diagnosis of tuberculosis we rely on X-rays and sputum tests. This means that doubtful cases of many physical conditions are diagnosed far earlier than they used to be. What is more important is that negative findings are communicated to the sick far more quickly than formerly. And negative findings indicating the absence of organic disease do not terminate the symptoms of disease. The effect of negative X-ray findings in appreciably ameliorating the symptoms of functional or neurotic disease is negligible. A decade or so ago it was fondly imagined that a negative radiograph would of itself cure a cancerphobia. I have never once met a real neurotic who was cured by a negative X-ray picture. I can understand a man with gastric symptoms and with a family history of carcinoma of the stomach being appreciably relieved by a negative radiograph. But such a set of circumstances cannot be called a cancerphobia. It is best described as a reasonable dread.

The factor of permissibility is seen also not merely in the ordinary routine of modern existence but in conditions of crisis. In the last war there was a considerable incidence of shell-shock in the British Army. This was induced in part by war conditions and partly by the enthusiasm of doctors newly infiltrated with the teachings of psychiatry. On the other hand, shell-shock was negligible in the French Army because it was not recognised as a clinical entity and because there was no special provision made for it. In England, on the other hand, there were several hospitals dealing exclusively with shell-shock conditions.

The social stratum of the individual helps to determine the nature of his reaction in war as well as peace. In the war of 1914 the officer class were chiefly affected with anxiety neurosis or anxiety states complicated by somatic symptoms,

perhaps chiefly referrable to the gastro-intestinal tract. The rank and file, on the other hand, showed a conspicuous contamination with hysterical reactions, involving chiefly states of paralysis and anaesthesia without organic lesion.

The Interchangeability of Disease

Mental, physical and nervous disease are interchangeable. They are alternative expressions of a general neuropathic tendency. We will discuss this again in considering heredity. The neuropathic tendency reveals itself in either physical or mental spheres according to several factors already discussed or to be dealt with later, *e.g.* endocrine flaws, innate tendencies to vegetative imbalance, or prevailing opinions in the social or economic sphere. In the case of physical disease we are dealing chiefly with the chronic constitutional or strain diseases. Yet this concept of interchangeability may well apply in the case of conditions still regarded as primarily infective, *e.g.* pneumonia. The data is at present inconclusive but very suggestive. All doctors have seen periods of psychological conflict resolved by an acute infection (*e.g.* pneumonia, infection with septic organisms, etc.) where the subsequent psychological benefit to the individual was unmistakable. A sharp infection, particularly where, as in pneumonia, there is liability to recurrence, is, even though unconsciously uttered, as good an argument as possible for the amendment of one's environment to ensure a lesser incidence of strain.

Perhaps the best example of this interchangeability of disease is to be obtained from the study of the medical history of mental patients. These latter are still liable to some infections, like typhoid, dysentery and influenza. Liability to the first two is diminishing. Influenza is so ubiquitous a scourge that no particular section of the community is immune. Other common infections are negligible. During residence in a mental hospital averaging seventeen hundred to eighteen hundred patients, in the course of four years I saw no case of measles, scarlet fever or diphtheria. The same applies to

infectious conditions other than the specific fevers. In four years there was no case of appendicitis.

The vast majority of the patients in this institution were fifty years old and upwards. They were therefore at that age at which cancer appears. I can remember only two cases of cancer. One, a woman in the middle fifties, had had a uterine carcinoma ten years before. It was removed by hysterectomy. She was hale and hearty with no signs of recurrence. In the other a woman sustained what at first appeared to be a spontaneous fracture of the tibia. This rapidly disclosed itself as a fracture caused by extensive infiltration of bone with secondary despoits of carcinoma from a breast tumour removed by operation some years before. This woman had not the slightest signs of cachexia.

The above figures are not explained by mistaken diagnosis. Post-mortems were performed on practically all who died, except for a very few where the relatives objected for religious reasons.

So far as the chronic constitutional diseases were concerned, gastric and duodenal ulceration were non-existent. Dyspepsia of any kind is negligible in mental patients, when one considers its vast incidence among the normal community. A tiny fraction of senile mental patients develop acute intestinal obstruction. A larger number show symptoms suggestive of obstruction which, if left alone, disappear in twenty-four hours or a little longer. In mental work, wise heads counsel watchfulness and non-interference in the type of case which, in normal practice, would be treated surgically with the greatest speed.

Rheumatic fever is scarcely ever encountered in mental hospitals. Cardiac complications of rheumatism are not common. Rheumatic conditions do occur. These are osteo-arthritic rather than rheumatoid in nature. They occur in patients of middle-age or over. Thyrotoxicosis occurs but not to the same extent as in the normal community. It is seldom extreme. Its graver complications, *e.g.* auricular fibrillation, are relatively benign.

Diabetes is more common, though of inconsiderable

development, and its incidence is far less so than was formerly imagined. Glycosuria *is* common. It is almost invariable in melancholia and in delusional states when accompanied by agitation. But many cases which appear to be genuine examples of diabetes mellitus in virtue of the raised blood sugar, etc., are in actual fact to be ascribed to chronic interstitial pancreatis, due to arterio-sclerosis. But though diabetes mellitus is less common in institutions than it was thought to be in the days when the diagnosis of the disease rested mainly in the examination of the urine, when estimated along with the allied conditions of chronic interstitial pancreatitis and glycosuria due to psychotic agitation, it is clear that conditions involving the inability of the pancreas to control sugar metabolism are of fairly frequent occurrence in mental cases.

The above observation is particularly interesting in view of my previous suggestion that diabetes is a disease where a strong psychological factor operates, and that it is reasonable to suppose this to be so when we consider that one of the effects of fear is to raise the blood sugar. It should be noted, too, that psycho-neurotic anxiety and agitation of sufficient degree is accompanied by glycosuria.

Acute and grave complications of diabetes, such as hypoglycaemia, are rare in mental patients.

Wounds in epileptics are, of course, of frequent occurrence. In the institution referred to above I supervised, in a period of four years, an average of between eighty and one hundred epileptics. These unfortunates, despite the most careful supervision, frequently sustained the ugliest injuries, particularly scalp wounds. These injuries were usually contaminated from falls in the airing court or when working on the farm. They never went septic. When I first encountered injuries in epileptic patients I religiously sewed these up in the orthodox manner. It was then pointed out to me that in any case they healed by first intention. So they did. Sometimes one encounters considerable scarring in epileptics. This is not to be ascribed to wound infection. In some cases it is due to a tendency to keloid formation. In by far the majority of cases

it is due to the constant reopening of the same wound by the patient repeatedly falling in fits.

In mental patients some infective diseases, serious or of considerable mortality in normal patients, run a relatively benign course. A good example is erysipelis. The skin lesion may be absolutely text-book. The patient suffers relatively little constitutional disturbance and recovers. Explanations that this is due to infection of a low-grade virulence are very specious, unless the germ of erysipelis is endowed with such humanity that it wishes to add as little as possible to the sufferings of the mental patient.

In mental patients the causes of death are very limited. The vast number can be ascribed to decay of the heart and blood vessels, and to pneumonia, usually broncho-pneumonic in type and analagous to the terminal pneumonias of the senile. One encounters uraemia fairly often, but this is due far less to parenchymatus nephritis than to those renal conditions which express, or occur as part and parcel of, an arterio-sclerotic tendency, *e.g.* arterio-sclerotic kidney and chronic nephritis.

Arterial and cardiac degeneration, integral features of growing old, are well marked in mental cases and cause death in many. The terminal pneumonias from which these patients so often die are no doubt contributed to by the emphysema so commonly found among them. Emphysema is also associated with arterio-sclerosis as a sign of wear and tear. We must thus conclude that mental patients to a large extent die of what one might call the ultra-natural causes of death. They die of the conditions from which ageing man was intended to suffer. They have an impaired biological resistance to the vicissitudes of life. This is expressed with remarkable exclusiveness in the mental sphere. In being so remarkably free from physical disease they are spuriously analogous to the healthy man.

When mental patients do succumb to acute physical illnesses, most particularly acute infective conditions like pneumonia, there is very often a remarkable improvement in their mental states. Patients previously half-stuporose, mute or only capable of talking gibberish, often demonstrate suddenly

a considerable degree of lucidity. This is often pathetically interpreted by the relatives as a hopeful sign. Most often it is just the contrary. It too frequently signifies a bad prognosis so far as life is concerned. Should the patient recover he lapses back, to the intense chagrin of his relatives and friends, into his former mental condition. This state of affairs is so common that it should be the duty of all psychiatrists to warn relatives that an increase in lucidity in the above circumstances must be regarded as a bad and not a good factor in prognosis.

Such occurrences as the above lend weight to the theory that physical and mental diseases may, under certain conditions, be alternative pathological responses to the same aetiological causes.

Just as infective illnesses will cause a vast amelioration in mental symptoms, so, too, will accidents. In the latter case the fugitive lucidity may last just as long as in infective conditions. More often it is of briefer duration. What is more remarkable is the speed with which relative mental clarity may be attained after such accidents as a fractured neck or femur. I remember a muttering, incoherent, snarling dement, over eighty years of age and for forty-eight years continuously resident in a mental hospital, give a reasonable account of the accident by which she sustained a broken femur. She proffered this description within an hour of her fall. At the risk of being charged with charlatanism I venture to assert that such acute variations in the mental state can be used as actual aids in the *surgical* diagnosis of physical injury. Where one suspects a fracture, and where the symptoms are by no means unmistakable, I would always plump for an actual fracture where there is a suddenly revealed lacuna of clarity in patients formerly demented or markedly dissociated. Quick changes of lucidity do not, as a rule, occur in physical injury without actual fracture.

We must now investigate to what extent neurosis is accompanied or unaccompanied by physical disease. This is important, among other reasons, because of the popular view that worry kills.

It is necessary, at any rate for the purposes of this particular discussion, to divide the neuroses into two categories. Firstly, we have those neuroses in which disease symptoms are expressed in more or less purely psychological spheres. In this class we encounter acute anxiety states, phobias and obsessional reactions. True neurasthenia, the symptomatology of which is exhaustion without tangible physical cause, together with particular quasi-physical symptoms such as pressure feelings in the head, also comes into this category. In this group physical disease is not very evident. The patients tend to longevity. Physical illness, when it occurs, is well resisted. I have just treated a gentleman of eighty-eight. On auscultation he had marked signs of acute bronchitis. His sibili had the authentic hiss. His rhonchi were a series of genuine dramatic groans. He had basal consolidation, with grossly impaired air entry. His constitutional symptoms, expressed by his pulse, respirations and temperature, were very slight. He has been a lifelong psycho-neurotic, with marked hypochondria. He has hawked his symptoms not only in the world market at Vienna, but as far afield as the United States. This is an extreme example of a general rule.

The teaching profession is very prodigal of neurosis. Its members are particularly afflicted by diseases coming in this first category. Teachers are among the most long-lived members of the community.

Space does not allow more liberal quotations. It is, however, a fact that the full-blooded, pure-culture neurotic is only slightly susceptible to physical disease. In this category worry certainly does *not* kill.

The second group includes those varieties of neurosis where abnormal emotional states are liberally accompanied by somatic reactions, *e.g.* the anxiety neurotic whose fits of panic are heralded in, or accompanied by, uncomfortable sensations in the epigastrium, sweating, etc. etc. This type of neurosis merges imperceptibly into what are still called functional illnesses. These latter we may define as diseases expressing themselves in symptoms expressing the dysfunction of some

particular organ or distribution of nerves, but where there is no demonstrable organic foundation for the condition, *e.g.* functional tachycardia. (We will see later that the attempt to demarcate clearly neurotic, functional and organic diseases is a most fallacious procedure.)

Neurotics with somatic symptoms are more prone to physical disease for the simple reason that there is no clear dividing-line between these conditions and what we call functional diseases. As these latter may, and often do, become organic, we are here dealing with a type of worry which well may kill. An example of this continuous development from the neurotic to the physical sphere is provided by the tendency of anxiety states or obsessional states with a considerable accompaniment of anxiety and complicated by abnormal epigastric sensations, to pass over to functional hyperchlorhydria. (It is not sufficiently realised that many of the vague epigastric feelings which, in neurotics, we airily dismiss as imaginary are, in actual fact, expressions of hypertonicity and excessive production of acid.) In its turn the functional hyperchlorhydria may well give rise to a duodenal ulcer which may perforate or which in chronic cases may become carcinomatous. In such cases we may well say that worry kills.

But the most interesting fact which emerges in the study of such cycles of disease, progressing steadily from the neurotic to the organic, is that the more physical the symptoms the less the case is complicated by *conscious* anxiety. The patient with duodenal ulcer *feels* less anxious than the anxiety neurotic with attacks of indefinable dread and a few uncertain feelings round his solar plexus. The physical symptom substitutes and largely removes the conscious anxiety.

Throughout medicine we will find that physical and nervous diseases tend to substitute each other. The mortification of the flesh saves the mortification of the spirit. This is almost intuitively felt by many neurotics. How often do we hear, " If I only had something physical, something tangible. I wouldn't mind if it was T.B. " ? The neurotic often clamours for the justification of physical disease. The latter, when it

occurs, has very often an excellent effect on the psychological state of neurotics.

We know that tremors and paralyses of hysterical origin, without real damage to the brain or spinal cord, are a means of resolving the patient's psychological difficulties. For instance, cases of shell-shock, contracted under bombardment, can often be explained as follows. The instinct of self-preservation impels the patient to run backwards. His social and moral sense urges him to go forward. The resulting conflict is solved by the unconscious induction of paralysis of the legs. The patient therefore cannot run at all. He is thus saved both the censure bestowed on cowardice and the danger which is the lot of the brave. (Shell-shock is, to a large extent, an English disease. It shows the national genius for compromise.) What we do not sufficiently realise is how many physical diseases, with demonstrable gross changes in the body, are a solution of psychological difficulties. Before the onset of intractable and incurable forms of arthritis there is often a period of neurosis which clears up with the appearance of organic symptoms.

Most of us have heard of *la belle indifférence* of the French neurologists. This term attempts to convey the beautiful calm of those hysterics who have achieved their ambition to avoid responsibility by inducing in themselves a state of resistless torpor and the reputation for chronic invalidism bravely borne. What we do not sufficiently realise is that the stoicism of many patients with chronic constitutional diseases accompanied by pain is of a nature allied to *la belle indifférence*. They have got what they want, the unquestionable label of invalidism from physical causes. This is always a lot more heroic than nervous debility. They have achieved their desired goal as carrier of the cross. I do not think we sufficiently appreciate the intense masochism, the joy in suffering, of some of our patients, even those suffering from painful physical diseases. In deep relaxation we can healthily auto-suggest our pains away. It is at least possible that in states of tension we can do the reverse.

Most disease is a response to, or an evasion of, strain,

Much physical disease is the end result of too much stress. The patient may not be consciously anxious. What is more important is the fact that he is placed in a situation normally conducive to anxiety, exhaustion and stressful feelings. He carries on. His physical illness is a response to strain. In neurotic conditions the factor of conscious anxiety operates earlier. It continues longer, in order either to aid the patient to avoid contact with repugnant conditions or to give him the reputation of carrying on under great disabilities. For this reason neurotic conditions are essentially more chronic than others. Much neurosis is therefore an *evasion* of strain. Those cases which begin in neurosis and end in physical disease are examples of evasion ending in response. The subsequent peaceful endurance, the terminal *belle indifférence*, is therefore peculiarly blissful. The conscience has been put to sleep. And if our increased sympathy and understanding of neurotic conditions continues we may well see a still greater increase in their incidence and a diminution in that of physical diseases. We will have increased the factor of permissibility.

There is nothing fantastic in this idea of one type of disease response preventing another. It is actually used in medicine. Clinicians are traditionally opposed to diagnosing more than one disease. Again, vaccination, inoculation with cowpox, is a prophylactic against smallpox. Malaria is used in the treatment of general paralysis of the insane. One of the main reasons for adopting this technique was the observation that in malaria-sodden African communities, riddled also with syphilis, the terminal nervous complications of syphilis, general paralysis and locomotor ataxia, were scarcely ever seen.

In tropical medicine we encounter a whole horde of infective conditions. We have indeed schools of tropical medicine because natives of this country are unacquainted with a large proportion of the diseases they will encounter in tropical practice. It is only to be expected that life in primitive communities with different conditions as to soil and climate would provide a larger variety of infective conditions than we encounter here. But the striking fact is that there are so many

diseases from which we suffer which the native in the tropics largely escapes. Except for nervous conditions arising from malnutrition, such as beri-beri, and from infections, as in the cerebral forms of malaria and trypanosome fever, diseases of the brain and nerves, as well as psychological conditions, are much smaller than with us. Neuroses are of minimal development. Long-standing psychoses are small compared to their incidence in Europe.

There are, too, fewer organic conditions of the central nervous system, such as cerebral tumours. These organic conditions are of importance from the standpoint of the question we are considering, because it is clear that the nervous system of Western man is, as a whole, more vulnerable than that of his counterpart in more primitive communities. Not only are psychoses and neuroses more common with us, but so also are tumours and abscesses of the brain, as well as cerebral signs of arterio-sclerosis such as cerebral haemorrhage, embolisms, etc.

The antagonism between physical and psychological diseases is shown also by the way physical diseases, when they do occur, are often grossly amended in mental cases. This is perhaps most obvious in the case of pneumonia. It is possible to observe all the symptoms of pneumonia with almost negligible physical signs. (I am not referring to such conditions as central pneumonia, where the elucidation of physical signs is difficult even in normal subjects.) Equally common is the occurrence of physical signs of pneumonia with the most minimal development of constitutional symptoms.

Clinicians have long commented on the sanguine disposition of patients with serious chronic diseases. The spes phthisica is a common example. Diabetics are as a rule very optimistic people. So, too, are many who die of cancer. In some of the most marked cases of pernicious anaemia we not only find a remarkable absence of subjective symptoms but also an amazing ability to carry on cheerfully, performing the most arduous tasks with the most appalling blood counts. I remember particularly a cheerful, uncomplaining man of nearly

sixty, a woodcutter by trade, who had been felling trees the day before visiting me at out-patients. He had one and a quarter million red blood corpuscles, a quarter of his proper quota ! He said he didn't feel too bad and was very loath to enter hospital.

All kinds of explanations have been offered for this unreasoning cheerfulness in the face of serious chronic and mortal diseases. Spes phthisica has been explained as a cerebral effect of circulating toxins, for no reason except that the itch to explain will readily overcome the trivial detail of data. In the light of our theory we can regard profound chronic disturbances, such as pernicious anaemia and tuberculosis, as so saturating the victim with pathological signs of physical origin that no anxious or depressive response is required of his psyche. It must not be forgotten, too, that we may again be encountering the question of psychological conflict resolved through physical disease.

While discussing the subject of interchangeability of disease it is interesting to study how the manifestations of a particular disease can vary from century to century. Syphilis provides us with an admirable example. In the seventeenth century this disease ran a hectic course. It was an acute fever with numerous dramatic physical signs. As time passed the acute early manifestations were less noticeable. In the nineteenth century the visceral signs in the secondary stage of the disease, *e.g.* gummata, were very conspicuous. The ubiquitous depredations of the parasite of syphilis were recognised. It was well described as the hidden hand in pathology. This tradition was suitably celebrated in the text-books I used as a medical student from 1923 to 1929. (Medical text-books are to a large extent tributes to their authors' faith in their forebears.) At this time large tracts of the standard works on medicine, surgery and pathology were still occupied by the description of gummata. Nevertheless I have only seen one indisputable gumma in a patient and none at post mortems. Syphilis nowadays is a disease where the physical signs at the time of infection and for a year or two after are slight. But while the

last century has seen a vast reduction in the visceral effects of syphilis, it has also witnessed a great increase in those diseases of the nervous system, chiefly tabes dorsalis and general paralysis, attributable to syphilis. (There has been in some places a reduction in the incidence of these latter diseases in the last two decades, due to new techniques in anti-syphilitic treatment. This recent diminution does not alter the fact that syphilis of the nervous system has increased enormously in the last century.)

Fifty to a hundred years ago, when tabes or general paralysis occurred, they did so fifteen to thirty years after infection. Nowadays these sequelae ensue at a much shorter interval. But a more fascinating observation is that while tabes, previously considered an invariably progressive condition, is displaying a tendency in many cases to stop short at a relative degree of optic atrophy and absent knee jerks, there is no equivalent tendency in general paralysis. The more psychological disease, once established, runs its course, with or without remissions. This is an example of the bias towards psychological illness in our modern maladies.

This gross reduction in the visceral effects of an infective condition like syphilis, with a concomitant increase in complications affecting the central nervous system, is of great significance in view of what we have said of the latter's greatly increased vulnerability in modern life. It seems, not from this one instance alone but from the most multitudinous evidence, that physical disease, in the course of its decline, is tending particularly to affect the central nervous system. This demonstrates not merely the latter's increased vulnerability but the fact that increased organic disease of the central nervous system is a half-way stage to an era when the greater part of disease will be psychological in nature. We are getting on to this latter state of affairs when we study the rising waters of psychosis in our institutions and the flood waters of neurosis which inundate and threaten to submerge society.

But we must not lose sight of the less obvious factor of the central nervous system's increased susceptibility to infections. Measles, scarlet fever, diphtheria are of varying incidence in

different decades. Cholera and plague are virtually extinct among us. Typhoid declines steadily. The only infectious diseases which have shown a steady march upward in the present century are those affecting the central nervous system. Cerebro-spinal fever and anterior poliomyelitis are rising in incidence. For some years the latter has been endemic in Scandinavia and even, a fact not generally realised, in parts of England. Encephalitis lethargica is virtually a new disease. Attempts to prove that this latter condition occurred in isolated epidemics in previous centuries are unconvincing. It is curious and exasperating the way, lost in too abstruse and fanciful thinking, we refuse to face this fact of the increasing vulnerability of the central nervous system.

In anterio-poliomyelitis and encephalitis lethargica we have not yet identified the causative organism. We may ultimately find that this is some microbe already known to us and that the increasing incidence of such diseases as those above mentioned is due more to the nervous system's increased liability to infection rather than to the appearance of any new organism, or even to heightened virulence on the part of one already known.

We are a long way yet from discovering what determines whether physical or nervous disease shall ensue, given the factor of strain and the presence of infective agents. These latter are still called causative organisms. They are doomed in the future to be relegated to the status of mere precipitants. It will be noted that in the foregoing sentence I have used the word nervous in what seems a very vague fashion. I do this deliberately, because I think we are wise to classify neuroses, psychoses and organic diseases of the brain and spinal cord as equal evidences of an impoverished vitality of the nervous system. In terms of this crude classification it seems possible that what we call non-nervous physical disease (provided we limit ourselves to the chronic constitutional conditions) is attributable largely to some flaw in the endocrine glands plus an innate tendency to imbalance in the autonomic nervous system. In nervous conditions the focus of diminished resistance is in the central system.

Chapter Seven

Neurotic, Functional and Organic

In the previous chapter we touched on the fallacy inherent in the current conception of disease as divisible into neurotic, functional and organic categories. It is necessary to deal with this further because such a doctrine encourages a particulate, restricted and unnatural conception of the sick patient. It militates against the study of the whole personality.

I offer below a crude definition of the three categories, not to instruct readers, but to indicate clearly the three reaction types with which we are concerned. The terms used are the baldest. There is nothing more irritating and effete than this craze for precise nomenclature. It is an infiltration of bureaucracy into medicine. It is non-therapeutic. It is often illogical, seeing with what obstinacy man persists in defying classification. It is found chiefly in those pretentious departments of medicine where the alleviation of the pains of individual man is a secondary consideration. It is also found, significantly enough, in specialities like neurology and psychiatry, where treatment is too often unproductive.

Organic disease implies real physical symptoms arising from organs or tissues with demonstrable pathological lesions.

Functional disease occurs where physical symptoms are attributable to particular organs or tissues in the absence of any demonstrable pathological lesion.

We are, in this connection, merely concerned with neurotic disease in so far as the patient complains of physical symptoms or sensations. These are vague, poorly defined, badly described—usually with a descriptive excess—in terms of the strictest physiology, and not attributable to any particular organ or tissue. These are the patients who have "their stomachs on their minds."

We have seen that neurotic conditions may proceed through functional disturbances to organic disease. We have seen, too, that all these varieties of reaction may be present in the same patient at the same time. But to this day medicine largely insists that these types of reaction are mutually exclusive. Much valuable time is lost in the mephitic atmosphere of the wards of our teaching hospitals in distinguishing between the three categories. We must now study more closely the disastrous effects on therapy of this fallacious conception.

We will pass lightly and quickly over the major errors. Men are labelled neurotic and functional till they die of inoperable cerebral tumours or their peptic ulcers perforate. I am not hurling wholesale charges of negligence at the profession. I am not impugning their standard of skill in elucidating physical signs. They are skilled, I think sometimes a whole world too skilled, in this latter practice. In cases of doubt it would often be better if we confined ourselves to the location of the organ expressing disease and indicated, as far as possible, the broader outlines of the morbid process. But we feel that more is required of us. Consultants are the worst sinners in this respect. Given hunger pains in the epigastrum two hours after meals the general practitioner's thoughts have gravitated quickly enough to the duodenum. He sends the case to the consultant. The latter feels that a little more is expected of him. A good specialist will keep an open mind and communicate his doubts to the home doctor. But only those who have listened to the infallible dogma of a kind of specialist can realise with what self-confidence they can label a patient for ever as neurotic, functional or organic after half an hour by the patient's bed.

Now this is not always vanity. Many specialists have often a becoming humility which charms and misleads the general practitioner. It is more to be explained by that ultra-scientific outlook which insists on diagnostic criteria as cast-iron as the cold, irrefutable and awful symbols of mathematics. Such physicians are seeking for relatively static concepts of disease in the dynamic world of personality. It can't be done.

This *idée fixe* about neurotic, functional and organic disease makes it necessary for the doctor to make up his mind too early. We have mentioned the possibility of his regarding organic disease as functional. The reverse process is just as dangerous. Cases are diagnosed as organic far too soon and condemned to unnecessary and restrictive invalidism. I well remember the neurologist Adie imploring his students not to worry too much if they failed to diagnose organic diseases. He begged them to eschew the more unforgivable sin of manufacturing disease by over-diagnosis. We all know cases of functional heart murmurs who had been condemned by over-fussy doctors to the semi-invalidism necessitated by cardiac disease. This generation is less prone to this type of error than the one which preceded it. The cardinal sin of the older school was in regarding too much functional disease as of serious import. This generation is more likely to commit the opposite error.

Because of this conception of three separate disease reactions patients have often to forgo treatment which may be invaluable to them. Often a line of treatment invaluable in organic conditions is also of great usefulness in allied functional disorders. Yet how often is it denied the patient who suffers from functional disease. One could advance innumerable examples to prove this point. I will quote only three.

The value of Vitamin B in peripheral organic conditions of the nervous system is established. It is invaluable in peripheral neuritis whether due to alcohol or other causes. It is valuable also in neuritis expressing the rheumatic diathesis. It is excellent in sciatica. It is of value in tic douloureux. Unfortunately when we decide that our case of neuritis is largely functional, that our patient with sciatica is an anxiety hysteric, and that our subject of fifth nerve neuralgia has always had nerve pains all over the place, we fail to give Vitamin B. This is fallacious because Vitamin B can be of immense benefit to the patient with functional nerve pains. Secondly, our patient's nerve pains may well be functional, and attributable to their anxious or hysterical tendencies. But why are the peripheral nerves selected for the expression of

the functional, anxious or hysterical tendency? Because they are innately vulnerable.

In gastric diseases it is often best to treat the functional condition by the same method as its organic equivalent. It is, for instance, safer to treat hypertonic stomach and hyperchlorhydria as duodenal ulcer. This attitude is often adopted in these conditions. There is, however, a tendency nowadays to interpret the patient's maladjustments and leave him without the guidance of a regime and some rational medicine. It is impossible to estimate the harm done in such conditions by an exclusively psycho-analytic approach. It depresses me to find, so often, conditions like lienteric diarrhoea, mucous colitis, etc., treated by psycho-therapy alone. This is not progressive medicine. It is clinical pretentiousness claiming for itself occult powers. I grant emphatically that mucous colitis occurs in highly strung individuals. I would go further. The colitis is an integral part of their state of tension. I grant less emphatically that the first onset of such conditions may be determined by conflict or other psycho-neurotic factors. But what I do insist on is that the psycho-neurotic tendency in these conditions is exhibiting a preference for a particular avenue of expression, and that avenue, as for example the colon in mucous colitis, must be regarded as especially vulnerable in the individual concerned. The patient must be afforded local in addition to other forms of treatment.

I am not in any sense minimising the importance of the psychological factor and stressing unduly the local symptoms. I merely assert that we should give the patient an understanding of his condition and give him some reasonable unpretentious treatment for his symptoms. The social system will not allow us to do more. After all, it helps us to produce these ailments.

Our third most graphic example is afforded by the treatment of epilepsy and allied conditions. In the case of genuine ideopathic epilepsy—I do not propose to dissect out sub-types from the maze of classification encountered in the epileptic response—the treatment *par excellence* is the use of the anti-

convulsant barbiturates, such as luminal and prominal. Some hysterical patients have convulsions indistinguishable from those of epilepsy. (These epileptiform reactions are precipitated by emotional causes. So, too, are many fits in ideopathic epileptics.) But where the latter are put on luminal, without question, and almost by a process of reflex action, it is not often the hysterical patient receives systematic courses of anti-convulsants. The attitude we should adopt towards fits in both ideopathic epileptics and hysterics is that in both kinds of patient we are dealing with an innate tendency to produce convulsions.

It is always safer, more rational and more productive to treat tendencies rather than symptoms. This truth is of added importance in dealing with the central nervous system. In neurological, as compared with other pathological conditions, symptoms are more due to the site than to the nature of the disease process. No matter what the fundamental aetiology of epilepsy is, at least it involves increased excitability of the motor cortex. It is rational to assume that this hyper-excitability is present also in those cases of hysteria which chose to manifest themselves in the form of fits. After all, the channels of expression of hysteria are very protean. If in the one disease we prescribe drugs to diminish the excitability of the motor cortex, it is only rational to do so in the other.

The question of convulsions in hysteria and epilepsy opens up another question for discussion. Here we have identical dramatic symptoms, *i.e.* fits, ascribed in the one case to a functional illness like hysteria and in the other to an organic condition like epilepsy. Does not this separation into organic and functional obscure from our view the fact that in epileptiform hysteria and epilepsy we are dealing in both cases with an identical biological reaction? Are we not observing the responses of similar varieties of personality?

I have long thought it peculiar logic that so much space in text-books should be devoted to the careful distinction between epilepsy and hysteria. Where it is necessary to make such fine distinctions it is reasonable to suppose that the conditions contrasted are very alike. At least their similarity should be given

the same consideration as their differences. Much ink has been spilt on the epileptic temperament. These patients are domineering and egocentric. Their sphere of interest does not extend beyond the limits of their own psyche. In deterioration it is confined to the workings of their own viscera. Hysterics also exhibit many of these personality traits.

Hysterical reactions are largely dictated by the desire to maintain the attention of those around them. Those who have had any intimate institutional experience of epileptics realise that many genuine epileptic convulsions have a similar though possibly less conscious derivation. Generally speaking, epileptic and hysterical reactions have a similar causation. The main difference lies in the degree to which the responses of each are consciously evoked. These responses have, of course, a more unconscious derivation in epileptics.

There is still more evidence of the similarity between the hysterical and the epileptic personality. The Rorschach test is used in the elucidation of personality traits. The test depends on the relative recognition of form, colour and movement in coloured ink blots. Broadly speaking, movement and colour respectively signify introversive and extroversive tendencies. In its basic claims as to its efficiency in outlining personality types this test is remarkably accurate. Epileptics and hysterics show a striking identity in the proportion and type of colour and movement answers they offer. This, according to the proved theory of the test, signifies identity of personality structure.

It is time we abandoned the concept of neurotic, functional and organic diseases, and embraced the more fruitful study of basic biological reactions. The careful separation of hysterical from epileptic fits is an example of purposeless analysis at the expense of constructive synthesis. I will next quote the case of two diseases, at present considered entirely as separate entities, but which represent two different aspects of a more fundamental biological reaction. The two diseases concerned are epilepsy and dipsomania.

Dipsomania involves a sudden catastrophic reaction after long periods of abstinence. It is a reaction of the total person-

ality. It includes acute physical and mental signs ensuing with appalling suddenness and to a degree out of all proportion to the amount of alcohol ingested. It is the specific alcoholic reaction *par excellence*. (Chronic alcoholism shows analogies with other drug addictions in both mental and physical spheres. Delirium tremens presents a symptom complex resembling that encountered in other varieties of acute toxaemia whether due to infection or drugs.)

The peculiar and sudden violence of the dipsomanic reaction is analogous to that which occurs in epilepsy. Both are total personality reactions. They involve both physical and mental aspects of the psyche.

The nature of the epileptic convulsion suggests that the disease is an anaphylactic reaction, or something like it. There is the same precipitate onset, the same dramatic symptomatology. The post-mortem findings in epileptics dying during convulsions show tissue changes compatible with anaphylactic phenomena. The family history of many epileptics discloses the existence of phenomena like asthma, urticaria and migraine, which often involve sensitivity to some particular chemical substance. In asthma, urticaria and migraine this is usually ingested in the diet or found in the environment. In epilepsy it may well be a toxic bi-product of metabolism. Dipsomania involves the most massive and abnormal response to even the smallest quantity of alcohol following an abstinent period. The analogies with anaphylaxis are obvious.

Now alcoholism and epilepsy are the two best examples of direct inheritance in the neurological and psychological sphere. A manic-depressive father may beget a son with the same affliction. More often some other psycho-pathological condition, such as neurosis or mental deficiency, results. But epileptics do very commonly beget epileptics. Alcoholics tend also to breed true. It seems, therefore, that in dipsomania and epilepsy the victims may have inherited similar abnormal pathways of discharge in the central nervous system. And where there is no family history of epilepsy what is the commonest finding among the forebears? Alcoholism. We should

remember, too, that we encounter epileptic phenomena in alcoholism. Such convulsive signs do not by any means afflict the heaviest drinkers.

I am well aware that psycho-analysts are capable of explaining the alcoholic reaction in general. Such is their mental elasticity that they can concoct some glamorous and plausible theory for dipsomania. The statement that alcoholism is a symptom rather than a cause of disease is true enough in many cases. The claim that the alcoholic takes to his drug to dull the edge of his growing anxiety is reasonable. There are other forms of sedative available. Alcoholics are usually neglectful of coitus, the most ubiquitous of all sedatives. It is not just that alcohol begets relative impotence. Your true alcoholic has usually a low sexual potential *ab initio*. Alcohol admittedly is the most accessible sedative. But can one explain on psycho-analytic lines the hereditary factor in alcoholism? It is not just that the patient is born into an environment affecting him adversely from the start. The anxious patient, verging on alcoholism, has often the salutary lesson of a father to divert his craving for sedatives to other channels. Above all, how can one explain, on psycho-analytic lines, the complete mental and physical disruption of a personality such as occurs within a few hours in dipsomania? How do we account for its spasmodic occurrence at intervals which may be as long as two or three years? Surely we are nearer the truth if we regard dipsomania as a paroxysmal reaction equivalent to a bout of fits.

In dipsomania and epilepsy we have two diseases, best regarded as of the nature of metabolic crises, paroxysmal in nature, expressed principally through the central nervous system, but essentially total reactions of the total personality with profound mental and physical effects. Both have a strong hereditary factor in their aetiology. These two conditions should be regarded as alternative expressions of the same primitive biological response. Such an attitude will enable us to understand far better the more fundamental aberrations of our psyche than our present piecemeal and parochial outlook.

As a further criticism of the conception of disease as divisible

into organic, functional and neurotic, it should be pointed out that even in neuroses where the symptoms demonstrated are expressed in predominantly psychological mechanisms, *e.g.* the obsessional states, there is growing evidence that they are due to either organic lesions or dysfunction of the central nervous system. Obsessional neurosis has been ascribed with considerable justification to a mid-brain lesion.

It is possible to associate some strictly psychological diseases —again obsessional neurosis is the best example—with certain physical diseases as alternative expressions of the same biological response. Obsessional states show a likeness to spasmodic nervous conditions, such as asthma, migraine and epilepsy. There is the same paroxysmal factor. While to be obsessional implies a continuing tendency, there is no doubt that obsessionals do boil up into acute paroxysms in which they repeat constantly the same unvarying and purposeless act, such as touching lamp-posts, railings or other objects, etc. This has analogies with the convulsive phenomena in epilepsy in that in both there is the same tendency to the fruitless repetition of identical responses. It is difficult to define exactly, in either epilepsy or obsessional states, what the actual irritating stimulus is. No doubt these are multitudinous in both conditions. Both may be psychological in origin, devolving round conflict and sense of guilt in the case of the obsessional neurotic and being due, in epilepsy, to the difficulty in establishing rapport with the environment in virtue of the patient's egocentricity. The factor of importance is that in both epilepsy and obsessional neurosis we encounter increased excitability of the central nervous system as well as the phenomenon of 'after-discharge,' which implies innumerable identical or similar responses to the same original stimulus.

Obsessional tendencies are often expressed psychologically rather than physically, in compulsive thoughts rather than compulsive actions. This occurs when we cannot exclude a particular thought, or a scrap of a tune, from our heads. The conditions have analogies with epileptoid states where the epileptic tendency is not expressed in the motor convulsion.

It is very necessary for us to conceive of vulnerable foci in human beings. To do this is of at least equal to considering whether the symptoms arising from an organ are organic, functional or neurotic. We are appreciating more and more the psychological factor in the production not only of neurotic and functional, but also of organic disease. But why should the effects of strain and anxiety find fundamental expression in one man through his stomach, in another through his heart, in a third in the form of rheumatic conditions? The psycho-analytic approach will *not* account for the selection of particular organs for the expression of strain. It *does* account, to some extent, for the selection of *site*, in the strictest geographical sense. An anxious pianist, verging on arthritis, will often suffer most in his hands. A pre-arthritic professional cricketer, famed for his bowling, will, if haunted by anxiety and insecurity, give substance to his worst fears by developing arthritis in his right shoulder (if he bowls right arm). Even here one cannot say that psycho-analytic explanations are by any means infallible in determining even the crude geography of the arthritis. Over-use may be equally sound as an explanation.

But what determines the choice of bones, muscles, heart, lungs, stomach, etc., as the channel of expression of inordinate strain or of average stress on an impoverished psyche? We are back again through the concept of diathesis to its even more fundamental substratum, the demarcation of types of psyche. These latter determine, in virtue of their particular peculiarities of endocrine function and autonomic activity, the particular foci of diminished resistance.

Rightful concepts are always of value. They are milestones on the road to wisdom. But there are two more immediately useful applications of this concept of vulnerable foci. Firstly, it should help to enforce on us the hereditary nature of much disease. Foci of diminished resistance cannot logically be regarded as acquired, except by accident, using the term in its most literal sense. As doctors we will not face the hereditary nature of a large proportion of constitutional disease. It saps our belief in our own usefulness. Our vocation has

dramatic possibilities far in excess of most others. A few years ago the lady novelists in their romantic hearts expected much of us. Male authors, writing for women readers and therefore much more messy emotionally, invested us with powers we never possessed. The novelists torment us less—though it is remarkable how many people love a book with a doctor in it. We have been taken up by the press which has for some years suffered from the fever for popular science. So much is expected of us that we cannot regard ourselves less as healers than as kindly alleviators of the predestined and foredoomed. It hurts too much our *amour propre*. To believe in oneself is always amusing. It is dubious policy if, in so doing, we infringe the principles of mental honesty.

But because we cannot achieve the impossible there is no need to decry our usefulness. To learn our limitations is no excuse for mental laziness or self-abasement. We can still make easier the path of those who, whatever we do, must bear their cross. But most of all we must utilise our knowledge to reduce in the future the high incidence of chronic constitutional illness. This largely involves a new social system, which in its turn depends on the biological planning of communal living. As doctors we must therefore be reformers and prophets as well as clinicians.

This concept of vulnerable foci automatically substitutes the theories of neurotic, functional and organic disease. It implies that whether the disease reaction is physical, or only quasi-physical, it will express itself primarily through the vulnerable organ. The latter is therefore to be regarded as of more fundamental importance in producing disease.

Finally we must not forget that our best efforts in preventive medicine are forcing on us this gospel of vulnerable foci. When we recognise the pre-choreaic or the pre-dyspeptic child we are merely separating into groups cases where strain transmitted by and inflicted on the central nervous system finds in the one case a vulnerable corpus striatum and in the other a stomach innately weak.

Chapter Eight

Disease as Disharmony. The Autonomic Nervous System

We have seen how neurotic conditions can become functional and the latter pass over to organic disease. All three types can occur together. Now functional disease, and physical symptoms accompanying the neuroses, depend largely on the autonomic nervous system for the expression of their symptoms. The hypertonic stomach reveals itself chiefly by rapid emptying and pyloric spasm. Vegetative imbalance determines both. Functional tachydardia is due to abnormal activity of the vagus, etc. But we do not realise sufficiently to what extent imbalance of the vegetative nerve system is not only responsible for symptoms but an integral part of so much physical disease. Yet this is what we could reasonably expect when we consider how often the functional becomes the organic.

We do not sufficiently realise, in taking case histories in organic diseases, that in investigating the prodromal phases we are so often recording a functional era in the history of an organic disease. The long-standing history of dyspepsia we obtain in so many cases of duodenal ulceration is usually a functional hypertonia. The pain referrable to joints, the stiffness in muscles adjacent to joints, is the functional stage of rheumatoid arthritis.

The autonomic factor in disease of the endocrine glands is only to be expected when we consider to what extent the endocrine and autonomic nervous systems are interrelated. Hyperthyroidism is to a large extent a dramatic embodiment of overactivity of the sympathetic nervous system. Addison's disease expressed equally the last expiring gasp of the same system. Autonomic factors are conspicuous at the menopause. Indeed, in practically all cases of endocrine dyscrazia, some

factors of imbalance can be recognised. I will not reiterate the innumerable examples we know already. I will add two observations of my own. The prevalence of asthma in subpituitary cases of the Brissaud and Lorraine types is very striking. In subpituitrous patients I have also frequently found 'absences,' to some degree epileptoid in character, and possibly vaso-vagal in aetiology.

There is a group of non-endocrine conditions (I use the word endocrine in its current meaning) in which imbalance is very obvious. These are asthma, migraine, epilepsy, duodenal ulcer, different varieties of colitis, Hirschsprung's disease, etc. One could greatly extend this list. I do not wish to contaminate established fact with anything at all conjectural.

We have seen that autonomic imbalance is prevalent in neurotics. We have seen that it, in conjunction with the endocrine glands, functions pathologically in the chronic strain diseases. It can indeed be said that recognition of the importance of autonomic dysfunction in physical disease is a criterion of the progressive evolution of medicine.

We have seen that neuroses with physical symptoms may be transformed into functional disease and from thence to genuine organic conditions. In actual fact the whole threefold chain is far less common than the change over from functional to organic states. It seems indeed, in the light of what we have said previously on the subject of physical symptoms replacing anxiety, as though the presence of innate functional imbalance is a means of avoiding the worst excesses of neurosis. Imbalance provides a groundwork for an immediate half-physical response to strain. The patient swings into the unnatural rhythm of vegetative imbalance. In so doing he avoids those neurotic reactions characterised by more exclusively psychological symptoms, such as anxiety reactions and obsessions.

Disease symptoms as a whole are expressed by the autonomic nervous system. Without the operation of the latter there would be no separate disease, no clinical entities. We would experience not specific groups of symptoms referrable to some particular pathological lesion, but a general state of

disharmony, an indefinable malaise the varying intensities of which would express the different degrees of disease. The liaison between the vegetative nervous system and the ductless glands determines the nature of the various diseases we are heir to. In addition, the vegetative nervous system shows certain innate differences in different individuals. But more important to us at the moment is the connection between autonomic function and the higher centres of the central nervous system. This is again achieved to a large extent through the medium of the ductless glands.

By means of its connections with the higher centres the autonomic nervous system responds to different emotions registered and experienced by the brain. We do not stress sufficiently that emotions are the prime activators of autonomic nervous activity. How do these emotions arise? First, the brain recognises intellectually, through the medium of the five senses, the presence of noxious or other stimuli. The appropriate instincts, for example the sex and self-preservative instincts, are put into operation. This arouses the specific emotions inseparable from these instincts. These are fear and lust in the cases quoted. Then follows the autonomic activity associated with the emotion. Fear, for instance, is accompanied by dilatation of pupils, tachycardia, etc. Fear is appreciated by the psyche as a whole. Its causes are recognised intellectually, it is responded to emotionally, it is expressed in varied reactions throughout the whole physiology and psychology of the organism. These varied reactions are dictated by the autonomic nervous system, which has previously taken over from the higher centres.

We have mentioned the responses induced by the autonomic nervous system under the influence of fear. Tachycardia, raised blood pressure, dilatation of the pupils are all productive offensive and defensive mechanisms enabling the animal to put up a good show. They are therefore to some extent physiological and normal. In civilised man they are less physiological. We do not fight physically, except when the Huns contrive it. But we suffer from more consciously ab-

normal autonomic responses to fear. These are abnormal for the simple reason that they are no help in our crises, but an obvious detriment. We lose control of our sphincters, acutely, as before an examination, chronically in hyperthyroidism. From this point we can lead off to the whole gamut of abnormal automatic responses traceable to anxiety, pyloric spasm, asthma, etc.

Now it is admitted that chronic fear is the curse of our age. It is also admitted that our nervous system is the slave of habit. Our chronic fear, transmitted through our central nervous to our autonomic system, encourages the persistence of the pathological reactions on the part of the latter. Our pyloric spasm and hyperchlorhydria tend to persist. They may even develop into duodenal ulcer. The fixation of breathing we experience under the impetus of terror becomes asthma. Our endocrine function is disturbed. Whichever gland is affected determines to a large extent the diseases we contract and, as we have seen, these diseases are by no means limited to what we call endocrine disturbances. I think out of this we can arrive at a conception of disease as a general disharmony of the whole psyche. The latter reacts totally to the strain and chronic anxiety it encounters. It may react by conscious anxiety, expressed in neurosis, or the chronic strain, only partly appreciated in consciousness, may be revealed in physical disease. The mode of expression chosen depends on the degree to which the autonomic nervous system has fundamental tendencies to imbalance. Where this latter is marked physical disease, either functional or organic, is the result.

But at any rate we should conceive of disease as a state of disharmony arising in the psyche. The latter, in health, expresses a customary harmonious interaction of mind and body. When pathological conditions arise the actual disease process is best regarded as a local expression of a general disharmony. If civilisation continues, the medicine of the future will regard with abhorrence the removal of, say, the gall bladder, because the generalised unharmonious disease process

expressed itself in symptoms referable to that organ.' We will not, I think, be regarded by posterity with the abhorrence we ourselves display to the barber surgeons of four centuries ago. We have, after all, to cope surgically with acute or chronic conditions where the removal of irreparably damaged organs is necessary to health and even existence. But we shall, I think, be indicted for our blindness in thinking locally instead of totally. We shall incur particularly grave censure for our management of early cases of such diseases.

It is, indeed, in our management of early cases of chronic conditions that we err so much. We do not regard our patients as a whole. We do not encourage them to look on their symptoms as a total problem. We think and act locally. We are like rustics whose horizon is bounded by their own small hamlet. Some make cholecystitis their particular study. The gall bladder is there Little Mud-Town. Some are consultants in other diseases. The lung is their Slowcombe-in-the-Marsh.

The function of present-day medicine is largely to patch up patients for a speedy return to an illogical civilisation which will continue to break them down. We cannot be entirely blamed for this. Far too often economic factors make such action on our part obligatory. We err in that we have allowed the conditions of practice, which are in turn dictated by social conditions, to mould for us a visionless philosophy of disease. Most of all we have sinned in not using our knowledge to produce a world order less productive of morbidity.

Treatment in the future will return to the Greek ideal of something like an enlightened spa regime. The latter will have little in common with the techniques practised in places like Bath and Harrogate. These resorts achieve their major usefulness as metaphysical symbols. They have a reputation as centres of healing. They are therefore primarily devoted to pursuing the indivisible harmony called health. This prescription being correct it is a thousand pities they have inaugurated modes of treatment which pose to some extent as specific cures for particular diseases. Even the most fervent of our sparlatans have ceased to believe in the particular virtues

of the mineral springs their patients splash in. The keynote of most spa treatment is to ensure by different techniques either relaxation or increased tonicity of the muscular system. This is true whether one is treating hyperchlorhydria, chorea, rheumatoid arthritis or anxiety neurosis by hydropathic methods. In all these conditions the physician is using artificial and valuable aids in inducing relaxation. The effect is primarily on the musculature, relaxation of which is a prerequisite of mental repose. (This is a cardinal principle in the science and art of relaxation.)

Now rest is of absolutely fundamental importance in treating vegetative imbalance. And because in civilised man resting is a lost art complete rest implies something induced by specific techniques of relaxation, such as baths, relaxation exercises and special kinds of massage. As we have seen, autonomic imbalance is an integral and paramount factor in most disease. It is therefore unfortunate that spa treatment has become to such a large extent discredited because sparlatans have claimed specific curative properties for their pet techniques. Spa treatment would be more rationally employed to the more general and rational end of correcting imbalance. One day it will be, and I think hospitals will be designed to afford something like spa facilities for all members of the community. This surely is a better aim than the collection of living pathological specimens.

Despite the fact that imbalance of the autonomic nervous system is of such importance in inducing disease it is only recently that clinicians have become pre-occupied with its importance. It was formerly relegated to the physiologists. The practising physician remembered it as a best forgotten part of his student curriculum. Even now, despite the current enormous activity in the pharmacological aspect of therapeutics, we have produced few drugs capable of acting with efficacy on the autonomic system.

It is of considerable significance that while we have made little attempt to derive means of controlling imbalance, in the sensuous and fatalistic East they have progressed far in achiev-

ing such control. The system of Yogi has undoubtedly achieved remarkable results in this direction. Our philosophy of living not only encourages our autonomic imbalance. It denies us the means of curing it. To study the art of relaxation —and Yogi is a variety of this art—is a process of re-education. Re-education takes time. We are more attracted by medical measures designed to ensure the relief of symptoms in the minimum time. With the relief of symptoms the disease tendency continues its subterranean erosions.

It is significant that France is the only European country where, in the past, the autonomic nervous system has received any conspicuous attention. The Frenchman more than any other member of the European race, has studied the art of living. (He has done this to his cost. It is dangerous to maintain civilised standards adjacent to barbarians.) He has been called the Chinaman of Europe.

East and West differ greatly in the attention they give to autonomic control. Different philosophies and ways of living are associated with different medical aims and standards. It must be remembered that Yogi, and many of the cults designed to achieve relaxation and obtain autonomic control, are actually religious in foundation. The actual techniques employed are indeed often ritualistic movements.

There are pressing practical reasons why we should as soon as possible investigate more closely all possible means of achieving control of the autonomic nervous system.

Firstly, closer realisation of the effects of vegetative nervous imbalance will clarify our problems of diagnosis. I will illustrate my meaning by a particular case. I saw a middle-aged woman with moderate tachycardia and digital tremor, who had recently lost weight. She complained, too, of pains and discomfort in the epigastrium two hours after food. The doctor referring her to me was puzzled whether to regard her as a case of hyperthyroidism or of duodenal ulceration. Being brought up in a worthy medical tradition, he did not wish to diagnose two diseases at once. I further complicated the issue by finding in addition a slightly enlarged liver.

Now many doctors encountering such symptoms would regard them as too indefinite, general and ubiquitous to be anything other than the hypochondriacal preoccupation of a neurotic personality. Others would dismiss the case as functional. So it is, but in what particular? Such symptoms are surely best grouped together under the heading of generalised vegetative imbalance. Such a definition confers on us a better insight into the nature of such a combination of symptoms. It enables us also to avoid the sin of multiple diagnosis.

Apropos the hepatic enlargement mentioned above, anomalies of bile secretion and hepatic activity are found commonly in fatigued individuals with unstable autonomic systems.

Secondly, there *are* patients who suffer from more than one disease, in the present meaning of the term. Duodenal ulcer and hypertonic stomach are frequently associated with migraine. It is important, from the standpoint of therapeutics in the future, to unravel the autonomic imbalance fundamental to each. Of perhaps greater importance is the tendency to two diseases in the same patient where autonomic instability is present in one condition and not the other. Duodenal ulcer, or its prodromal phases, is commonly associated in the same individual with rheumatic conditions. These latter do not as a rule amount to anything so grave as acute rheumatism. Well-marked fibrositis is commonly found. Patients suffering from more severe forms of rheumatism, such as rheumatoid arthritis, give often a previous history of acid dyspepsia with gastric hypertonicity just before the onset of arthritic symptoms. Sometimes they have suffered from duodenal ulcer in earlier life. It is common to discover that one member of a family has had rheumatic fever and the other duodenal ulcer.

Now in the latter condition imbalance is recognised. Recognition of the close association between the two diseases may result in the elucidation of autonomic factors in rheumatism. It is reasonable to expect their occurrence. The endocrine factor in rheumatism is being steadily disclosed. The

relation between endocrine and autonomic factors requires no labouring.

In many of the conditions we have considered previously vegetative imbalance determines the functional nature of the condition, and often, should the latter continue sufficiently long, an ultimate organic lesion. We should not forget that imbalance may provide an added and insupportable strain to organs diseased from other causes. In angina pectoris and pseudoangina we encounter a symptom complex of praecordial pain, radiating in characteristic directions, accentuated by exertion and cold and accompanied by a feeling of constriction in the chest and a sense of impending dissolution. Cardiologists claim to be able to distinguish between benign pseudoangina and lethal angina pectoris by a piecemeal dissection of the symptoms presented. This is fallacious because in both conditions the total clinical picture is to a large extent coloured and determined by vegetative imbalance. Nor is the difference one of degree. Ferocious symptoms traceable to imbalance, diagnosed as true angina, may not kill. Milder symptoms may have a fatal termination. Cases regarded as benign are apt often to terminate suddenly in death, in relatively young patients. On the other hand, many doctors boast of their cases of true angina which have lived for twenty years since their attacks began and remain relatively well. The only real distinction between the two anginas is the state of the myocardium. Mackenzie emphasised that angina can be induced by the effect of nerve strain on a heart which has suffered organic damage from any cause. It would be better to substitute for nerve strain liability to dysfunction in the autonomic supply to the heart. There is no reason why an anxiety neurotic with rheumatic carditis should develop angina. This is therefore a condition where our ability to control the autonomic nervous system might save a damaged organ from a superadded morbidity.

It is interesting to study the relation between sex and autonomic activity. The instigation of desire depends on the central nervous system. Desire is roused through the senses.

Impressions from these are relayed to the central nervous system. The activation of desire is achieved by autonomic activity. Sexual activity is the supreme example of the correlated activity of the two systems. It is a total reaction of the psyche. It is the ultimate fundamental in existence. This is not surprising. It is responsible for existence. It is a kind of mass reflex of the whole personality of man. At its best it is the most beneficent of all reflexes. In it desire, fulfilment and satisfaction succeed each other harmoniously and briefly. It is a healthy, because it is an undeferred aim. It is only logical that, in being a total reaction of the personality, it should embody the harmonious interaction of both systems. And the autonomic system's efficient liaison with the higher centres is necessary for the fulfilment of such activity. The direst consequences to health succeed any interruption of this liaison. Where desire is not activated by the autonomic system the pathological sequelae are dramatic. This is the example *par excellence* of supreme and total imbalance. Without the proper co-operation of the autonomic nervous system the psyche is denied its best opportunity for perfect rest.

There are other directions in which close study of the autonomic system might be of immense profit. There is evidence that debility after illness is due to vagotonic factors. There is also the problem of the control of the horde of symptoms like giddiness and fainting due to vasomotor instability.

Finally, we must remember that the autonomic system is the mechanism by which the instincts express themselves. This mechanism has a two-way action. The autonomic system produces somatic signs which reflect the effect of emotions each inseparable from its particular instinct. Conversely the control, by relaxation, of the autonomic system, damps down the effects of the prevailing emotion and aborts the activity of its accompanying instinct. In the throes of fear we respond by various somatic signs, included in which are increased muscular tension. If, by relaxation, we reduce the heightened tonus of our muscles we decrease and obliterate our feeling

of fear. Habit plays an enormous part in the activity of our nervous system. The more we can control the effects of the emotion of fear the less likely are we to succumb to it on subsequent occasions. The less we fear the less the instinct of self-preservation is likely to disrupt our lives.

Were the principles of relaxation more widely practised, in a world differently ordered, it might be possible in the course of generations to produce a generation less harried by anxiety than this of which we are members. This contention will be strongly challenged because it stresses too much the importance of heredity. I have emphasised this in other connections in other parts of this book. One understands the reluctance of doctors to accept the doctrine of the heredity of abnormal factors. It is a blow to our clinical pride. But if we face up to facts we have a great rôle to perform in the dissemination of wisdom. If we neglect to do so the consequences will be tragic. The eugenists, the lay theorists with a flair for totalitarianism, will get the ear of the Parliamentarians. When we have drifted sufficiently on the path to decadence violent biological technique, after the Nazi mode, will be adopted. Our timely intervention can save all this.

Chapter Nine

The Neuropathic Origin of Disease

This chapter is in no sense an exhaustive or scientific study of heredity in medicine. It deals with broad, irrefutable truths.

There are four types of disease where heredity plays an important rôle. These are mental defect, mental disease, the psycho-neuroses and what we have called the strain diseases. There is also a strong hereditary factor in cancer. Evidence quoted in this book suggests that the latter, too, will one day be classifiable with the strain diseases. In actual fact the infections and parasitic infections are the only type of illness where heredity has little or no influence.

In mental defect the heredity factor is, in relation to all other aetiological factors, of overwhelming importance. Except in Mongolian imbecility it is excessively rare to find non-defective parents. Even in Mongolism defect in the parents is common.

Mental defect is becoming steadily and inexorably more common.

In the psychoses heredity is again the most important aetiological factor. Here transmission of disease type is less direct. The defective usually breeds defectives. The psychotic may come of a stock not conspicuously psychotic, but running to neurosis, epilepsy or alcoholism. In the family history of practically all psychotics evidence of psycho-pathology is easily found.

The incidence of psychosis is rising alarmingly.

Former opinion believed that the neuroses were attributable to an innately impoverished vitality of the central nervous system. With the advent of Freudian analysis environmental factors were considered of greater importance. Even Freudians now admit in increasing numbers that infantile experience and

environmental factors merely determine the nature of the neurosis and the content of the symptoms shown. We cling to the illusion that neurosis is caused by circumstance and so more accessible to cure, to hide the brutal truth of heredity from our patients and ourselves. Millons are exposed to adverse parental influences and exposed to shocks. Only a proportion succumb to neurosis. This latter fraction is attributable to predisposition.

The increase in neurosis is so truly appalling that it may be a fatal factor inducing national decadence. In fifty per cent. of individuals the family history, covering no more than three generations, will provide at least one indisputable case of neurosis. This is a conservative estimate.

Within the last ten years Ashby and Rudolf addressed a questionnaire anonymously to a representative group of one thousand five hundred people. These latter were asked to give information as to the existence of " severe nervous disorder " in their families. About four hundred answered. Of these twenty-five per cent. admitted to the existence of severe nervous disorder. Including such conditions as alcoholism and eccentricity the number went up to fifty per cent. Now it is obvious that the people answering the questionnaire would be inclined to omit references to mild neurosis. The figure of twenty-five per cent. therefore almost certainly includes chiefly cases of psychosis, severe neurosis and mental deficiency. It is also reasonable to suppose that those who failed to answer were from families steeped even more liberally in psychopathology. This is a graphic illustration of the alarming contamination of society with mental abnormality. A similar questionnaire conducted in Bavaria on a larger number of patients gave approximately the same result.

We have therefore three huge categories of disease, all affecting the mind, all rapidly increasing, all constituting a grave social problem and as a whole all stamped indelibly with the imprint of heredity. Some of these diseases are associated in the same family history with organic cerebral damage, others with abiotrophic neurological disorders. It

seems then that we have irrefutable evidence that all these conditions involve a transmitted reduction of vitality in the central nervous system. Their victims inherit what we call neuropathic or psychopathic traits.

Heredity looms large in the strain diseases. Transmission is often direct. Rheumatics beget rheumatics, diabetes often breeds true. There is also what we can call cross transmission. Cases of peptic ulceration beget rheumatics and vice versa, etc. One generation often contains both rheumatics and duodenal cases. Families tend often to pairs of diseases. Rheumatism and peptic ulcer run together. So do diabetes and arterio-sclerosis. It seems that in this group of diseases there is as much a tendency to transmit a liability to strain diseases in general as to transmit one disease in particular.

But there is an even more important fact to be elicited from the study of heredity in strain conditions. We have ascribed these latter to a neuropathic tendency, implying by this term a meaning far wider than that which it conveys at present. These chronic constitutional diseases are closely associated with neurotic conditions. Neurotic subjects beget rheumatic children and vice versa. In one generation rheumatic and neurotic conditions are found together with amazing frequency. Peptic ulceration is also associated with neurosis with great commonness in the same families. (In this connection the duodenal type is always more common than the gastric.) Very often families are equally saturated with neurosis, peptic ulcer and rheumatism. In general the study of family histories reveals saturation with both neuroses and chronic constitutional diseases.

We have seen how these chronic physical diseases have derivations in strain and chronic anxiety. Their amazingly frequent association, in the same family, with psycho-neurotic conditions strengthens my belief that they are definitely neuropathic in derivation.

What we have said of the connection between neurosis and these strain diseases applies also to the psychoses but to a far smaller degree. Arterio-sclerosis is the commonest association

of psychosis in morbid families. It seems in general as though the physical diseases related to pyschoses tend more to those involving organic damage to the higher centres. The physical diseases associated with neurosis are more attributable to flaws in the autonomic-endocrine chain.

Asthma, migraine, epilepsy, alcoholism, mucous colitis are also encountered in these neuropathic families. Migraine, asthma and colitis occur mostly in stocks where the psychological abnormality is found mostly in the form of neurosis. Epilepsy is more an association of psychosis. Alcoholism occurs in both varieties. I must emphasise that in speaking of predominantly neurotic and psychotic stocks I am conveying only the broadest implications. It must be realised that neurosis and psychosis are often found together in the same stock.

It may interest the reader to know that a psychiatrist of my acquaintance has for years occupied himself in what is probably a unique technique in medicine. He forecasts disease, without the aid of astrology. He entered psychiatry via another speciality and for years ran a psychiatric institution. His resident patients very often included more than one member of the same family. His sick personnel was recruited from remarkably few families. He studied the medical history of their forebears. He was well acquainted with those members of his families who had no conspicuous psychological disorder. This is not black magic. Given a few families, and sufficient time, the tipster principle in medicine can become a science. We forecast the nature of individual diseases from premonitory symptoms. The same initial symptoms are often common to a multitude of ailments. In the future, with more knowledge of the patient's personality in its medical aspect, with a previous and family history regarded from the same viewpoint, we should be able to tell what ills will arise from undue stress and privation with at least the same facility with which we now indicate the coming malady from prodromal symptoms. We do this already in mental diseases. We discover in the over-scrupulous, too-conscientious and self-depreciatory nature the raw material of melancholia. Symptoms are more vague and classification

more difficult in mental than in physical diseases. Given the right viewpoint, our prophetic faculties will one day be widely and usefully employed in physical illness.

I have quoted no figures as to the concurrent evidence of neurosis, psychosis and chronic physical illnesses in the same family. I could produce the most convincing evidence. But I have deliberately tried to delete statistics from this book, because I wish above all to avoid the introduction of mathematical conceptions into the study of medicine from the angle of personality. In relation to this latter study, the science of statistics, at the present stage, is a complete anachronism. If the reader will search the medical literature of the Greek era of personality study he will find nowhere a technique of writing in the current mode : " 250 cases were investigated. Of these 75.33 per cent. showed, etc. etc." But to avoid the charge that I am of an evasive and fabricating nature I ask any doctors who read these pages to keep careful family histories for a couple of years, in cases of the chronic constitutional diseases. At the end of that period, and not before, I am prepared to take castigation for my errors. I do not think I will suffer much. It is not that I claim for myself unusual powers of perspicacity. It is just that most of us can question, record and do simple feats of addition.

It may be asked why such obvious associations were not noticed before. The answer lies in the compartmental viewpoint which prevails in medicine. In taking family histories general physicians tended to brush aside anything pertaining to neurosis. It contained no meat. On the other hand, psychiatrists give no ear to physical conditions. They find them coarse and repellant.

Diminished Resistance of the Nervous System

In our group of strain diseases there is a hereditary factor expressed in physical disease. One is forced to the conclusion that the vehicle of transmission is the central nervous system. In the three other groups of hereditary diseases, mental defect, mental disease and psycho-neuroses,

the symptoms are referrable to the central nervous system. Neurotic and psychotic signs are found in strain families. These factors convince me that in all hereditary diseases the taint is primarily transmitted through the central nervous system. These hereditary nervous conditions are those which have risen vastly in incidence in the last century. During the same period the tempo of life has quickened. Man is more chronically anxious. Such psychological factors can only be received and transmitted by the central nervous system. We realise that worry and increasing strain cause many illnesses. We do not reflect sufficiently that the nervous system must always withstand the first onslaught. Before strain induces one or other physical illness its noxious stimuli have first to be translated into noxious emotion. We have seen how this latter, expressed through the autonomic and endocrine systems, induces different diseases according to varying flaws in the endocrine autonomic pattern.

This neuropathic disposition in diseases considered physical indicates that the vitality of the nervous system and its resistance to disease is steadily diminishing. This is an observation which common sense should have forced on us from study of the rising incidence of mental and nervous diseases alone, without consideration of the effects of neuropathy in other physical disorders. That it has not done so is due to our non-recognition of the personality factor in disease. Physicians will incline to decry this. It implies hereditary predispositions. They assume that consideration of these leads to therapeutic nihilism. It is a fallacious standpoint. Pain and suffering have still to be alleviated. There is constructive work to do in educating patients to make the best of their raw material. This they can only do by acquiring self-knowledge, particularly such as pertains to the recognition of their own blind spots.

There is further evidence of the increasing vulnerability of the nervous system. The only infections whose incidence is steadily rising are those affecting the nervous system, *e.g.* anteriopoliomyelitis, cerebrospinal fever, etc. Organic catastrophes affecting the brain, cerebral haemorrhage and

embolism display an increasing association with psychological disease in tainted families. So also do cerebral tumours. The growth of psycho-analysis, and psycho-therapy in general, in insisting, first emphatically, now tremulously, on the exclusively psychogenic causation of the neuroses and psychoses, has led to disregard of the organic nervous diseases with which in the same families these psychological conditions are associated. Organic nervous conditions, like cerebral tumours, now show a tendency to be more directly transmissible.

There are certain conditions, like migraine, traditionally associated with intellectual occupations. It is strange that we fail to realise that intellectual activity is a causative factor in such conditions. We fail to draw such conclusions because they are too obvious. It is our besetting sin that we prefer minutiae to broad issues.

It seems possible that the first indication of a neuropathic tendency in stock previously healthy is the occurrence of the physical strain diseases, and that the first sign of the crumbling structure is found in the autonomic nervous system. Liberal contamination of a family tree with these strain diseases may result in neurosis in subsequent generations. This hereditary variation from physical to nervous morbidity is seen particularly in rheumatic stocks. Rheumatic subjects often beget highly strung, neurotic children.

The above contention is tenative. I have not enough data to enable me to dogmatise.

How has the nervous system become more generally vulnerable? In great part we have dealt with this already. The strain factor has led to its being bombarded excessively with noxious stimuli, producing over long periods abnormal emotional reactions. There is some evidence that stocks tend to spontaneous biological degeneration. I am not convinced that races and civilisations of man tend to such a natural and generalised abiotrophy. If they do, it is only reasonable that the prime focus of decay should be found in the nervous system. Through its sensate and perceptive capacities it binds us to our world. When we decay biologically we do so in relation to

the world without. Our unit of life fails to maintain the pace demanded by the life force. Our failure must therefore be written and recorded in our nervous system.

I think the simple factor of over-use is leading to decay. This fact operates in other medical conditions. The roadman who swings his hammer too well and too long gets arthritic shoulders. In those who ride too much the adductor tendons ossify. Writer's cramp is interpreted often, and rightfully sometimes, on psycho-analytic lines, but it *does* occur mostly in clerks.

I do not wish to flatter the human race by suggesting that we use our minds too much. (Our acts are dictated by impulse and instinct. Our opinions are formed from prejudice. We do not reason. In Chapter Seventeen we may even see that we would benefit from thinking, always supposing that we can reacquire what is rapidly becoming a decaying art.) I imply merely that our activities are too exclusively in the mental sphere. Without doubt there has been for the majority, in the last century, a complete reversal of the nature of employment. The proportion of people working with their hands is inconsiderable now compared with its incidence in a former age. The number of persons employed in clerical and routine sedentary occupations has enormously increased. Mind is used instead of muscle and like muscle. In these classes morbidity may be induced by the mere fact of over-mentation in constitutions not innured to its rigours. It is a biological law that the most recent anatomical and physiological acquirements are always the most sensitive to strain and prone to disease. In man the nervous system is our most vulnerable, most recent, evolutionary acquisition. It is therefore most susceptible to decay. It must be remembered that large numbers of our clerks, time-keepers, etc., would have been employed four or five generations ago as ploughboys. They have acquired a little social delicacy and pseudo-refinement. They have gained little in terms of life. Their minds run in laborious straight lines like their forebear's ploughshare. Unfortunately, the mind is more sensitive than the biceps.

We will study the influence on health of concepts of

purpose. We will see that the assertive and ambitious urges of men are themselves glorified with the name of purpose. The means is the end. Except in the immediate crisis ambition has ceased to be expressed by the crude physical violence of terrorism, theft and pillage. Man achieves reputation by cunning devisals in business, by being acknowledged as a leader in his profession, etc. He apes the robber baron—with his brain. This, more delicate, in its finished form more lately acquired than his biceps, is far more vulnerable than his musculature. It is bad enough to use our minds like muscles. It is worse still to use them as weapons of offence.

Our standard of values encourages our mental excesses. We estimate greatness in men according to their proficiency in mental gymnastics. This is not surprising considering the degree to which our social system is determined and maintained by diseased natures. Men are valued according to the greatness of their intellect. Intellectuals are too often dyspeptic and neurotic. To be a savant and a neurotic is to be a failure as a total man. It is bad for the subject and bad for the race. Men are valued according to their output or to the crudest computations of social usefulness. Our politicians are those on whom we bestow most readily the description 'great.' They deserve something seeing how much mental energy is required to impart a little feverished freshness to their stock-in-trade of platitudes. The attainment of all these aspects of eminence involves the high pressure expenditure of mental energy. (The qualitative aspect of the mental processes involved is largely immaterial.) But we fail entirely to estimate men according to their gift of balance and to the degree to which they have achieved a harmonious adjustment to life. Great is also a term very easily bestowed in our present lifetime. Insecurity comforts itself sometimes with the pomp of power. We must be educated to stop our ridiculous and hysterical adulation of the Napoleons of business and finance. It is the adulation of the trivial for the tremendous neurotic. We should not discourage personal distinction. We should alter our concept of it.

It cannot, however, be denied that the view is still widely held that mental work is far less arduous than physical. This view is widely held in the lower classes. It often determines the desire of artisans to get their sons into black-coated jobs. The modern artisan weighs the stressful nature of his work in terms of crude output. He cannot see that in making his son a school teacher he is loading him with factors of responsibility and competition such as he himself has never been asked to support. The working man's opinion on the less arduous nature of mental work is supported in some wise by the physiologists. The metabolic requirements of mental are less as compared with those of physical activity. That is a most dangerous view. It evades the fact that the metabolism of the nervous system is not fully understood. It contradicts all clinical experience and rational observation. We are safer looking back on the ill effects of a century's increased mentation.

Arguments pertaining to the health of the so-called intellectual life are very fallacious. We are reminded of the longevity of University dons. We should consider the length of their vacations. At Oxford and Cambridge the working year is twenty-four weeks. Working hours are short. It is an irresponsible existence. Authors often live long. An author has not to work to schedule. Teaching, the civil service, are pensionable callings. Pensioners who retire in middle age are apt to live long. They retire at an age when they are able to adjust, without anxiety, to a reduced tempo of living.

Another factor inducing morbidity in the nervous system is the antagonism of our age to sedative regimes and methods of therapy. Our nervous systems are bombarded with an ever-increasing salvo of exciting factors. When we are exhausted we rely irrationally on further excitants. We habitually imbibe four drugs with an excitant action. Tea and coffee are undoubtedly stimulants. Alcohol acts as a depressant on the central nervous system. Depressants and sedatives are not synonymous. The practical point is that alcohol is consciously felt as a stimulant, partly in virtue of its circulatory

effects. It induces more buoyant feelings. It therefore encourages a tired personality to further excesses. Its depressant action on the nervous system only adds to its deleterious effects.

Our fourth noxious drug is nicotine. It is popularly held to be a sedative. This is quite erroneous. It is actually an excitant. Puffing at a pipe or cigarette is the sedative factor in smoking. It is an action analogous to the farm labourer sucking a straw or the child sucking his thumb. Many pipe smokers suck for hours at their unlighted pipes. Even this satisfies. All probably derive from the peace and satisfaction attendant on sucking.

The excitant action of nicotine is not experienced by normal individuals. The drug has not sufficient immediate potency to induce appreciable effects in average doses. If the smoker is subject to imbalance of the vegetative nervous system the exciting effects are soon noticed. Two or three cigarettes at short intervals may induce tachycardia, mild sweating, slight dizziness and epigastric sensations. These symptoms of themselves induce restlessness. In addition, nicotine has a more specific exciting function. The harmful effects of smoking in duodenal ulceration are due to the effect of nicotine on the autonomic system. To minimise the noxious effects of nicotine is as ridiculous as the efforts of those who regard it as causative of most human ills. The brothers Mayo never operated on duodenal ulcers without first extracting a pledge that patients would give up smoking. Those who find no harm in smoking have often tried unsuccessfully to give it up.

I am not arguing that we stop alcohol and smoking. I am very fond of tea and coffee. I merely state indisputable facts as to the universal employment of these drugs and their toxic effects.

The prescribing of tonics is often amazingly illogical. I refer to drugs with a directly stimulating action like strychnine, kola, etc. (There is something to be said for drugs like iron and arsenic. At least they aid the oxygenation of the tissues.) It is justifiable to give tonics of the strychnine variety to patients

of neurasthenic type who tend always to feel exhausted without due cause. It is very illogical to give such treatment to patients suffering from fatigue from more concrete causes. The indiscriminate whipping-up of exhausted anxiety cases by such methods is deplorable. Such techniques merely cover the symptoms with a hectic disguise of counterfeit well-being. So treated, the morbid process may well manifest itself in the ready alternative of physical illness.

The drug treatment of neurotic conditions, states of fatigue and vague functional disorders is often conducted on a deplorable hit or miss basis. The patient is often given a sedative or a tonic according to the mood of the doctor. He may try both in turn, in which case he usually contrives to employ the right one at the wrong time. If a doctor is so constituted as to consider tonics and sedatives as mutually replaceable, his natural facility in error will usually enable him to time his treatment wrongly. It should be a general rule that in all cases where the factors of anxiety and exhaustion are marked treatment should be on sedative lines and tonics of the type mentioned should be rigidly eschewed.

To the student of medical human nature one of the most amazing phenomena to be observed in England is the national repulsion to taking sedatives. These latter are described by the patients as drugs. Those so describing them impart to their definition an ominous significance. The rest of the armoury of drugs we employ are merely medicines and therefore automatically beneficial. I have heard on too many occasions, from patients in urgent need of sedatives, the pathetic plea that I should not prescribe them. This is an attitude determined to a large degree by the ideas prevalent in our social system. Our purposive and striving philosophy regards the taking of sedatives as anathema. It is absolutely indisputable that to a large section of the general public, and to a large proportion of the relatives of neurotic patients, the prescribing of sedative drugs is regarded as a preliminary to moral decline. Yet the better sedatives, rationally administered, cause far less tissue damage and derangement of visceral

and nervous function than do the four noxious drugs so many of us take automatically every day. The deleterious effects of alcohol, even in moderate doses, are indisputable. Coffee loads the liver and increases the irritability of the nervous system. Moderate tea drinking does little or no harm. Excessive tea drinking impairs digestion, and causes palpitations and other functional diseases. Tobacco increases acidity, is a strongly contributing factor in duodenal ulcer, increases the rate of the heart and disturbs its rhythm.

Under the heading of rational sedatives I include such drugs as Adalin, Bromide, Valerian, Sedormid and Luminal. Stronger sedatives are used far too much and in too heavy dosage in psychotics, where the regime of any well-run institution which uses fresh air, rest, baths and occupation with any persistence, will induce beneficial results in most cases with minimal doses of sedative. This idea that the use of sedatives is most justified in well-developed and chronic cases of mental disorder is very erroneous. As indicated, other methods give better results. In addition, those mental cases in most need of sedatives, like the fulminating cases of agitated melancholia, do not respond to these drugs except in such doses as require the closest supervision. The major usefulness of sedatives is in the ambulant neurotic and in chronic cases of what we will still, for the sake of convenience, call functional disorders, where excessive cerebral activity encourages the maintenence of symptoms. Examples of such conditions are the prodromal phases of duodenal ulcer, mild degrees of hyperthyroidism, asthma, migraine, etc.

It is very difficult to persuade people that the careful use of sedatives does not cause a quantitative or qualitative depreciation of mental activity, either immediately or over a prolonged period. Such a drug as Adalin, by diminishing purposeless and superfluous restlessness can increase the patient's intellectual output by stabilising his powers of concentration. In reasonable doses it can be given before examinations without impairing the patient's chance in those ruinous preludes to distinction.

Even in our *natural* preference for certain types of drug—considered apart from what the doctor prescribes—the factor of personality plays a part. It induces peculiar reactions to those varieties of drug towards which we exhibit an ethical or psychological antipathy. Many Orientals, with their fatalistic philosophy of acceptance, can smoke opium with impunity. The Englishman rapidly becomes a wreck by the same practice. It is not a question of gradual habituation in the Oriental and violent overdosage in the Englishman. The Easterner smokes opium as the Englishman smokes tobacco. In either case there is no piecemeal regulation of dosage except such as is necessitated by such brief and early undesirable effects as nausea after smoking one's first few cigarettes. Again the Westerner usually approaches opium cautiously. He does it just for the experience. I do not know if nicotine has an alarmingly deleterious effect in orientals. Certainly many oriental sects are morally repelled by cigarette smoking and alcohol.

Neuropathy and Digestive Function

It is justifiable here to mention a particular aspect of nerve strain and over-intellectualisation. Where these factors reveal themselves in physical conditions they seem to be choosing the stomach and duodenum as their main channel for the expression of morbid symptoms. Of all chronic diseases duodenal ulcer is rising with the most alarming rapidity. It is one of the principal Army medical problems of this war. Not only duodenal ulcer but dyspeptic conditions in general are achieving a high incidence in the fighting services. It is totally fallacious to ascribe these conditions entirely to Army diet. Dieticians talk as though the diet of those classes which largely constitute the rank and file of the Army were chosen in peace-time by the pooled opinions of the chef of the Savoy Hotel and a posse of dietetic specialists. The conditions incidental to warfare are responsible to a large extent for the flare-up of dyspeptic symptoms. There is a high incidence of dyspeptic conditions in men exposed to dive-bombing and

other of the worst hazards of modern war. Personal observation leads me to believe that the commonest somatic accompaniments of aerial bombardment are symptoms referable to the epigastrium. This includes, of course, observation of patients additional to those admitted to hospital for shock effects from bombing. The problem of duodenal ulcer and the closely allied conditions of hyperchlorhydria and pyloric spasm is a particularly grave one from the point of view of those directing the activities of the fighting services. Many of these duodenal cases are obsessional types. In virtue of this they are highly conscientious, with a capacity for getting things done and with considerable drive which enables them to get not only the most out of themselves but also from others, unfortunately at their own expense. Many competent young N.C.Os., important component vertebrae in the backbone of the Army, are of the duodenal type. Their discharge from the Army is something of a tragedy.

R.A.F. pilots are subject to duodenal conditions. Piloting a plane is a job which above all demands, and mortifies, the duodenal types. It is deadly accurate work to a ruthless time schedule. Many metropolitan policeman succumb to this condition. We have seen before that it is a particular affliction of doctors and bus drivers. Duodenal ulcer is becoming a scourge. It affects particularly men of intelligence and drive, doing responsible work, sufficiently intelligent to appreciate responsibility, and not given to the conscious expression of anxiety in the form of neurosis.

We have considered previously the relation between the duodenum and pituitary activity. There seems a more general connection between mental activity and dyspepsia. The dyspeptic intellectual is a common type. Many soldiers breaking down from dyspepsia in the Army are engaged in peace-time in clerical and similar occupations. Indigestion of a type adequately covered by the old-fashioned term nervous dyspepsia is very common among students working for examinations, teachers, etc. Symptoms usually include heartburn, oppressive feelings after meals, flatulence, hunger between meals and

often constipation of the spastic variety. It is quite inadequate to ascribe nervous dyspepsia lock, stock and barrel to complexes, generated by the imminent examination. Other channels for the expression of anxiety are always available.

There are two or three factors pointing to the fact that excessive mental activity alone affects digestive function, particularly in inducing dyspepsia of the acid variety. Sedatives in general have an excellent effect on dyspeptic symptoms. They should always be given in genuine cases of indigestion. Their effect is particularly beneficial in symptoms referable to the duodenum and in cases of hypertonic stomach. Barbiturates are particularly useful. They have an especially inhibiting effect on acid production. This effect is, I think, to be ascribed to their sedative effect on cerebral function.

The subjects of acid dyspepsia and hypertonicity are often greatly benefited by exercise. The latter is a physiological technique for reducing acidity. It applies to the stomach and duodenum as well as elsewhere. There are several arguments favouring this view. My main argument is based on clinical observation. Much harm is done to duodenal types by restricting their exercise over long periods. Such patients need mental and physical rest. This must be complete in the acute stages. It should apply always to a considerable degree. But what physicians are slow to realise is that rest, for the duodenal type, does not necessarily imply the quantitative reduction of physical or even mental work, even though this is very desirable. The most essential factor is to delete, from the subject of this condition, his tendency to press hard, to beat the clock in all he undertakes. A duodenal subject, prepared to cope with this defect in his personality, has a better prognosis as a doctor than one who, uninstructed in or unconvinced of this psychological flaw, follows some relatively sedative calling like market gardening.

We have discussed posture in duodenal and hypertonic states. The cramped position often associated with intellectual occupations may be a contributory factor. The subject often works sitting up at a desk or table. When he is tired and his

lumbar spine will no longer support him he flops forward with bent shoulders and extruded abdominal muscles. We must remember that physical rest in duodenal and hypertonic cases is largely beneficial because of its effect in the at any rate temporary correction of posture.

In the next chapter we shall study more reasons for this growing vulnerability of the nervous system. We shall be dealing with health. Health is a subjective experience. It is essentially a complex of sensations. It is expressed through the nervous system. Dysfunction of the latter expresses disharmony which in turn begets that generalised paraesthesia we call malaise.

Book Three

Social, Spiritual and Sensuous Factors

Chapter Ten

Social Pathology

THE strain diseases are going up. The adjustment of the strain factor is the major problem in medicine. Infections are less. We are told we are healthier. Infant mortality is down. This paves the way for statistical triumphs. Statisticians are thus enabled to give false conceptions of our life prospects. A century ago a large proportion of children died in the first two years of life. Today the vast majority survive. This does not indicate increasing health. We must beware of subtle finesse with rows of figures.

Strain conditions like peptic ulcer, hyperthyroidism, rheumatism, arterio-sclerosis, are rising in incidence. They occur at an earlier age. In our day their symptoms are ameliorated by the newer drugs. But the addition of a year or two of life to chronic invalids is not necessarily a sign of a country's increasing health.

Two or three centuries ago the infections took a greater toll of life. Some escaped them. Some achieved improbable recovery in spite of treatment. These survivors were far less liable to the chronic conditions which are our modern problem. It is sometimes argued that the incidence of the latter was just as great but was not diagnosed. This is arrogant and fallacious. Diabetes, the anaemias, duodenal ulcer are diagnosed with the aid of laboratory methods, but to a large extent the recognition of these strain diseases depends still on clinical observations. It is chiefly in the bacillary infections that laboratory diagnosis is of first importance. It is erroneous to assume that the doctor of a century ago, trained to depend on his clinical sense, should fail to diagnose diseases the recognition of which depends chiefly on the elucidation of signs and symptoms. At least he would do as well as the test-tube doctors of the current mode. Many chronic diseases derive their names from the physicians who described them. Basedow, Parry, Heberden,

Hunter—their disease descriptions are enduring monuments of clinical insight. Were they so liable to faulty diagnosis? Surely cardinal errors in observation are more likely to be committed by Dr. So-and-So, writing in our journals, "Woman, 58. Married. Protestant. Thin. Blood sugar equals . . . " without producing any cardinal fact derived by clinical methods.

The enthusiastic sanitarians who claim we are approaching a medical Utopia, completely neglect the fact that there is among us a vast incidence of neurosis, which escapes classification among the disabling and mortal diseases and which nevertheless causes a vast amount of misery, much loss of time from work and a debilitated national outlook. Large proportions of the cases afforded symptomatic treatment by panel doctors, and classified under the heading of some physical disease, are neurotic or functional disorders. Further, neurotic conditions and the exposure of vulnerable personalities to conditions tending to neurosis may result in the production of physical disease, grave as to degree and nature.

Absolutely and relatively these chronic diseases associated with stress are increasing steadily. We have not yet defined the origin and nature of this strain. There are several categories of causation. We will deal here with some social and industrial factors in its aetiology.

Disease and the Rate of Living

The increasing pace of modern life is not a journalistic cliche. Every profession has seen an astounding quickening of tempo in the last half, or even the last quarter of a century. The doctor travelled slowly and laboriously in gigs and received his messages by hand. He was not yet plagued with the shrill, ominous clamour of the telephone. The lawyers and business men wrote out reports slowly in their own script. They were not geared up to a higher potential by the typewriter and the blonde stenographer.

There is a clear relationship between the increased rate of living and our tendency to certain varieties of disease. The industrial revolution induced into our lives greater tension,

speed and competition. Since the introduction of that era we have also seen a vast increase both in neuroses and our chronic constitutional diseases.

Medicine, in general, has wagged its head lugubriously at this rising tempo. It has made an additional gesture. It has washed its hands of the subject. Psychiatry should have offered more help and guidance. It has failed signally to stress the harmful effects of our rate of living. The implication in much psycho-analytic teaching is that such factors do not matter. The argument proceeds as follows. A man is an obsessional neurotic. He therefore works hard and drives others hard. He will do this, be the pace of life round him either slow or fast. He insists on a crowded day, for himself and for those he governs. This argument conveys that man determines the conditions. Certainly this explains to a large extent the type of mind which has hotted-up the jazz rhythm of this century. But it only describes the origin of a small percentage of these fast livers. A few neurotics may set the pace in any society. The community as a whole does not wish to follow. The obsessional employer may contrive an impossible time schedule. The employee will only follow it with reluctance. It is from the majority of reluctant camp-followers that we recruit many of our neurotics, dyspeptics and other morbid types.

Psychiatry emphasises the influence of environment in inducing disease. By environment it means chiefly familial conditions and vocations unsuited to particular temperaments. It is apparently unconcerned with the fact that the structure of society as a whole ordains that the mass of men are driven too hard. It is odd, tragic and damnable.

The direct connection between morbidity and increased speed in industry is shown by the operation of schemes for increasing output. Peptic ulceration is the commonest type of casualty from such measures. In one factory where such a system was introduced, the incidence of duodenal ulceration resembled an epidemic.

The irrational condition of industry has led in recent years

to the manufacture of a new category of workmen called 'progress chasers.' The function of these men is to harry those under their charge in order to ensure the maximum output. They constitute a mild and unwilling Gestapo. The job is mostly unpalatable to those so employed. It is not wholly pleasant to make a profession of nagging. Men so employed accept the conditions because it implies promotion and is better paid. The sickness rate goes up under the slave-driving aegis of the progress chasers. But the latter themselves often provide a higher casualty rate than their subordinates. They go sick from dyspepsia, peptic ulceration and anxiety and obsessional neurosis. (It must be admitted that many are obsessional types to start with. The obsessional possesses abnormal drive and is thus selected by his still more obsessed employer to serve as lord of the galley.)

I do not wish these paragraphs to serve as an argument against any particular political system. We are concerned chiefly with the wider issue of disease and the whole social system such as existed in Western Europe before Germany revealed dramatically her predilection for the primitive. On the surface the facts adduced would appear to be an argument against capitalism. They well might be, but the question requires more careful analysis. It would be well if figures were available from systems alternative to capitalism. Soviet Russia has attempted to produce a caste of master workmen. Personnel is recruited by estimation of production capacity. It is probable that this attempt to manufacture a proletarian aristocracy is accompanied by as high a morbidity rate as that which obtains in capitalist states. We know little of Russian medicine. It is as inscrutable as the Kremlin sphinx.

Even our pleasures have gained in tempo and intensity. As doctors we prescribe golf for harassed business men. We see them intensely concentrating on perfecting their style, reading books on the subject and regarding the loss of a game as something catastrophic, like the breakdown of a deal. Games have become a sad, slavish industry. Men use both games and work as a narcotic to inhibit thought. They

mutilate pleasure with the desire to excel. The increased tempo and intensity of modern athletics is literally exemplified with dramatic force by the continual breaking of records we witness year by year.

Organised games have ceased largely to be the relaxation of the amateur. They are the livelihood of the professional. They are pleasures infiltrated with the business principle. One day they may cease entirely to be pleasures.

The trained athlete is a most vulnerable type from both the physical and mental standpoint. In youth, in the period of active achievement, he is prone to neurosis and functional disturbances, usually involving the stomach and duodenum. Again, at a relatively early age in middle life, he tends to a recrudescence of psychological symptoms. This is because at this age he undergoes a kind of spurious and catastrophic climateric. He finishes his life-function early. It is not possible, except in games like cricket, to continue top-class athletics beyond the age of thirty. Till then he has lived to the dictates of unnatural speed. He cannot adjust physically. His muscles deteriorate, requiring the stimulus of furious energy. He goes to fat and his heart gets flabby. He develops arterio-sclerosis from the excessive exertions of his youth. He deteriorates psychologically. It is only rarely that in intellectual or business spheres the trained athlete is able to force, or even to maintain the pace. Many athletes take to drink in middle life in order to regain in fantasy the hectic speed and the stressful endeavours of their youth.

It has come to a pretty pass when the athlete, in the proper sense a product of the health and sanity of Greece, is, in our modern civilisation, a neurotic, a poor adjuster to the several requirements of the art of living and prone, too, to premature decay.

The increased rate of living as causative of certain varieties of disease is of itself a subject so vast that it requires a whole volume for its adequate discussion. We will deal next with further adverse factors arising more specifically from increased high pressure in commerce and industry.

Industrial Factors in Disease

The last few decades have seen a vast increase in mechanisation in labour. This involved at first what appeared to be better conditions. Pay was considerably higher than that received for work on the land. There were greater social opportunities. The worker was further rewarded with the glamorous and inexhaustible delights of towns like Sheffield and Leeds. He saw their smoky towers and sordid tumuli from his slum attic. He and his offspring paid for this hectic splendour. They paid in rickets and tuberculosis. They paid in other diseases prevalent where enlightened progress implies an increased dosage of disease and darkness and degradation. Having not yet acquired that variety of immunisation which succeeds repeated drenching with noxious agents, the newcomer to industry was further tortured by diseases specific to certain industries. Silicosis, anthracosis, potter's asthma, cataract in furnacemen, and a whole category of new diseases, lent eloquent testimony to the march of progress. Enlightened opinion provided suitable compensation and improved conditions. Such diseases are less than they were. The sanitarians are therefore lost and bemused in a cloud of self-congratulation. The men at present working under such conditions are derived from a stock which has for some generations been drenched with silica, coal dust and particles of tin. They have acquired a degree of immunity. It is odd how often the gods of hygiene, lost in contemplation of their own triumphs, can forget, when convenient, the essence of their own teaching. They are, like Hitler, illogical but always infallible. The miner still goes sick. He now runs more to neuroses expressed in hysterical aberrations of physical function. He has developed a flair for traumatic neurasthenia. The neuropathic tendency which is the basis of most disease will out somehow and in some places. The miner, the tin plater, have altered their pathways of discharge. As we have seen, they acquire the diseases permissible in their station.

I do not propose to deal with the hazards of industry from

the standpoint of occupational diseases, or to recapitulate the sordid human pathology where malnutrition and records of slum conditions are the chapter headings. This has been adequately dealt with elsewhere. It is the theme of political pamphlets attracting enormous attention. It is the subject of careful scientific research, occasionally appreciated when its findings agree with the current political mode.

There has been a particularly enormous acceleration in mechanisation in the last twenty-five years. This has been one of the major causes of unemployment. One man, with instrumental aid, now performs duties formerly allotted to half a dozen. (I do not refer to war conditions.) The industrial ideal is a super-skilled workman with a dozen master-switches replacing an equal number of men. This has had deleterious effects on both the skilled and unskilled. The former are overloaded with responsibility. The effect on output of even small degrees of inefficiency is profound where a man has much complicated machinery to handle. He is keyed up to a state of unnatural tension. He becomes a casualty. Employers are killing the goose that lays the golden eggs. They are destroying the class they are trying to create. They are creating a horde of neurotics and raising the incidence of those functional and organic diseases most easily traceable to emotional disorders. The skilled workman, where he produces a physical disease, is particularly prone to duodenal ulcer. This ailment is a kind of first physical sign of excessive mentation (see Chapter IX). It is the first drawbridge lowered between psychological and physical disease.

The effect on the unskilled is just as bad. In the last thirty years there has been a steady drift from the land. Agricultural workers, men reared in the slow, laborious technique of the farm, cannot maintain the pace required in industry. This is no criticism of their intelligence. The land-worker is naturally and necessarily slow. A quick, tense farmer or market gardener is a bad one. One of the enormous advantages of working on the land is that slow, steady work is not only beneficial to the worker's health but an economic

asset both to himself and his master. He gets better results and is more useful from going his own pace.

Besides this, to assume responsibility for complex machinery when you are not machine minded, is a considerable problem for country-bred employees. Certainly farm work is being increasingly mechanised, but the farm worker gains experience without undue hurry in a limited number of mechanical devices, like the tractor. It should not be forgotten, too, that, owing to the stagnant condition of agriculture in recent years, farm workers have often not left the land for industry till middle life, when their powers of adjustment to new conditions have become inelastic.

The diseases suffered by the unskilled rank and file are somewhat different in nature from those afflicting their more accomplished brethren of the non-commissioned classes. The unskilled tend to break down by increased incidence of the strain diseases and their development at an early age. They are also more prone to rheumatism and less to duodenal ulceration than the skilled category. Where they suffer from neurosis they tend chiefly to those varieties which ape physical disease and express themselves through quasi-physical symptoms. We therefore see in this class of workmen paresis, paralysis, tremors, etc., of hysterical origin. Neurasthenia, in the strict sense of the word, rather than the whole continent of afflictions applied in the panel certificate usage of the term, is also common. Neurasthenia implies chiefly the existence of exhaustion without tangible organic cause with, for a neurotic condition, a relatively limited development of additional symptoms, of which the most characteristic is a feeling of pressure in the head. Depression with retardation, *i.e.* the least complicated variety of melancholia, also occurs.

The depression of trade in the last two decades has resulted in men changing their occupation in middle or late life. This is a factor of immense importance in producing morbidity. I am not referring merely to farm workers going over to industry. The reverse process is equally conducive to sickness. Men of fifty cannot with impunity exchange the relatively

delicate though routine manipulations required in many industries for the crude demands of physical labour. This applies even more so in shop-workers cast out of employment, often by the merging of small into greater businesses. It tends to occur wherever men leading routine, sedentary and relatively sheltered occupations lose their employment and are reduced to physical labour. The hutch-dweller cannot, in middle life, convert himself with impunity into a hunting animal. A very common consequence of such an attempt is arthritis, but any of the strain diseases may be induced, though duodenal ulcer is not common. In addition to the strain diseases we have most commonly quoted in this book, cholecystitis may also occur.

Change of Occupation as a Cause of Disease

Change of occupation is not sufficiently appreciated as a factor in the aetiology of disease. Many doctors take the most careful personal and family histories. Quite often they consider the patient's employment. They do not inquire as to its fluctuations. They do not investigate changes from day to night work, or from regular wages to payment on a piece basis.

Of course change of occupation is not, in these cases, the sole cause of disease. I do not claim an exclusive aetiological importance for strain and chronic anxiety in general. We have to consider, too, innate tendencies to autonomic and endocrine dysfunction. Superadded infection may also be a factor. Throughout medicine you will never find irrefutable evidence that one particular factor alone and unaided causes one particular disease. Even in what is perhaps the most specific of all infections, diphtheria, the assumption that the Klebs-Loeffler baccilli is the one factor causing disease transgresses against the fundamentals of logic.

Why does it lodge in particular throats? The throats of the victims of diphtheria are not innately weak. Why do some who harbour the parasite succumb? Why do others escape unscathed? Why do attenuated organisms cause disease in some? Why do virulent strains fail to infect others? The

answer is compressed in the blessed shibboleth immunity. What, in all these circumstances, decides the relative degrees of immunity? The bacteriologists' answer is that they depend on the relative development of antitoxins in these different cases. And what determines these variations in strength, at any rate in those other than of infant years? The degree of virulence of the infecting organism. We are thus back where we started. This type of explanation is self-contained, cosy and very satisfying to its exponents. It is the suburban villadom of medicine. To doctors who, on the one hand, have a more philosophic outlook, or who, on the other, practice the broad outlines of medicine in the sane milieu of general practice, it is a visionless and pitiably restricted view. It has the visual field of semi-detached existence. There is something absurd in the idea of human personality, in all its nervous, psychological and chemical complexities, existing as a kind of temporary refuge for diseases whose metier is hide and seek.

Bacteriology lays claim to a considerable degree of infallibility in diagnosis. It deals with something tangible imprisoned in the limits of a lens. But these tangible entities are microscopically concrete. We are dealing with personalities at present unassessable in concrete terms. We must not forget the victim in awed contemplation of the virus.

Even the bacteriologist would only claim the existence of single, absolute causes in a limited number of specific infections, like diphtheria, scarlet fever and plague. We will consider another disease apparently of an infective nature. In rheumatic fever, chill, fatigue, heredity, acute infection, the lighting up of pre-existent and dormant agents of infection are aetiological factors. Those most familiar with the disease are unable to decide which is the factor of first importance. No sensible person expects or wishes them to achieve the feat. Rheumatic fever, like most afflictions, has a multiple and complex causation. This applies with added force in the chronic constitutional diseases where there is no direct evidence of infective processes.

It is not surprising that we scarcely ever find one indisput-

able cause of sickness. Even if we can be satisfied there is only one external factor, and of this we are rarely sure, we must consider the personality of the patient as something not only amending the effect of noxious agents, but probably determining the nature of the disease.

I could quote many cases in which change of occupation in middle life has produced disease. Alteration of vocation involves, of course, psychological conflict, increased strain and disturbed domestic economics. I am not merely arguing that the number of cases I could quote in which this factor has operated is impressive. I claim that in many men of middle life exhibiting these strain diseases, while other factors are present, change of occupation is the aetiological factor overwhelmingly most common to all.

Disease and the Creative Impulse

A further cause of disease in those employed in modern industry is the impersonal nature of the work. A man may spend years employed in the manufacture of a single component part of a piece of machinery or a species of manufactured goods. The psychiatrists have shown us that such a factor is very conducive to neurosis. Not only these latter, but other complaints at present called physical, can arise from such a cause. The impersonal can sometimes kill. From this aspect industry robs a man of reasonable initiative. He works, perhaps not innumerable hours, perhaps not stressfully. Sometimes his utilisation of skilled techniques becomes after years as much a matter of routine as pushing a plough. After years spent under such circumstances one cannot adduce as a noxious factor any added element of personal responsibility, at any rate so far as the actual rationale of his job is concerned. But the ploughman at least sees the field, the whole field, evenly patterned by his own efforts. He sows. More important, he reaps as he has sown. His brother in industry does not perish from excess of work. He falls because somewhere near the surface of consciousness he feels his whole life, or at any rate all his working hours, to be superfluous. His allotment, the

caged birds he breeds, are often not merely hobbies. They are touchstones imparting to life its only meaning.

I am not arguing that lack of outlet for the creative impulse and a conviction of the pointlessness of one's personal existence are sole causes of morbidity. (The latter is indeed often the salvation of many.) The potent pathological factor under such circumstances is that the individual is denied an immediate aim. (I am discussing this aspect of purpose in relation to disease in Chapter XI.) It must suffice here to say that the fulfilment of simple aims stills the turbulence of the personality in active expression. It acts as a sedative. Such goals as professional perfection, output so vast as to be legendary, the strife for a high reputation in one's calling, are unreal, exhausting and difficult to attain. They are artificial. They are intellectually conceived. They arise from abnormal emotion. They are too exhausting. The satisfaction of simple, reasonably attainable aims is conducive to health. The pursuit of the nebulous and remote is a cause of sickness. It is happier and healthier to aim at the cultivation of one's cabbage patch on the prescription of Voltaire, than to satisfy one's particular conception of the absolute.

I will try later to explain more fully how the social system into which we are born actually moulds our personalities in such a way that we are firstly slaves of ill-defined purpose and secondly prone to disease as a natural consequence. The disease induced is not only neurotic but physical. The personality of the individual relies on the nervous system not only to receive and suffer from what is imposed on him by his environment, but also to express his disease symptoms. We are developing more neuropathic personalities, but we must learn to use the word neuropathic in a wider sense. Formerly it implied a tendency to psycho-neurosis. In the future it will convey merely the tendency of vulnerable nervous systems to transmit external strains. Through the nervous system these stresses cause abreactions in different links of the endocrine-autonomic chain. Physical, mental and neurotic diseases are alternative expressions of the fundamental common denominator of strain.

Chapter Eleven

Sensuous Factors in Disease

We have dealt simply with some factors conducive to strain. We will now study more fundamental errors in civilisation. Morbidity is induced by erroneous mental attitudes. Many of the beliefs we accept as to our purpose in life or our destiny as men are noxious to health as well as happiness. We pay lip service to these beliefs. Unconsciously we revolt against them. We are thus the slaves of conflict. Many such beliefs determine the pattern of our lives. They encourage us in hectic attitudes we are unable to support.

What do we mean by strain? Like life, like consciousness, it is difficult to define in strict metaphysical terms. It is a compound of anxiety, a permeating factor in neurosis. Such lines of definition are unproductive. I am writing for practical doctors, not medical academicians. Strain is a universal deleterious factor. I will try to define it by finding some universally beneficial factor towards which it acts as an antagonist. Is there, for example, any one infallible factor applied to man in sickness? Does the same factor function equally well in preventing us from falling sick. There is one answer, and one only--rest.

The Therapy of Repose

By rest I do not mean solely physical rest like lying in bed or mental rest like abstaining from work. Nor should we use the terms physical and mental rest. If the psyche is body and mind acting in indivisible harmony, rest must imply the induction of respose in the same mechanism.

We are studying personality in relation to disease. Personality is not a static concept. We must conceive of it always as dynamic, as seeking a goal. Our personality needs various goals. These, for health, should always include a number of

immediate goals, not too difficult to attain. Aim, fulfilment and satisfaction should succeed each other evenly and with reasonable celerity.

Health is an attribute of the whole psyche. It is a sensuous subjective state. The goal of personality must therefore, for health, be largely in the sensuous sphere. It is my theme that relative neglect of this latter field of activity is a cause of morbidity. I argue, too, that we suffer from too many deferred aims. If religion, ambition and the lust to acquire beyond our reasonable needs is strong, fulfilment is infinitely deferred, satisfaction is always partial and sometimes negligible.

Repose, like health, is a harmonious complex of sensations. To some extent the two are synonymous. It is through the medium of sensuousness that our psyche is enabled to find periodic repose. The summation of these periods induces the chronic sensate state of health.

I will first deal with rest in its common meaning. Its necessity is so universally recognised that we doctors fail often to notice the fact. By an amazing combination of circumstances many of our patients are already in bed when we call to see them. We discharge our imposing battery of drugs. Often they serve their best purpose as a kind of ceremonial announcement that we consider the patient sick. They are a symbol of our approval of the relative's good sense in putting the patient to bed.

Our recognition of the importance of rest, in certain diseases, is one of our major therapeutic improvements in the last twenty years. In rheumatic fever our most significant advance in recent years has been the discovery that a longer period of recumbency is necessary. Formerly patients sat up too early. Children with growing pains, formerly disregarded, now go to bed for weeks. Not long ago patients with early rheumatoid arthritis, or fibrositis, were advised to work it off. In peptic ulceration every year we realise more and more that complete rest is the primary factor in treatment and that without it medicinal treatment is no better than the administration of blind placebos.

We are learning rapidly the benefits not only of general but of local rest. Modern surgery not only demands rest for diseased tissues, but insists, in many cases, that rest is the supreme and only therapeutic factor. This is exemplified by the new technique for treating extensive infected wounds. The limb is encased in plaster. This would have been considered fantastic even ten years ago. Scientific surgeons would have raved about sepsis and the danger of infection by anœrobes. Yet this new rest and don't interfere treatment is the method of choice of the most scientific surgeons. It is applied widely in other surgical conditions.

Some surgeons faithful to the school of stringent asepsis, men of incredible purity in all but speech and action, are revolted at the thought of pus collecting quietly beneath a wall of plaster. Nor is this surprising when one considers that the surgical technique *par excellence* of the last war was the drip method of Carrell and Dakin. The wound was left open, the bruised tissues were exposed to antiseptics in droplet form. The drops fell night and day. The wounded tissue was steadily bombarded. In addition sleep was disturbed. Surgeons were often enthusiastic about this treatment. Good nurses considered it lethal in diminishing the patients' vitality by disturbing rest.

This recognition of the importance of rest even in the high melodrama of surgery, the exponents of which have previously spent so large a proportion of their time in operation and manipulation, is truly striking.

I am not arguing that in many diseases rest is the only treatment of value. In acute rheumatism we have salicylates, in hyperthyroidism iodine, in peptic ulceration the different alkalies. These drugs are useless without rest. Rest, without drugs, is still beneficial.

Consider the more chronic conditions, like arterio-sclerosis and chronic duodenal states. No drug has any effect on the first. If the condition is accompanied by hyperpiesis, drugs for lowering the blood pressure are very fallible. In both cases the patient benefits from rest. Keep the duodenal patient on

a strict dietary and alkaline regime, work him hard, and he will break down.

In chronic conditions, chiefly rheumatic, we use physiotherapy. What are baths, relaxation and heat but techniques to induce rest through muscular relaxation?

We are deleting specific remedies from medicine and surgery. With the new surgical technique of rest we will use less of those cure-all antiseptics which pass from use after ephemeral vogues. In medicine we are questioning the very existence of specifics. If drugs require the concomitant of rest, are they specifics at all in terms of strict logic? We are learning the importance of natural hygiene in treatment. Rest is its corner-stone. We are at the end of an age which has produced a multitude of new chemical aids to therapy. We are approaching an era when the same lines of treatment will be used in different diseases. This is foreshadowed in our growing insistence on the primary importance of rest in the strain diseases. The ultra-scientific doctor will regard this as a pollution of medical finesse with crude and barbaric doctrines. The exponents of Greek medicine insisted on the importance of the same simple regime in diverse conditions. Rest, fresh air, relaxation, graduated exercise and rational diet were the main components of treatment. They made one supreme addition to the foregoing list of therapeutic agents. They insisted on understanding the morbid personality in relation to social, economic and spiritual factors. *In short, the study of the patient's personality was the only specific they relied on.*

We shirk the employment of what they used. We despise what we evade. Sometimes we hand the problem to the psychiatrist. He is often the last person to deal with it. He practices a new speciality. It is given preponderance in his therapy. He devotes himself to predominantly psychological signs. He studies, with endless patience, the non-existent. There are no purely psychological or physical signs. There are only psyches reacting totally through the body-mind complex. They cannot be treated by psychiatrists or so-called

medical specialists. We need the whole physician for the whole patient. Medicine must obliterate its physical and psychological subdivisions.

I mentioned single remedies for diverse ailments. Sulphanilamide is the most useful of our new chemical aids. We now find it has equal usefulness in different ailments. And it does something curious to the personality of the individual. This is a striking fact from the viewpoint of this book. It is not a product of my obsessions apropos personality. I heard it first commented on by the late F. G. Thomson, a skilled, unpretentious and I think unconscious exponent of the whole man doctrine. He said, "It seems to separate the patient from his symptoms." It often induces a curious psychological state shown, in extreme degrees, in disorientation and confusion.

We have mentioned diseases where rest is important in acute stages and chronic sequelae. It is often the first essential in prevention. We are evolving a conception of preventive medicine which will devote itself to the recognition of personalities prone to different diseases. In children's clinics we recognise pre-rheumatic types. Our diagnosis of hypertonicity separates our pre-duodenal subjects. The development of preventive medicine along these lines will insist more and more on the universal prescription of mental and physical rest. This will be applied above all in the chronic constitutional diseases. Rest is the one sound antagonist to strain. Its importance indeed foreshadows the origin of these conditions in strain and deficient rest.

We prescribe rest in the neuroses. We prescribe ordinary physical rest less than we did formerly. This is to be deplored. But psychiatrists argue rightly that so often our patients cannot rest. Here we have often to prescribe activity not as an alternative to, but as a kind of rest. We recommend often some simple social activity, where the patient can see an immediate result. Or we tell him to dig his garden. In both cases we are giving him a nearer goal. He suffers from deferred aims. He is too ambitious, or he suffers because he has no defined

purpose. We give him something he can fulfil. Why? Because satisfaction is the psyche's sleep.

What is the most fundamental aim of the life force, as distinct from its fragmentary existence in ourselves? Continuance. It is the most simple, undifferentiated aim in the universe. Our civilisation thwarts what is our greatest and most undeniable social purpose. The whole world is tainted with a death wish.

And when we repress the sex instinct what happens? Anxiety. This may be expressed in phobias, but its most fundamental sign is a feeling of indefinable dread for no concrete cause. Dread of what? Of nothing definable. It is, I think, a dread of nothingness. It is the cry in agony of a psyche without a goal. The psyche longs to express itself in a woman. What does this expression involve? Temporary extinction of self. Coitus involves, after all, the fusion of two psyches through the sphere of mutual sensation. The psyche desires to be divested of itself, in fact, to rest.

We have, too, assertive impulses. Repression of these leads, too, to anxiety. They, too, are repressed. Civilisation demands it. It is right to do so. We do not wish to be Nazis. But to a large extent man's assertive impulses are commonly expressed through sex.[1] Again he is denied immediate goals. Again he is anxious, and again his anxiety and emptiness manufacture for themselves artificial, distant and exhausting goals.

What are these goals? Cults of perfection, lust for attainment, the acquisition of possessions beyond worldly needs, and professional pre-eminence. These differ in mechanism and effect from our simpler aims. The latter traverse restricted circuits. Desire, its activation, fulfilment and satisfaction succeed each other quickly. In the deferred aims the circuit is wider and progress slow. Satisfaction, and therefore rest, is infinitely deferred. Practitioners of cults for perfection are never satisfied. One achievement whets the appetite for the next. Success involves exposure to increasing strain. If our

[1] This embodies an opinion not recognised in academic psychology. I cannot develop this theme here. I hope to elsewhere.

aims are ethical, in its present meaning, only but seldom is virtue its own reward.

We can sublimate our sexual and assertive instincts. This implies utilising their energy in other channels. The neurotic cannot sublimate. This is a distinguishing feature in neurosis. He goes on looking for his goal. He does this in his indefinable dread. He does it in his tremors and restlessness. His body is searching physically for a haven. But what we do not realise is that the sublimation achieved by the majority is a source of sickness. It switches us over from immediate to distant goals. And the sublimators often determine the pattern of society. We are wrecked on their surplus energy.

The pattern of society depends on what instincts we are asked to sublimate. We repress the sex and creative impulses. We encourage assertion and acquisition. This is our basic discord. Our repression of the creative impulse is singularly pitiful. We cannot all be Shelleys or Titians. We have all to work at something. We cannot enjoy the immediate aim of good craftsmanship in a modest sphere. Our industries are quite impersonal. The artisan makes a part of the whole. He helps to make quickly and in mass products inferior to what he might himself attain. He is serving the vague, to him incomprehensible aims of modern industry. The resurrection of small hand-weaving establishments and family factories is a half-conscious recognition of this error.

Sensuousness and Purpose

This section is necessary because sensuousness provides us with most of the immediate aims which provide most rest for the psyche. Most of us are happiest at play. If we are honest we distinguish between work and enjoying ourselves. I do not imply that work is a burden. Many of us like it. Our vocations satisfy us. But honest men, if reasonably balanced, will always admit that pleasures, more than their labours, afford them their deepest joy.

We feel intuitively that pleasure is good for us. Doctors recognise that good holidays are a better investment than life

insurance. Why are the sensuous outlets so beneficial? Because in them we delete, for the moment, the effects of purpose. We escape from the demand of our indeterminate and distant goals. The outlines of our striving, tendential personalities are blurred. And thus we rest.

We make our living with our minds. We may use mind itself mechanically, or as the directing force of matter. Yet life is most worth living when we surrender to our senses.

I often put the following question to patients and others. " If you had only six months to live, and by magic the fear and insecurity allied to impending death were banished from you, how would you spend these months ? " The great majority of answers include such occupations as foreign travel, reliving once more some bygone time with an old sweetheart, climbing the Alps, etc. A few people would carry on their jobs. They assert too vociferously how much they enjoy the treadmill of existence. " Methinks the lady doth protest too much." They are grim souls, with spotless ethics, naturally evasive, morally sound and mentally dishonest. My questionnaire convinces me to what extent we are deprived of what we desire.

Let us consider examples of pleasure obliterating purpose and our perception of our own personality. To the average man coitus is his greatest pleasure. Its completion affords him his greatest peace. It involves the striking symbolism of two persons fusing in body and mind. Even such is love. The greatest biological plea for love is that it makes most perfect the commonest human pleasure. It lifts it to the plane of joy. The subsequent repose is thus more deep. Desire expresses the personality in waking life. Coitus stills desire. So is an immediate aim achieved through the synchronised sensations of two persons.

In the contemplation of beauty, whether in nature or art, we ' lose ' ourselves. We have no purpose. The lines of our psyche are misty. We become an eye that sees or, if it be music, an ear that listens. We divest ourselves for the moment of our psyche. A little fantastic ? Rest, induced by music in beautiful surroundings, was a feature of Greek therapy.

Beauty in art and nature has this advantage over beauty in women. It is less complicated by desire. One day sex activity may be less necessary to us than it is now. We may be able to induce in ourselves deliberately states of repose which are at present most commonly produced by the relaxing mechanism of coitus.

The characteristic of most joy is its lack of tacit purpose. We enjoy our holidays and games for this very reason. We desire no more than what we have at the moment. Some swear they find joy in work. This is often an insecure contentment. They live hard to avoid the horrors of contemplation. Their work implies belief in erroneous concepts of purpose. They cannot stop. In retirement they find life a feat of endurance. They age ungracefully. Vociferous happiness in work is often a symptom of self-narcosis.

To be healthy it is necessary periodically to divest oneself of personality. We do this in coitus, the contemplation of beauty, and pleasure generally. We do this most obviously in sleep. The best sleepers among us need time to settle down. In this respect we compare unfavourably with animals. The dog, according to psychologists, has no personality. At any rate it is far less defined than our own. After a frenzy of activity a dog will literally drop off to sleep in a few moments. We are more conscious of our personality. We surrender it less easily. Unlike the dog we take time to settle down. Self-assertion expressed through purpose is the electromotive force urging our personality. It robs us of repose. Yet the process of falling asleep and slowly awaking is for those of us who are healthy among the most pleasant experiences we have. During these times we are partly divested of our sense of personality. We live chiefly in a world of pleasant physical sensations.

Many subjects of insomnia have abnormal self-assertive instincts and either strong conceptions of their purpose in life or a strong urge to find it. Unconsciously they resist the approaches of sleep. Sleep is the image of death. They cannot admit the thought of personal annihilation. Such people relax with difficulty. One cannot get them beyond

the superficial stage to the deep phase in which they feel disembodied.

You may argue, " We are individuals. Is it feasible that we should, even in the interests of health, divest ourselves of our perception of our own individuality ? " The answer is that firstly, from the examples given, our greatest happiness and health is found in circumstances where we have achieved this feat of spiritual disrobing. Secondly, we can actually induce pleasure by the conscious deletion of our acute sense of ourselves as individuals. We achieve this by altering our muscular sensations. Relaxation is an amendment of our general sensuousness. In the superficial stage we feel a pleasurable heaviness in our limbs. In the deep stage we achieve an intensely pleasurable lightness, accompanied by a feeling of being disembodied, of being outside oneself. It is a half-mystic prelude to communion with the infinite. Life seems more homogenous. It is a continuing and even stream. Our individualities no longer stand up like rocks in its tidal waters.

Deep relaxation is a consciously induced pleasure and at the same time a therapeutic agent. It diminishes the appreciation of noxious stimuli. I have, myself, consciously anaesthetised my left arm so that I could only faintly appreciate the most ferocious pinching. Next morning the arm was faintly marked but not bruised. Less forceful pinching on the right arm was excessively painful and gave rise to a deep bruising.

Another feature of deep relaxation is that it heightens the reality of pleasant imagery. Images are far less intense than sensations. This is a psychological axiom. Thinking of lilac is less satisfying than seeing and smelling it. In relaxation this bridge between image and sensation is much diminished. Thinking of flowers and similar pleasant objects summons up something more intense than imagery. In the light of pleasure as a therapeutic it is important to be able at will to evoke such experiences.

Conversely pleasurable sensations induce relaxation, though not to the dramatic depths we attain by conscious means. We

intuitively realise this when we put flowers in a sick-room. We consciously appreciate it when we " sit back and enjoy things." Our games have the same effect. Here it is more delayed. In admiring a view or a picture we can relax at once without any initial stage of activity. In games we first use our muscles actively. On ceasing exercise, we derive from them a feeling of pleasant lassitude. There are analogies here with the actual technique of relaxation. The beginner first stretches his limbs before relaxing them. The expert can relax at once.

I do not labour too much this question of relaxation. It is the basis of all repose. It functions in sleep. We do not relax when we have fallen asleep. We go to sleep because we are relaxed. Too often in sleep our relaxation is incomplete. We would not so often wake with backache if the muscles of our lumbar spine, the constant indicator of exhausted man, did not maintain in sleep their abnormal tension. Besides, a form of treatment where we can consciously induce repose is of inestimable value in a civilisation which has largely forgotten how to rest. In our strain diseases like arterio-sclerosis, duodenal ulcer and hyperthyroidism, the patient seems, to superficial observation, to have willed too much. These operations of will are often bogus and evasive. Too often they betoken excessive effort, excessive belief in purpose, to compensate for inward insecurity. Spurious operations of will help in the induction of disease symptoms. Nor can such symptoms be removed by conscious effort in our usual state of tonicity. We cannot remove by will the symptoms of physical disease. To some extent we can do this with symptoms present in neurotic conditions. Too often we achieve this at the cost of producing some physical disturbances.

We find increased tendencies to morbidity in cults and religions which minimise pleasure. There is a large incidence of sickness among sects like the Plymouth Brethren. This coterie in particular is an organised masochism. They enjoy little but suffering. They set their faces resolutely against cinemas, dancing and gay clothes. They are psychological

eunuchs. They differ from the odd slavonic sects which practice castration. The latter only harm themselves. The voluntary removal of their own genitalia saves the world any further pain. The Plymouth Brethren, to whom birth-control is anathema, inundate the world with neurotic offspring or children with strain diseases. The Plymouth brothers, old vintage, face life with cold certainty and enjoy the many effects of their own repressions. This enjoyment of their own frustration is quite obscene. Their offspring in revolt against parental repression increase the tally of neurotics.

Such hatred of pleasure often arises from a sense of guilt. The patient has found pleasure in infantile sexual experiences. He comes under the parental moral ban or, more likely, the whole restrictive moral atmosphere of his home leads him to regard pleasure in general as furtively sinful. As we have seen, this sense of guilt has pathological effects. I will quote, as an example, a particular kind of melancholia. As in any variety we find depression, ideas of unworthiness, a sense of sin and ideas of eternal damnation. We find, too, intense and uncontrollable agitation and insomnia. This variety, which I will call obsessive melancholia, has these characteristics excessively developed. The agitation is fulminating and continuous. The sleeplessness is literally uncontrollable. These patients are most of all in need of sedatives. They do not respond to them. Unlike melancholia in the manic-depressive psychosis there is no history of previous breakdown from psychosis. Most important of all there is always a previous history of profound obsessional neurosis. This extends from the teens onwards for three or four decades. The patient is unduly conscientious and over-scrupulous. He has received an unduly moral upbringing. It is rare to find that the parents were not active adherents of some religion. This is nearly always Low Church or Nonconformity. Such familial and environmental factors can be found in many cases of melancholia. The distinguishing factor here is the long prehistory of obsessional neurosis with an ineradicable sense of sin. The sins of sex, the pernicious effects of masturbation, played a

large part in the upbringing of these patients. The family history is usually good so far as psychosis is concerned.

These cases are about one hundred per cent. fatal. Death is from broncho-pneumonia or from some variety of cardio-vascular degeneration, or one of its complications. But these patients die of mortification of the flesh.

It is often argued that neuroses seldom pass into psychosis. Here we have a total disintegration of the psyche in both its mental and physical aspects due to a neurosis characterised by a sense of sin and antagonism to pleasure. This disease may be a relatively new mental reaction. Obsessional tendencies are present in melancholics and in their prehistory, but the constant presence of obsessional neurosis of this description is not encountered. We see elsewhere that the nature of psychotic symptoms is determined by the tendencies of the era. It seems possible that such factors may operate here. These patients, nurtured in a period of religious observance and established morality, have seen the decline of both. They have maintained their own religion of conscientiousness and scrupulousness in the face of society's growing addiction to pleasure. (I do not imply that we have learnt at all to use pleasures as a relaxation. The joys of the twenties were more like work.)

Apart from this variety there is a high incidence of melancholia among patients reared in the atmosphere of West of England nonconformity. Till I practised there I did not realise that people could die from that sense of guilt which inhibits the fulfilment of pleasure and destroys the psyche's rest.

There is a smaller incidence of neurosis among Roman Catholics. I will discuss this more fully later. There are, however, certain features of Romanism of interest here. The Roman Church does not interfere too much with the private lives of its members. Certainly it condemns sexual sins. Equally certainly it condones them. Sins are classified into mortal and venial. The former are heresies, grouped round the cardinal sin of thought. The latter include so-called sexual sins. Rome thus permits the necessary sensuous outlets to its

children. It is wiser than Nazism, which possesses its satellites too totally. Rome will last longer than Nazism.

Another factor preserves Romanism, and Anglo-Catholicism, from acquiring too much the taint of neurosis. Such religions provide an emotional outlet for the sensuousness of their supporters. The ritual is rich and colourful. It satisfies. Even nuns, shut off from mankind, are received into their vocation in the language of sex symbolism. They are the brides of Christ. Such religions have therapeutic advantages over the bleak, mournful celebrations of Protestantism.

Much ink is spilt differentiating between pleasure and joy. Are the delights of push-pin and poetry essentially the same? From the practical viewpoint pleasure is a degree of joy. Both are derived from sensation. The derivation of pleasure in sensation is obvious in, for example, the enjoyment of food and wine. Such derivations are less easily recognised in joy derived from beauty, yet this latter depends on sensations, of infinite complexity and variety, as when, admiring a flower, we appreciate its smell, colour, texture and attitude.

Perhaps the main distinction between joy and pleasure is that the latter is not preceded by desire, while pleasure is. Sex activity is a bridge between joy and pleasure. It is preceded by desire. This is partially dissipated in pleasurable activity preceding coitus. Pleasure passes into joy when desire expresses itself in a crescendo which is both the acme and the surrender of sensation. In these palpitating moments sensation is most acutely felt, yet it is not personal. We achieve our greatest joy in being lost. It would be difficult to discover a better example of joy involving the abnegation of personality. (Sex acts as a kind of bridge mechanism not only between joy and pleasure but, as seen elsewhere, between autonomic and central nervous activity. Such facts symbolise the unifying influence of sex on the whole psyche.)

We begin to realise some of the primordial errors in our civilisation. Desires leading to pleasure, and so to rest for our striving psyches, are too restricted. It can be argued that these are provided for. There is little evidence of them in the

education we receive in our formative years. Education stresses too little the pleasures of art and confines itself too much to intellectual appreciation of the artist's aims. It is an occupation for the specialist, a waste and a bore to the majority. Artistic education given to the young teaches that art affords the chance of a better life. So it does, but not in the sense the teachers seek so diligently to convey. The latter, drawing a veil of red flannelette over the artist's immoral life, endeavour to prove that his works are conducive to better living, within the meaning employed in the current social system. This is hypocrisy and nonsense. The ethics, as well as the main social and political observances of our civilisation, are rooted in assertion and acquisition, the battle-cries of our stressful personality. Art encourages the willing diffusion of our personality. Teachers of art don't.

Much so-called devotion to the arts arises from self-love and the impulse to self-display. Too many enrol as strenuous camp followers of art. Its contemplative enjoyment is usually a sedative occupation. Its stimulating properties are unstressful. The sneers of the art addict are a kind of cold excitation. More pleasure and therefore more benefit is derived from art by those who come to it in later life. They do so as a sensuous solace after heavy labours. They do not flaunt it feverishly as a social distinction.

In the social world art has less meaning than formerly, except as social raw material. We have among the higher strata ladies of high birth whose life aims have been further jeopardised by the menopause. They collect artists as a consolation for the infidelities of their Pekinese. Writers of cocktail fiction still appear in the *Tatler*, photographed with weary women, who taste them as a new experience. Once the aristocracy were patrons of art.

Art reflects the instincts of the age. I do not refer merely to the obvious, psycho-analytic associations of cults like Surrealism. In less obvious ways the virus of intellectualisation is boring malevolently into the superstructure of Art. Much modern music is attractive to those faculties we utilise in games

like chess. To those who listen to be soothed and entertained such music is rather an abortion.

We can claim that we have catered for pleasure in our sport addictions. In his impressionable years the average boy makes his first tentative approaches to sensuousness through his games. Too often the pleasure is deleted from them by the educational system. Games are too competitive. They are a masquerade of work. They are surrounded with an aura of spurious morality. The boy who plays games is for some occult reason regarded as morally superior to the boy who doesn't. This attitude is probably a derivative of the erroneous view that strenuous games are an antidote to the old Adam. Also we have too many team games, considering that in our working lives we are the slaves and victims of gregarious laws. It is hard that in our relaxations we restrict or accelerate our activities to meet the requirements of the herd. We cannot even rest in our games or we are not allowed to exploit their sensuousness to the full. If a boy asserts that his joy in batting for his side is to enjoy the sensation of one off-drive perfectly made he is well on the way to social ostracism. It is significant that nowadays most boys when they leave school cease to play cricket and football. They prefer squash and tennis, to a degree not explained by readier facilities. Many of the old school look on the difficulty experienced by clubs in raising a cricket team as evidence of moral decline.

A number of my melancholic patients have played games. It is doubtful if they enjoyed them. The majority played team games. There was a particular preference for cricket. I am sorry if this sounds fantastic. It is founded on observation. Cricket is depressingly associated with the moral order. ' It isn't cricket.' The elaborate and to a large extent pointless ritual of the game is a little obsessional. Laugh if you will at this indictment of the noble game. Men after all chose the pastimes for which their temperament fits them. And it was one equally skilled in psychiatry and cricket who first pointed out to me the connection between the two.

Sensuousness is part of the balanced life. Few wholly disregard it. It can be cut down in individual lives with no more dramatic effects than premature arterial decay. But the individual so ordering his life connives at racial suicide. He transmits an impoverished vitality. He carves the first steps in the long declines to neuropathy.

Anglo-Saxon and Germanic races show a relative disinclination for sensuousness. In them the power- is stronger than the pleasure-principle. This is seen at its height in Germans. Compared with other Europeans they set small value on the simple amenities of existence. Work, power and sadism are their substitutes. Until the plenty of France was exploited, Hitler's conquests increased in no wise the standards of living and pleasure of the average German. No other people endure such incredible sacrifices for so little joy.

There are people in the democracies with a sneaking regard for Germany's irrational doctrines. They argue that they pay. This applies only to Germany considered as a state. The individual gains little except the transitory satisfaction of feeling that he is a unit in the demonstration of power. But this reluctant admiration displayed by some to Germany is due mostly to the fact that we ourselves are tinged with adulation of power at the expense of sensuous outlets. We take our pleasures sadly. Once we were Merrie England, an inconsiderable island, rich in genius, with few possessions beyond our shores. Cromwell made our Empire at the same time as he made us Puritans. He gave us a sense of guilt and the tremendous drive which that engenders. In the next century after Cromwell we began to possess the world. We have paid for this in an impoverished stock, with a liberal morbidity from strain diseases, with a rising and ominous curve of psychological illness and exhibiting in our thinking the neurotic phenomena of complacency, procrastination and lack of realism.

I have offered a few medical reasons to support the prevailing intuition that we are sick because we have too little rest, pleasure and relaxation. This opposes the ethics of our social

system. It will be seen as a plea for lotus eating. It is no such thing. It is a resurrection of Greek principles. This people, who made a cult of leisure, were at least as efficient and certainly more productive than we are. Even consuming the lotus, if you can afford to do it, is more conducive to health than diseased ambition and the plague of power. We shall see later that rest and relaxation, scientifically induced, actually increase efficiency.

Some will argue that we are rotted with pleasure already, but pleasure-seekers today desire to run through the whole gamut of sensuous experience with too ubiquitous and hectic intentions. They pursue a quantitative ideal. It resembles that of the earnest human bees they so despise. This is the impregnation of sensuousness with acquisition and assertion. Hectic pleasures are, in logic and actuality, no pleasures. Equally with ambition they represent men's frenzied attempts to hide from their insecurity.

In this brief study of the sensuous principle we see the beginnings of new aesthetic and social values. The meaning and nature of beauty have baffled the philosophers for centuries. We can regard beauty as mainly useful in inducing repose. This estimates its value in terms of practical biology. It is none the worse for that. We must think biologically in order to make ethical and social values practicable.

In relaxation the higher centres of the central nervous system control, through the operation of will, the autonomic nervous system. People with stable autonomic systems relax particularly well. It is less a question of conscious control of the central system than of a naturally harmonious interaction between central and autonomic function. Many examples of supreme will-power are erroneous. People who habitually sleep only four hours a night, who compress tremendous achievements into a single lifetime, do so because they work in a relaxed state. Their autonomic systems are stable. They are inwardly and outwardly calm. Their autonomic and central systems are beautifully synchronised. They are not examples of will but lessons in harmony.

One day we shall cease to divide human activities into medical, moral, ethical and psychological spheres. We shall speak not of sickness and sin and misery, nor of health and goodness and joy. We shall talk of harmony and disharmony. We shall aim at the even functioning of body and mind within the individual, and at the harmonising of the total psyche to the world without, to life itself. The former does not beget the latter. It is largely dependent on it. For this reason we must amend life itself and bend it to our purpose. We must provide such a social system as encourages these two indivisible conditions of harmony. We are all vulnerable and frail. We only live well when allowed to.

One day we will regard the vague condition of goodness in a different light. Few are wholly black or white. Most are grey. But sometimes one meets those in whom goodness is a kind of uniform emanation. It is a total reaction of the psyche of those who possess it. It is undictated by fear. It is not evoked at the instigation of self-assertion. It does not compensate for a sense of sin. Its origins are not in masturbation. Spurious virtue is woven from these same frustations. The compulsively good are easily recognised. Their sensuous channels are barred with the debris of moral systems. Their reactions are those of men in chains. They beat against the bars. Goodness is always calm.

False goodness arises from neurosis. Is not neurosis itself something of a sin ? The individual is self-enfolded. He cannot be lost in a proper aim. He is self-dominated and self-tortured. But what channels do we offer to help him dissipate his sense of self ? Ambition, love of power, acquisition of wealth beyond our needs, professional eminence, or, if we think socially, public duties in maintaining the structure of a crumbling epoch. We attempt to cure him with poison. We treat self with the expressions of self. We should preach rather the doctrine of little aims. Ambition is a sin. The heaven of the religious is a last testimony to man's greed and self-assertion. Our concepts of purpose are the ugly cries of deformed sensuality. We may one day achieve a harmonious emanation of goodness

by deleting neurosis from our psyches. (The conscientiousness of the neurotic is induced by fear. The goodness it evokes is always harassed.) The mark of the virtuous man is freedom from sadism, aggression and acquisition and these sins originate in maimed sensuousness. We may find later that the calm of goodness is attainable by the greater fulfilment of simple and harmless appetites. We may thus achieve virtue by biological planning.

Goodness is none the less good if it arises in us. It is essentially more holy than if it be imposed from without. A living Godhead within us is better than a presiding, judicial and meaningless god. If goodness implies for us a balanced nervous system, a harmony of body and mind and universe rather than a list of trumpeted maxims do we lose thereby? All things on earth require a mechanism to live. We can at least devise something to enable us to live well.

Chapter Twelve

Spiritual Factors in Disease

DISEASES alter their signs and symptoms down the years. This happens with the psycho-neuroses. Centuries ago we saw more hysteria. Now obsessional states are commoner. We find more symptoms of obsessional doubt. This embodies an abnormal incapacity to make decisions. It paralyses the operations of will. One course of action suggests its opposite. The patient is completely incapable of action in either direction. Other obsessional symptoms involve the postponement of decisions. The patient must, before action, obtain mythical and superstitious sanctions. Not performing actions till we have counted up to a certain number is a symptom of this nature.

The psycho-analytic explanation of these obsessional states is very tenable and largely true. These symptoms are similar to the tendency in savages, terrified by unexplained sights and sounds in the dark forest, to placate the evil eye with primitive rituals. But why do present-day obsessional tendencies so often take the form of obsessional doubts and paralyses of action? Other channels of expression, compulsive acts, tics, etc., are, after all, available.

Human aims and purposes are riddled with doubt and scepticism. Is it possible that the beliefs of society influence the nature of the neurotic symptoms we display?

Take another example. There is a kind of psychotic reaction becoming increasingly frequent this last decade. Schizophrenia implies a chronic illness, which progresses evenly towards dementia or runs a course broken by remissions. Nowadays we see a great increase in schizoid reactions, *i.e.* where the symptoms are schizophrenic, but which run a short course and are not complicated by recurrence. The raised incidence of these cases can perhaps be explained away by the

shop-soiled argument proffered by this era of indifferent clinicians that they occurred formerly but were never diagnosed. Even if we accept this there is a particular sub-variety of schizoid case, characterised by the specific content of the patient's thoughts, which is steadily increasing. It occurs in persons of both sexes from the age of seventeen to the middle twenties. The schizoid tendencies to dissociated thinking are expressed in what can best be described as a kind of addled metaphysics. They do not express merely the diffusion of aim occurring in schizophrenics. They grope in the meshes of psychology, mathematics, philosophy. They need careful handling. Their statements have always a substratum of validity. They are people of good education. They are often at the university stage. There is seldom evidence of any gross inheritance of mental traits. Their parents are usually at a loss to account for the occurrence of the disease.

In these cases the patient's metaphysical preoccupations help to determine at least his symptoms. I believe that the current uneasiness and scepticism as to the destiny and purpose of individual man and mankind as a whole, are of themselves factors initiating illness or determining its nature. It is a fact of the greatest significance that this particular type of case which I have described is increasing during the last two decades of doubt and hazard.

Doubt and Disease

Philosophic and religious doubting are potent factors in causing sickness. There is far less neurosis in people with a firm dogmatic religion, like Roman Catholicism, than in vague creeds like Anglicanism. The Roman faith is quietly invulnerable. Its most fanatical exponents are its proselytes. Fanatics are usually tinted with neurosis. Many of these converts go over to Rome after neuroses expressed largely in obsessional doubts. They carry with them the insignia of neurosis. Their fanaticism is not difficult to understand. Addicts fight hard to keep a drug which promises to keep on working. They have often tried others before. There is an

air of finality about Romanism. If that fails, there is nothing. The proselyte's self-persuasion must therefore be intense.

I always study with particular care the religious and philosophic background of psychological patients. In melancholia, most dreadful of all diseases, the preponderance of cases coming from Nonconformist or Low Church homes is staggering. I have dealt briefly with these phenomena in relation to sensuousness and pleasure. There are further facts of interest. Nonconformity and Low Churchmanship represent an infiltration of religion with rational thought. They are half-way between faith and scepticism. The Paptist accepts. So does the complete sceptic. Fatalism is no mean prescription for anxiety. In their working life these melancholics for years generate an artificial fervour for a religion which does not help them. It is of itself too impregnated with rationalisation to quieten their doubts. They are hyperconscientious types. They use their work as a narcotic. They rub along somehow. Their drive declines at the climacteric. Work is less useful as a drug. It cannot quieten the rebellious mind. These patients develop ideas of their own vileness, of being perpetually damned. They have committed the sin against the Holy Ghost. Characteristically they cannot define it. Behind all these delusions there is fear, too awful to be expressed. They doubt. They doubt the usefulness of life, their destiny, their hope of immortality. They blame themselves for doubting. Their death, from exhaustion, is the last agony of unadmitted scepticism.

The gradual decline in the power of religion, accelerated since the middle of the last century, resulted in man abandoning his old ideas of life's purpose. These simple ideas were not beliefs in the strictest sense of the word. They were a crude verbal shibboleth compressed under the heading of faith. They left man free to pursue and satisfy himself with the simple aims of eating and drinking, coitus and reproduction, and sowing and reaping. People made the few effortless obeisances required by faith and carried on with immediate aims, capable of easy satisfaction and therefore reposeful. This

applied to the peasantry. The 'higher' strata of society had few occupants. They were relatively untinged with scepticism. They had more creative outlets.

The cancer of neuropathy developed potence in the age of rationalisation, which began in France at the end of the eighteenth century. It did not appear in this country till the nineteenth century was well established, an example of the tedious Channel crossing experienced by many ideas *en route* to Britain. Scepticism and agnosticism are not diseases. They are milestones in progress. But half-way houses between belief and scepticism are potentially morbid, whether in individuals or nations. They imply conflict. They frustrate clear definitions of purpose. The last century has been such a half-way house. The last two decades have been in particular a period of transition.

The beliefs of past ages were emotionally derived, or accepted from convenience. At best they were intuitions. (Intuitions are notoriously fallible. Theoretically to be found mostly in the intelligent, they are nevertheless most vociferously claimed by the very stupid.) The age of rationalism had three main effects. It sapped the authoritarianism of religion and made men agnostic. Religion itself was infiltrated with rationalism. There was a swing to the left. Religion became more liberal. Protestantism increased. Thirdly, mankind embarked on a more intellectual definition of truth.

The Tyranny of Truth

The search for truth is the subtlest of all slaveries. Of its very definition it is something universally acceptable and irrefutable. In searching for it we employ our intellect. This is the mere motivator of our matter. Truth is merely our individual angle.

The elucidation of truth grows each year more fallible. Its rationale is increasingly permeated with the technique of natural science. The latter is becoming increasingly wedded to the higher austerity of mathematics. This in its turn depends on the greatest of all feats of abstract theory, that two and two

are four. And we learn each day that the mechanistic explanation of natural science is inadequate to account for natural phenomenon.

Secondly, the operations of intellect are inseparable from those of emotion. Personalities embody an indivisible complex of thought and emotion. What the personality seeks will be truth accommodated to its own particular nature. Hence there is not one truth but myriads. Pathetic reference to ultimate truths implies only truths that are infinitely deferred.

The fallible nature of truth applies in religion as in other fields. Present-day rationalism demands that faith be justified by intellectually demonstrable truths. The temporal organisation of religion is essentially a rationalist pursuit. It depends on articles of belief acceptable to the intellect. Even the Church of Rome sometimes undertakes to 'explain' things. Its explanations are incredibly naive. They will be better later. Unlike the Anglicans they have not been long enough in the field of compromise.

Man has learnt to rely less and less on religious faith. He replaced this by philosophic conjecture and the scientific pursuit of truth. This, too, has failed to satisfy. The philosophers cannot produce the comfortable dogmas of religion. They are evasive. They are very slow.

Religion and philosophy deal with the destiny of man as a whole. When the authority of both were sapped man was most concerned with the problems of his own individual destiny. And because he lost the foundations of religion in the course of one feverish century it was essential that his pursuit of a purpose was rather feverish. The Bastille fell in 1793. With its fall secular authority was sapped to a large degree. Fifty short years after the Revolution the industrial revolution was under way. With its inception morbidity increased.

Now it is sheer narrowness of view to assert that this increase in morbidity was due solely to the unhygienic and general adverse conditions industrialisation brought into the lives of many. The issue is deeper than that. We said

previously that man lost his faith in the dogmas of religion. As a whole he did this reluctantly. Most men are haunted by insecurity. They do not readily part with comfort. Only a few were adamantly opposed to religion. The vast majority expressed their growing belief by the mechanism of compromise. They adopted those faiths which still offered the comfort of immortality and a belief that life was divinely and morally ordered, and which proffered, too, the added comfort of resistance to the savage impositions of the older faiths. There was a drift to Protestantism. There is great medical significance in the description of this brand of religion. It implies a state of conflict.

But only a few were professedly agnostic. (Even today the number of people openly admitting to agnosticism is very few. How many agnostic journals do we possess to offset the horde of church periodicals?) The unadmitting agnostics treated their increased fear and insecurity by seeking ferociously for an individual purpose. For many such types the industrial revolution was well timed. It was well timed because they made it.

Because ideas as to the destiny of man have become increasingly vague people have tended more and more to manufacture for themselves a multiplicity of aims and purposes. Purpose is the end result of expressed personality. It is a kind of total sublimation of a psyche sensuously frustrated. Very commonly men hide from their own insecurity by self-aggrandisement beyond reasonable needs. After all, quantitative rather than qualitative living is the popular preference. Output and gains are infinitely more rapid under industrial conditions. A sense of power, common treatment for the pains of insecurity, can also be gratified. The captains of industry have great drive and demand of themselves an incredible standard of efficiency. They are a master class who are yet slaves to their lust of power and perfection. This is bad for themselves. Some are neurotics, with obsessional traits. Their methods of work express these tendencies. They acquire peptic ulcers and blood pressure. The employer class are busy

killing themselves for gain, for the feeling of power, or for the nebulous satisfactions of those who worship efficiency. The tempo of their lives produces in three generations an impoverished product which wilts rapidly after a period of hectic futility at Oxford. These marry the children of worn-out aristocrats to satisfy their parents' sense of power. This adds to our overdraft of neuropathy.

But the tragedy of the situation is that the rank and file are strung up to live excessively in the interests of increased output, and to establish further the employer's reputation for tremendous efficiency. The morbidity rate is increased among employees because they have not the same personal incentive as that which activates their employers. This is a tremendous factor in illness. A man may literally lose himself in the intense preoccupation with a job of which he is inordinately fond. He becomes a mere instrument of his own interest. It is not a case of mind over matter. He acts in unison. No part of his psyche rebels. The worker cannot thus lose himself. He is in revolt. He cannot protest. As we have seen, the sickness rate in workers is of a different composition to that in employers. Their ailments are more 'physical.' Employers are notoriously intolerant of 'nerves.' We resent the reflection of our faults in others. The employer's reaction to his sick workman is the intolerance of the ferociously productive obsessional neurotic for the capitulating neurasthenic serf. If the positions were reversed master and man would exchange neuroses. Each displays that which serves his interests best.

Life takes its tempo and technique from industry and commerce. The lawyer uses a stenographer instead of his stately quill, etc. How many doctors even twenty years ago had secretaries to deal with their calls and correspondence? The quickening of tempo is not the worst abnormality. Increased output, increased acquisition, make life more competitive. And blindly competitive. We no longer triumph by more energy in acquisition, or by our mind becoming more expert in the actual technique of our trade. Life is too congested for that. We are reduced to the practice of costly tricks

and mental subterfuges. We have to advertise. Clear profit only begins when we sell in excess of our rivals. It is the same in the professions. Doctors buy pretentious cars beyond their means. The struggling lawyer sends his son to a public school, not as an education, but as an investment and an advertisement. I am repeatedly appalled at the number of professional men who live on overdrafts not attributable to expenditure on pleasure. It is part and parcel of the acquisitive and assertive racket. Our chances of acquisition grow less. The world is overpopulated by people enamoured of the assertive mode. We are thus reduced to a life of masquerade. We keep the appearance of success by adopting its trimmings. Our insecurity demands it. Our road to success must first be paved with the semblance of fortune.

Lower down in society people still strive painfully at great sacrifice, to present the appearance of greater prosperity and success. Great numbers of humble people are denied their pleasures by saddling themselves with pretentious houses bought on the instalment plan.

Herein is one of the worst features of the altered pattern of life in the last century. In all epochs men pushed ahead of their fellows to gratify their assertive impulses. Now we have *whole classes* engaged in this process of self-mortification. This tendency has imparted to us a new, fallacious and dangerous standard of values. Our great men are captains of business, newspaper barons and politicians. Politicians have always attracted attention. It is well to observe those presumed to defend one's interests. I can understand the performances of Mr. Chamberlain being observed more closely than those of Dr. Banting. Dangerous activities are always more arresting than productive endeavours. But it is inexplicable to the rationalist that the obituaries of this remarkable town councillor should be more voluminous and laudatory than those of insulin's discoverer.

The politicians merit attention. It has been said that it is not doctors, but politicians, who cure diseases. This implies that the correction of adverse social factors is, more than

anything, responsible for reducing disease. So far, so good. But what diseases are the politicians mainly trying to eradicate? The so-called industrial diseases, silicosis, anthracosis, miners' nystagmus, etc. Their continuance is an inconvenience to employers and to guardians of the social conscience in an enquiring age. What else are the politicians interested in? A general improvement in working conditions. Illness interferes with output. The ideal is a state of affairs where maximum output will coincide with minimal illness. It all looks well on the surface. The minimum of sickness reads better than the maximum output. But such aims still keep the mass of mankind harnessed to an abnormal acquisitive system, abnormal not from the standpoint of ethics or the socialist conscience, but because it nourishes the roots of disease.

The politicians, in the throes of their enforced altruism, may banish from us the occupational diseases and those maladies like peptic ulceration which each day we attribute more and more to stress and working to a ruthless schedule. It is doubtful if the general health of the community will benefit appreciably. The strain of an abnormal social system will find its channels of expression. Disease will become more and more neurotic and functional. It will not be seemly for the worker to contract silicosis in our hygienic mines of the future. In the factories planned periods of relaxation may banish duodenal ulcer. I think, as well as neuroses, we will get more schizophrenic reactions, with abnormal emotional apathy and adynamic tendencies. This would be a logical protest to the pulsating dynamism of a system in which man is a hygienic slave. It is easy to deride such theories. It is wiser to wait and see.

Our politicians are children of the present industrial system. To a large extent they are supporters of it. Many enter Parliament to further the extension of their business interests. On the other hand, the earnest socialists have studied the flaws in our industrial system. It is they who will press most earnestly for reforms, for better hygiene, for better medical services for the workers, etc. The tragedy is that the

scientific ' socialist ' politicians in all parties are equally misled. They will try to heal the worst flaws in the industrial system, not realising that in itself it is a morbid offshoot of a cancer in the social order, a cancer attributable to wrongful standards of value.

There are so few foci of resistance to the current abnormality. For reasons we have considered previously agricultural labour is conducive to health. Yet there has been an exodus from the land to such a degree that those who stay on, employed in ill-paid agricultural labour, show an ominously high percentage of mental defectives. The economics of agriculture have been in a parlous state. An occupation which embodies a rational mode of life has reached such a level of decay that government subsidies were needed. The practice of sanity is not encouraged.

We might have expected more leadership and a few more warnings from the seats of learning. Oxford provided the movement of John Keble. This was inevitable. It coincided with the development of industrialisation. It is natural that the Church should attempt to regain its prestige. In the last century there has been no coherent call to saner living. Sometimes dons have deplored our tempo of living. Often this is because they cannot themselves support it. They have preferred academic security to the unnatural excesses of professional and business life. Their protests are stimulated by self-defence. This does not make for reason. Clerics, too, have inveighed against the bustle and materialism of modern life. They cannot themselves support it. Its speed exceeds their following capacity. Its materialism saps the foundation of the faith their uncertainty demands. From the repose of their country rectories they condemn rightly the bogus progressiveness of the age we live in. They invite us back to a reactionary concept of religion which we have outgrown. It is a sad reflection on our times that the most vocal protests against its abnormal tendencies come from people unable to maintain the pace or to face the conclusions of a neurotic age. The blind cannot lead the blind.

I must emphasise that I am not arguing a return to simpler modes of living because I am obsessed with the merits of simplicity *per se*. I do not desire the peasant pattern of existence which is the obsession of Petain's dotage. One should be careful of people who wish to return to simplicity. They may aim in the right direction from the wrong motives. Leader classes, recruited from insecure unhappy abnormals like Hitler, are always preoccupied with simplicity. They argue its virtues because it is better for them. We must seek, or rediscover, a further simplicity which benefits us all.

Transition. The Therapy of Nazism

We have seen that socially and medically we exist in a period of transition. Rationalism has grown and faith wilted. It is not surprising that our age has seen feverish attempts to remedy our lack of purpose. Because it is an age of transition we have seen the rise and fall of movements still utilising faith and religion but demanding immediate benefits. We have witnessed the initiation of many cults, some half-religious, some pseudo-philosophical, some semi-occult. They are all half measures. Their exponents keep their feet in this world and their heads in the next or in the clouds engendered by their smoky thoughts. These half measures are fiercely varied. When we are not quite certain we become more vocal. We have had theosophy, Christian Science, and the wild piety of Miss Aimée Macpherson. We have had the Oxford Group and Yogi. We have seen also innumerable itinerant vendors of new cults and creeds proffered on the patent medicine system. Swallow it and you'll feel nothing afterwards. They speak in the Spa towns and where the retired, and the socially pretentious, elect to live. They are found wherever the old, credulous and timorous drag out their days on private means and private panic.

A significant feature of these creeds has been their medical preoccupations. Christian Science is the clearest example. The practitioners of Yogi claim to improve physical dis-

abilities by the induction of certain spiritual and mental states. (I don't see why they should not.) The confessionals of Buchmanism are analogous to the wholesale purges of psychoanalysis. The practitioners of the newer cults differ from the supporters of the established religions in that they more desire their money's worth. Like our Lady of Lourdes these cults attract the sick. According to a celebrated psychologist Christian Science meetings are a mass spectacle of chronic constipation. At least Christian scientists have arrived at the truth that spiritual factors will cure pain. But the exponents of these cults commit the old cardinal error of religion. They are back again at the old game of seeking ultimate, universal truths. They disregard the fact that man, as an individual, has individual problems. The Oxford Group is recruited largely from better-class flotsam and jetsam, too listless, too distraught to direct their own lives. They therefore rely on constant direction from God, who invariably grants what they most desire. It would be difficult to imagine a more neurotic reaction. God is the sublimation of our fears. We can only be healthy by being self-sufficient.

Some of us dance on the corpse of reason in our pursuit of purpose. Others make a god of work. Others deny that there is any purpose in life. This is a reasonable conclusion. Unfortunately, so many are unable to support the pain of their own conclusions. They have not achieved a healthy self-sufficiency. The erosion of the temples of belief and purpose leads to such phenomena as the cult of strenuous pleasure existing here in the twenties and presided over by the irritable, depressed and over-tense features of Mr. Coward. Grave moralists found delight in counting the number of young people drenched in neurosis by the life they led. The twenties were not a cause but a symptom of neurosis.

Man has crucified himself in an attempt to fashion each for himself a concept of purpose. He has hurt himself badly in getting away from the infallible group dogmas of dormant ecclesiasticism. Yet humanity demands that he should. We have a tendency to evolve, and towards better things. We

must find some method of evolution less damaging than the brand of individualism we have practised hitherto.

Nazism and Fascism are reactionary attempts to solve the morbidity in Western civilisation. They attempt to find a substitute for the life of individual man by asking his surrender to the state. Their ideal is the man with the first-class body and a mind with a few ideas. This in itself imparts a tremendous and temporary mass force to peoples adopting such themes. But this technique is, too, essentially morbid. It is morbid because, though the Hun revels in his return to what he considers a healthy barbarism, he, too, breaks natural laws as much as we do. He, too, is manufacturing an artificial concept of personality which attempts the impossible in dividing body from mind. To some extent he is even encompassing the extinction of mind. Mind, fashioned solely as an additional weapon of offence, ceases to be mind. For the moment he wins tremendous successes. He may produce a race classifiable as A1 according to the artificial standards we use for physical fitness. But he is making himself more vulnerable psychologically. In the occupied countries there is a growing incidence of psychological casualties among the German garrisons. Their trained thugs are able to cope efficiently and bloodily with definite revolts instigated by these subject peoples. They cannot endure the resentment and the quiet hostility of the mass of ordinary people beneath their heel. It is not difficult to see why. The limited set of ideas with which they are infiltrated by their Fuehrer offers them no mechanism to cope with disdain. But more than this, in having deleted the rudiments of self-sufficiency from their minds, they are unable to adjust to an environment in which they are isolated and abhorred.

If the Germans won this war, if they stuck to Nazism or some similar totalitarian creed, they would still decay as a race and decline from a position of domination, and with great rapidity. They could not consolidate an Empire which would last half a century. Mechanical men are a useful proposition in the kind of warfare of mass the German favours. They are

of little value in the shifting world circumstances which would succeed a war of this nature. It would be necessary for them to produce, in less than a decade, millions of men capable of adjusting themselves to the psychology of the diverse peoples of Europe and elsewhere. It could not be done in a decade. They have failed to do it in two thousand years. The habits of reaction in the German nervous system are limited. Their pathways of discharge are restricted to a few channels for offence and technical activity. They have failed to become civilised. They are maladjusted to civilisation. As with us, it begets neuropathy in them. Their neuropathy takes a savage form.

Health and Religion

An alternative possibility is that organised religion will once again claim allegiance over the masses. We see signs of this already. Eminent clerics ascribe, with purblind logic, our present impasse to the decline of religious observances. They claim that the war will be worth fighting because out of its sorrow will come the desire for a wholesale return to religion. In short, the church will cash in on the crisis. Certain raw material is available to them already. Organised religion builds its surest foundation-stones on the fears of the credulous. Its ritual is allied to superstition. The wearing in war-time of both amulets and crucifixes has the same psychological explanation. The other day I saw a show in which ten chorus-girls did the best they could to entertain with the peculiar half-religiose, half-voluptuous genuflections of their half-naked bodies. Six of the ten wore crucifixes. It is pleasant to think that the six concerned were fervent Anglo-Catholics and Romans finding in God solace from that most arduous of all labours, the desire to entertain. I fear it is unlikely. Crucifixes are being worn widely as charms against bombing. So far no coupons are needed for their purchase.

A mass return to the principles of organised religion would have the most obviously deleterious effect on the community's health. When people are encouraged to contemplate the

hypothetical benefits of the world to come at the expense of those obtainable here they are prepared to endure a lower standard of living and working conditions. To discover the truth of this assertion any unbiased observer has only to compare the health services, the general standard of health, and the incidence of disease in priest-ridden countries like Spain with the standards maintained in rationalist communities like Scandinavia. In these Church-controlled communities physical disease from malnutrition and from infection is very rife. Psychological diseases in general exist in these communities as they do elsewhere, but their incidence is confined mostly to the gross biological disaster of the mental diseases. Neurosis does not occur so much for this reason. The Church teaches that every individual, no matter what his temperament or standard of intelligence, is a suitable candidate for salvation. Ideas of this nature grafted on a community are incompatible with the teaching of medicine and rational psychology which indicates that even a man's ethics may be dependent on temperament, heredity or environment. Nor do ecclesiastical systems admit, or even permit, doubt as to the destiny of man. They therefore do not offer stimuli encouraging the production of obsessional and other neurotic tendencies. Again it is a question of man acquiring those diseases from which he is permitted to suffer.

If we return to the authoritarianism of the Church we will reap a larger crop of physical diseases. If we decline towards, or submit to, the authoritarianism of Nazism or Fascism we will, after a brief period of respite, add further to the incidence of neuroses and psychoses. There would probably be such a period of respite because for a time over-intellectualised man finds peace and pleasure in the lack of responsibility encouraged by a system which asks implicit obedience to a few simple ideas. After this period of remission the mind's inelasticity in relation to varying circumstances would predispose to breakdown. Other factors, such as the damning up of creative outlets, would operate too.

The group systems have failed to keep man happy. Each

has its accompanying diseases. In the last century man has struck out on his own, but without guidance, and still obsessed by fears. The civilisation of the future will have to overcome these fears and encourage man to live his own life. It must, too, afford him guidance in studying his talents and flaws and acting accordingly. So far as his destiny is concerned he will have largely to abandon the purposeless speculations of metaphysics as at present conceived and the threadbare but threatening dogmas of religion. The civilisation of the future will fulfil the slavey's doctrine, " Life is what you make it." It seems we have travelled far and arduously to achieve so simple a conclusion. But the best maxims are always simple, though none the less hard to attain. The fears of men enfold them in complexity. Common sense is hard to acquire. It requires courage as well as wisdom.

The truth embodied in the slavey's adage is that we should regard living as an art. The mechanisms we must adopt to inculcate this attitude include the teaching of different social values. Before we discuss this we must investigate a little further these abnormal reactions in mankind which have induced such pathological results in modern man.

God claimed us in the age of faith. In studying pleasure and sensuousness we have seen that to live well it is necessary to lose sometimes our sense of self. Many were never healthily lost in religion. It is difficult to be lost in a creed which insists on endless personal immortality. I am sure we would grow very self-conscious if we lived for ever. The belief in immortality is an unjustifiable surmise. Our personality must endure because our abnormal self-assertiveness refuses to contemplate any alternative.

Belief in immortality proceeds usually hand in hand with self-denial and the relative deletion of pleasure on earth. It results in self-torture from frustration. Communities with simple animist faiths and no positive belief in immortality are less liable to neurosis. We see this in the simple religions of certain African tribes and, on a higher plane, in the civilisation of classical Greece. Except for the simpler hysterical reactions

it received little notice in the medical literature of the period. Why? We too often proffer the trite answer that it was not recognised. It is a ridiculous assumption that, if it existed in mass, it could have escaped the notice of the acute clinicians of Greek medicine. It is inconceivable that in their masterly descriptions of disease they could have omitted a disease category of any considerable incidence, especially considering their belief in personality and the importance of psychological factors.

Where, too, the religious feeling of man is utilised unfanatically and rationally neurosis and psychosis are far less common than with us. In England those of us who believe at all are Roman Catholics, Anglicans or Dissenters. We may respect the sincerity of exponents of creeds other than our own. We may accept certain of their tenets. But essentially we remain practitioners of that creed we have adopted or into which we were born. The cultured Chinaman, on the other hand, regards his country as having produced two great leaders, Confucius and Lao-tse. He accepts, too, that the teachings of Buddha have great influence in China. He therefore studies, appreciates and accepts to some degree the teachings of all three. Such an attitude is unthinkable in Western civilisation. Neurosis and psychosis in China are of much smaller incidence than here. It is not merely that the Eastern religions and philosophies are more fatalistic than ours. Certainly they are and in being so they are more accommodated to the needs of men. But the most important factor is a habit of mind sufficiently unfanatical and agnostic to sift out the merits of three different religions and concoct a compound of one's own.

An interesting feature of certain Eastern religions is the doctrine of transmigration of souls. The unity of consciousness we possess goes, after death, to infuse with life some entity which may be human, animal or vegetable. These religions express the continuity of life. So does Christianity. But Buddhism is concerned with life in general, with the transmission of the life force. Christianity deals with the unending

continuance of our individual units of life. Buddhism is therefore rooted in fact. After all, life does go on. The faith of Buddha is a poetical annunciation of this fact. Christianity is a poetical hope built on conjecture and the mistranslation of Christ's teaching.

Christianity, the product of the Prince of Peace, is a tower of Babel, where the exponents of each sub-sect bombard each other with theological cliches. It has its firmest hold in a continent perpetually scarred by wars. It is an accompaniment of a social system with a prodigal and growing incidence of neurosis. The Buddhist calm is proverbial. The Buddhist attitude is a model of relaxation. And, most important difference of all, Christianity stresses the importance of human individuality. Buddhism preaches the diffusion of personality after death and stresses that in life we are part of the personality of others, human and animal, who have gone before.

These fatalistic philosophies, accompanied by calm, relatively unaccompanied by neurosis, have the same tendency to the diffusion of personality we have witnessed in sensuous activity.

Health and Philosophy

Philosophy is of more importance than religion in investigating universal problems. It has less influence on the psyche of common man, who is, as a rule, only affected by philosophy in so far as the latter is incorporated in a religious system. Rational, unfanatical philosophy leaves man largely in the air. If he is so constituted as to endure this state of suspense all is well. Psycho-pathological reactions depend on revolt for their evocation. If philosophy can transmit to a large mass of men that it is vain to seek permanence in what is essentially a transient state, then it achieves a valuable object. But men as a whole are incapable of facing the conception of a naked future. Such philosophies are usually only acceptable to the naturally philosophic and such natures are comparatively rare. Where a philosophy insists on aims, and these must necessarily be group aims, for philosophies so devised

are intended to appeal to the many, it becomes a prodigal source of neurosis. We see this in the philosophy of Germanism, which lays down that innate in German blood is a divine mission and that this divinity must express itself in the elevation of the qualities of primitive man. The growth of such a philosophy, since its considerable impetus towards the middle of the last century, has been accompanied by the mass development in Germany of psychological abnormality. Homosexuality, adolescent suicide, the gamut of symptom complexes attributable to inferiority feelings, have been rife in Germany for decades. Nazism is the religious outcome of centuries of German philosophy. It has, under its bogus Messiah, achieved the fanaticism and dogma of religion. Accompanying this there has been an outbreak of sadism, of abnormal acquisitiveness, of pathological self-assertion, to a degree never before witnessed in Western civilisation. Concomitant with this has been a nation-wide restriction of ideas approaching the stereotypy found in schizophrenia. A whole nation has become afflicted with an amazing apathy in all emotional spheres, except that of blind hate. The pogroms, the episodic ferocity of the Huns, resemble the state of catatonic excitement in dementia praecox. Their subsidence, in the intervals between these frenzies, into states of emotional torpor governed by a few ideas, resemble the return of the catatonic patient to a state of stupor. Far-fetched? By no means. It is very understandable in a nation led by a hysterical paranoid and a morphinomaniac with pituitary disease, who removed, by murder, his homosexual rival, Captain Roehm.

In defining defects in our present world, one indicates to some extent their cure. But plans, even medical plans, for a new world order, need a separate volume. Contempt for destructive criticism is rather meaningless. It must, after all, precede constructive synthesis. In my last chapter I will deal with the broadest outlines of the latter.

Chapter Thirteen

Neurosis and the Inheritance of Traits of Character

We should not be duped by the misleading and flatulent optimism of the public health authorities. They are concerned primarily with infectious diseases. These are admittedly diminishing. We are concerned with the rising toll not only of the chronic constitutional diseases but with the enormous growth of neurosis. This is becoming a grave national problem. I am not referring to the mere number of cases involved. We are so leavened with neurosis that it affects our national outlook and our capacity for decisive action. It threatens the preservation of ourselves and our civilisation. We evade facts. We procrastinate. We hope for the best. We fail to prepare for the worst. Our national policy in the last fifteen years is one long record of those grievous errors. Neurotic patients often exhibit a symptom called obsessional doubt. They are abnormally incapable of making a decision. We recognise this as a simple medical fact. We fail to see that to a great extent we are involved in this present crisis because our national policy has been widely tinged with neurosis. It should not be forgotten that neurosis is largely a disease of the more favoured classes. Conservative governments, recruited almost entirely from these orders of society, have been mainly responsible for our foreign policy in the last fifteen years. It is also irrefutable that the rank and file, less tinged with the poison of neurosis, have shown more courage and realism than their leaders. The paralysis of leadership in the Western democracies is due to a considerable extent to a widespread inoculation with neuropathy.

This is the most common explanation of the decline of most civilisations. When empires crumble, the focus of least resistance is usually in the higher orders of society. Growth of

scepticism, mistaken concepts of culture, induce a psychopathic outlook in those classes where culture is most accessible and where educational opportunities and freedom for reflection incline to doubt. Later in this book we will see how new social and cultural standards may save civilisations from the neurosis which succeeds their establishment. Life is, after all, something of a nightmare if we are to face the fact that existence is merely a long category of upward impulses, brief consolidations, neurosis, sapping of moral fibre, and final deterioration in blood and misery and decay.

Fortunately in this country the national genius for rising to an emergency has resulted in the extrusion from politics of a puerile bird lover and his anxious satellites.

Widespread neurosis is the most deadly of all diseases from the community standpoint because of its surreptitiously infective nature. We are all aware of the contagious nature of mob panic. We all know the intense suggestibility of crowds. The Germans have utilised this brilliantly by propaganda and fifth column activities. What we do not know is that, outside the drama of war, neurosis can chronically and insidiously induce a debilitated national and social outlook. Democracy prides itself on its care and consideration for weaker elements. Where these latter grow to considerable proportions we are up against a grave problem. As members of a civilised democracy founded on Christian ethics we must adjust our outlook to accommodate the deficiencies of these weaker brethren. To adopt this attitude towards neurotics may lead to the gravest results.

Probably the majority of us have seeds of neurosis inside us. Undue consideration for the established neurotic encourages the development of our own neurotic tendencies. In this war, for instance, the authorities responsible for the organisation of the Emergency Medical Services made one particularly ghastly blunder. They organised Emergency Psychiatry not wisely but too well. They encouraged doctors to look through too exclusively psychological spectacles at those suffering from shock effects sustained in air raids. It is

natural to show tremors if you are blown twenty yards by a bomb. It is not necessary to be labelled anxiety hysteria. The point is not merely academic. Given rational treatment by rest and sedatives the bombed patient may be back at work in forty-eight hours. Labelled anxiety hysteria and fed with the drug of intensive psychological investigation he may stay weeks in hospital. He has been diagnosed as anxiety hysteria. He will obediently produce its symptoms. In actual fact he is suffering from psychiatry addiction, the deadliest variety of all the diseases due to drugs.

Nor is this the end of the story. Doctors can unwittingly suggest illnesses to patients. A large amount of illness is due to the unconscious hypnotism of suggestible patients by too lugubrious doctors. The unforgivable sin in medicine is to manufacture diseases by over-diagnosis. If the medical profession inertly accepts the fact that a large proportion of the community is neurotic, this can only help the condition to spread.

Formerly the neurotic was despised. He had fears. Fear was the attribute of cowards and not to be shown. Now we are careful to distinguish between neurotic fear and cowardice. The distinction is not so absolute as many, doctors and laity, imagine. At any rate neurosis has become justified. It is a permissible disease. We saw in Chapter VI that men largely acquire those diseases from which they are allowed to suffer.

Now the neuroses differ from other diseases in that their symptoms are expressed in modes of conduct. This behaviour is usually what would be considered reprehensible without the plea and justification of neurosis. Fear is despised where neurosis has not been diagnosed. With the aid of this blessed label it becomes an open sesame to sympathy and sometimes a social asset. No community can afford to look with too much sympathy and tolerance on fear, indecision, apathy or paralysis of will, whether this arises from neurosis or no. Such a viewpoint encourages lack of effort, lack of the positive exercise of will, not only in the neurotic subject, but in all but the minority of determined natures who will think realistically and row their

own boat under all circumstances. If the world were always peaceful and prosperous, if all races and nations achieved the same degree of civilisation at the same time, this would not matter. Where the world contains Nazis, civilisation alone is inadequate for existence. It must be combined with virility.

Is there any prospect of reducing the incidence of neurosis? The psycho-analyst believes that more intensive treatment will solve the problem. By such treatment he usually implies three sessions a week for eighteen months, at three guineas a time. The patient is promised psychological rebirth as a result. Few can afford the expense of this double length gestation. An ordinary pregnancy is cheaper. Only a small fraction of the community could ever afford such treatment. Clearly, prolonged analysis is a luxury for the few. Nor is it possible to conceive of public authorities being able to provide such treatment for the poorer classes.

Nor are the results of psycho-analysis sufficiently good to justify the expenditure of money and time. Our increasing knowledge of psychology has enabled us to give our patients better explanations of the origin of their symptoms. We are thus able to do them the inestimable service of increasing their self-knowledge. This enables them to cope the better with their problems. In their fundamental reactions they remain essentially neurotics. Rational explanations added to old-fashioned prescriptions as to rest, exercise and occupation will give better results in the majority of cases than psycho-analysis. In certain types of neurosis, particularly the obsessional variety, I am convinced that, after reassurance and the simplest explanation of the origin of symptoms, attention to the physical health is the paramount feature in treatment. The undue precision, the preoccupation with order, shown by the obsessional, is best harnessed to a time-table embodying proper quotas of exercise, rest and relaxation.

Am I asserting that once a neurotic, always a neurotic? I am afraid so—at any rate in the vast majority of cases. I do not say that these unfortunates are doomed to lifelong agony. Emphatically not. The neurotic may find life in-

supportable. A month in Switzerland may wholly change his view. I do not say that the neurotic will always break down in a crisis. The dead opposite is often the case. Many conduct themselves well. But however well he conducts himself in any trying deviation from his customary routine, he always does so by depleting his nervous capital. This may result in subsequent neurosis. If, however, he has become well ' adjusted,' to use the phraseology of psycho-therapy, he is prone to either functional or organic disease. The neuropathic tendency will out.

Many psychiatrists will not agree with this view. We are the Cinderellas of therapy. We are the last comers in the field. Our immediate medical ancestors ran homes where time and patience were the main factors in treatment. The doctor prescribed small doses of his time. The victim treated himself with gargantuan drafts of patience. People still regard us as the Nihilists of therapy. This is unjust. We employ more violent, sadistic and lethal forms of treatment than those used in any other speciality. But certainly we have an inferiority complex. We tend to see good results where none exist. Psychiatrists are apt to manufacture cures. The general practitioner, who sees neurotics before and after they have received their courses of psycho-therapy, is a better guide to the obstinate persistence of neurotic modes of behaviour.

We do not admit the unalterable nature of most neuroses. It makes us feel helpless. Nor is it logical or humane to convey our intentions to patients who demand, and so need, our reassurance. The Freudian and Adlerian theories are of immense scientific and philosophical value. It is our own fault we have so misused them. We had far better have applied ourselves to using their findings to devise a social order less likely to impose undue strain not only on the vulnerable, but on all mankind in the civilised world.

The psycho-analytic teaching largely denied the influence of heredity in predisposing to neurosis. It stressed chiefly the importance of environmental factors, chiefly those operating in early life. But masses of us are exposed to factors considered

adverse in the light of Freudian teachings. The vast majority of us here in England were repressed in childhood, particularly in relation to our sexual interests. But not all of us develop neuroses. The hereditary factor is still of first importance. After an intemperate fever of hope, even the psycho-analysts are beginning to admit this fact. In twenty years' time psycho-analysis as now practised will be as dead as Moses. The next generation will keep its neurosis—and its money.

In studying the adverse effects of environment the psycho-analyst has limited himself too much to the study of familial factors. We are neurotic because we loved our mothers or were jealous of our elder brothers. We all go through these phases dignified by current fashion with a fine and fanciful nomenclature. After all, the Oedipus complex is pretty universal. And if we persist in adult life at the Oedipus level, with a fine rash of accompanying blemishes, our abnormality is not to be ascribed to our Oedipus reaction. It is a failure in our creative evolution. Some stay at the Oedipus level. Some don't. The factor of predisposition plays a part.

But most of all it is a source of wonder to me why psychiatrists have restricted themselves to the family sphere in their investigation of environmental factors. This is a parochial outlook. It takes too little cognisance of the individual's social and economic station. But most of all it neglects completely the beliefs and social traditions which characterise the civilisation into which the individual is born. This I believe to be the fundamental factor in the genesis of neurosis. (See Chapter XII.)

The lawyer, the schoolmaster and the priest all aim to make us conform to our environment. To his enormous credit the doctor is often prepared to adjust the environment to the patient. It is a pity that he should confine himself to stopping the mouth of the nagging mother. He would be better employed hacking the rottenness from our social system. We must not forget that doctors, good doctors, are essentially rebels. We discovered the facts of anatomy and physiology in spite of the then dominant church. We relieved pain by anaesthesia in spite of the enormous outcry against our

barbarous insolence. When the mentally abnormal are charged with crimes we defend them against a legal system which in some respects still treats such cases with unbecoming barbarity.

It is a pity we have become so social. It is a pity in some ways that the newspapers are so kind to us. It is tragic that we lend ourselves so much to the manipulation of bureaucracy. We are embedding for ourselves a comfortable berth in a crumbling social system. It is bad for ourselves and bad for the people. It helps the system to crumble. We would be better as voices crying in the wilderness against the stupid pattern of current existence.

We will do our best work in reducing the incidence of neurosis by altering the pattern of existence for the whole community. Can we do anything for the neurotics at present existing among us? I have mentioned the importance of the laws of hygiene. There is one thing more. We can help to build character. Psychiatry tends too much to condone faults. Certainly we should not condemn them. But psycho-analysis errs when its curiously emotional practitioners insist on the importance of a detached attitude. By this they infer that our duty is merely to outline to the patient the component errors of his character. He rebuilds himself afresh by his own efforts. How can a doctor be detached? He is a scientific humanitarian. He must not overdose himself with science at the expense of humanity. We are told by our more hectic psychotherapists that their work includes only the analysis of the patient's psychology. When the victim has been broken down, metaphorically and literally, into his component reactions, he must do the necessary remoulding off his own bat. I believe this to be a dangerous fallacy. Neuroses *do* involve defects of character from the standpoint of social usefulness. And whether we like it or no it is necessary to civilisation to be socially useful. Neurotics consult us because, in spite of their own efforts, they are social failures. It is surely rational that we should directly stimulate their dormant social usefulness. Every rational psychiatrist has prescribed productive social

activity for a large number of his patients. It is our duty, within reason, to make demands of them. The doctor fails in his function when he expects patients to undertake all their own work of synthesis. Similarly, the doctor who pampers his neurotic patients is a menace to society. He is not only encouraging the faulty traits in their character. He is authorising a mode of existence which no community can support. In the last few years the public have paid more attention than ever before to the maxims of doctors. It is our grave responsibility to see they are not misled.

Despite this 'synthetise yourself' attitude, psycho-therapy relies largely on the patient's excessive dependence on the analyst. Admittedly the latter is supposed sooner or later to break down this positive transference. Nevertheless it is very true that scores of analysts trail through life like planets accompanied by their bedraggled satellites. One of the most diverting spectacles afforded in this vale of tears is that of the inhibited male analyst, perched ludicrously on the throne of his own infallibility, and worshipped by his coterie. These latter, inadequately female and subject to boils, are busy as bees, gaining by proxy and counterfeit emotion a little of the joy afforded by fierce embraces in darkened doorways. If we aim at restoring our patient as a social unit, age-long dependence is a poor prescription.

I am not arguing that neurotics should be treated rough. I do not wish to lend support to the theory that neurosis is indistinguishable from malingering. It must be recognised, however, that many neurotic reactions are to avoid responsibility and effort. At first they are unconsciously evasive. Later they become contaminated with conscious evasion. Long-term treatment favours this latter mechanism. The doctor spends endless time studying the reactions of these patients. Their defections become distinctions. The patient regards himself as a chosen and precious vehicle of scientific data.

Prolonged psycho-analysis decries the usefulness of will. Symptoms are traced back to occurrences in early life over

which the patient had no control. It helps him to adopt the attitude of a resistless martyr.

This reversed and endless odyssey to trauma in childhood is not very intelligent. In the course of analysis the patient becomes aware that the recollection of some such incident is required. He is usually intelligent enough to realise how his symptoms could originate from an infantile sexual trauma. To spend endless time discovering the exact incident seems to me superfluous. It is no better than courting the King's touch for St. Anthony's fire. The time would be far better spent encouraging the patients to practise systematically the exercise of will. We admit that neurotics are usually immature emotionally. By all means explain to them the mechanism of their immaturity. But let us at least plan for them a belated development of character.

Voluntary sterilisation for neurotics has been advocated. It would deprive us of much potential genius we can ill afford to lose. Worse than this it would be futile from the standpoint of science. If all neurotics and psychotics in England were sterilised tomorrow neurosis and psychosis would be mounting high again in a score of years or less. Patients with such illnesses would be born of stocks at present expressing their essential neuropathy in illnesses we still call physical, like rheumatism and peptic ulcer.

Psycho-analysis is on the wane. Were it to increase it could do an immense amount of damage to the social order. It relegates man to the level of a haphazard mechanism, haphazard because by its teachings the nature of the child is moulded from without by impulses over which he has no control. Free will and determinism are matters for academic debate by metaphysicians. There is much to be said on both sides. The arguments for determinism are as potent as those for free will. But we cannot afford to allow large sections of the community to be impregnated with the determinist doctrines of psycho-analysis. This would induce a state of resistless torpor which would ill fit us to resist the encroachments of modern barbarians. Nor is it any use devising a new social

order if we encourage doctrines which justify the asocial actions of individuals.

We must, of course, recognise frankly that will can only affect the operations of personality to a limited degree. It is well that this should be stressed. One does not wish to emulate the worst excesses of the mind over matter school. We shall see later that civilisation errs in flogging the dying horse and that, in encouraging personal ambition beyond the reasonable needs of man, our social system is in grievous error. We are each born with a particular temperament. This indivisible compound of mental and physical qualities presents us with a certain amount of useful mental and physical property. No one is equipped with a full armoury. Our temperament gives us certain talents. It limits us to certain types of reaction. In the physical sphere we are strong in certain directions. Equally we have particular flaws. The task of the physician is to encourage the individual to utilise this raw material to the best advantage. To this degree we have choice of action. The wise physician, given a sensible patient, can go a step farther. He can point out the chinks in the patient's armour. We can epitomise this best by quoting the remark of Fray Luis de Leon with which Mr. Somerset Maugham concludes his admirable book, *The Summing Up*: "The beauty of life is that each should act in conformity with his nature and his business."

I am not sure that psycho-analysis, in its full fanatical development, is not, of itself, a sign of decadence. It increases the patient's self-knowledge. This is a desirable intention. I often think that the mark of the civilised man is his honest appreciation of his own motives. So many are rendered intolerant and stupid by idealisation of their own self-interest. If psycho-analysis confined itself to discovering for the individual the strength and weakness of his own personality, no one would quarrel with its practice. It would merely be applying the basic principles of rational medicine. But psycho-analysis has made the development of self-knowledge a cult. To know oneself is not enough. The individual must

act on his findings. Too often in psycho-analysis the probing of self deteriorates into a condition of auto-narcosis. The world outside is an unreal and meaningless panorama. The pulse of life beats only with proper force when the addict thickens the air of the doctor's office with a cloud of words. This withdrawal from the unsatisfying world of reality to the wide universe of the unconscious is beautifully exemplified by a remark made to me by a woman patient. She was drenched with the toxins of psycho-analysis. She demanded it. When it was refused her on medical grounds she became abusive. We encounter such attitudes in alcoholics deprived of drink. I was late visiting her on the morning the Huns invaded Belgium and Holland. I used the news as my opening gambit. " What the hell do I care about that ? I've been waiting here for twenty minutes." Withdrawal symptoms !

It is no exaggeration that people may be permanently marred by psycho-analysis. It becomes the equivalent of a drug addiction. The doctor who accedes to requests for further analysis is often in an indefensible position. It is like feeding morphia to a drug addict.

There is no future for psycho-analysis. It embodies such flagrant errors in logic. Its practitioners dogmatise about the content of our mental substrata. How can we dogmatise about something we have already described as the unconscious ? Improvement by psycho-analysis is largely due to the fact that dominant natures are assuming an air of papal infallibility to dependent souls. Transference is an emotional variant of faith. It is, too, the modern version of faith, glittering, expensive, meticulously defined.

I have discussed character formation as a treatment of individual neurotics, as opposed to the doctrine of analysis without synthesis. I am constantly encountering cases where no attempt at character formation has been made. Often these cases have been treated for three or four years. Sometimes the family's capital has been extinguished thereby. I know patients, not a whit better after years of treatment, who have reduced the whole social level of their family by the

expense incurred. I remember cases of patients unable to work, treated for years by psycho-analytic measures, diagnosed as repressed and encouraged to 'let off steam.' As a result they are arrogant and vain, with atrocious manners. These people are sometimes gifted, often with artistic talents. These latter are often not encouraged. It is considered of greater importance that the patient be adjusted first. Some of these patients have had the dubious honour of coming to me for treatment. They have responded to this genuine calamity by letting off steam. I have found it necessary to discourage the repetition of this favourite exercise and to stress the necessity for social reactions. This is probably the only world we experience. It is therefore reasonable to learn to live in it. By reversing the psycho-analytic technique and by encouraging the patients' talents, I have seen many of them achieve life-size jobs and even perform with distinction at creative work.

My action is, of course, criminal from the psycho-analytic standpoint. I add to their load of repression. But unfortunately maturity is integral with a certain degree of repression. We must necessarily restrict the reactions of childhood. If we fail to do so social ostracism and H.M. Prisons are part of our destiny. (The world endures misery because one people has failed to repress the vicious attributes of childhood.) Both these conditions may have undoubted advantages. They do, however, involve social paralysis. Man has learnt throughout the ages that civilisation implies the governing of the lower by the higher nature. And psycho-analysis distrusts too much our surface reactions. If we put a good face on things we are probably repressed and inwardly miserable. The analyst may have judged correctly. But it is necessary that we assume this creditable, false face. The world still requires the trivial courage of common men who hide an inward insecurity with an outward calm. The wide and too fervent practice of psycho-analysis might even involve a considerable threat to the best aspects of the moral order. It opens the floodgates of civilised repression.

Psycho-analysts ascribe much illness to repression of primitive instincts. It would be folly to assert that in consequence they lean towards the primitive rather than that outward crust of civilisation. Yet it must not be forgotten that they freely indict the censorship of the moral order. It is a fact of the greatest interest that psycho-analysis is Germanic in origin. Though its founder was a Jew persecuted by Nazis, its main adherents have come from that segment of Europe infected by the blond primitives. And prominent Nazis, in fits of naïve self-congratulation, have rejoiced in the free admission of their own barbarity.

It might be assumed that I sturdily uphold the moral order. This cannot be so. I ascribe much disease to our social system. I am therefore a critic and not a satellite of the social and moral order. It is a question of what primitive impulses we chose to repress by the censure of morality. It is essential to civilisation that we curb our impulses to assert and acquire beyond our proper needs. To this end we are fighting Nazis. The wrongful censorship in our social system represses the sex and creative impulses.

Transmission of Character Traits

We have discussed character formation in the treatment of individual neurotics. Does this afford us any hope of dealing in the future with neurosis as a whole? This depends on whether or no we believe in the transmission of traits of character. The teaching of psychology only admits the inheritance of instincts. A parent with a predominant instinct of self-assertion may transmit this to his offspring. It is a matter of the first importance that we investigate this question of the inheritance of character. It is not of importance in treating individual patients. It is of considerable moment in relation to the offspring of neurotic stocks.

The opposition of modern psychology to the theory of inheritance of character traits arises from two reasons. Psychology is infiltrated with the teachings of psycho-analysis which stresses environmental factors and minimises the effect

of heredity. Secondly, psychiatry outside the confines of psycho-analysis, accepts too unquestioningly the teaching of academic psychology. Psychiatrists regard themselves as qualified to deal only with the psychology of the abnormal. They recognise that this is a limited and unscientific attitude. They ease their scientific conscience by a hasty acceptance of the principles of academic psychology. They accept the findings of men like McDougall, an ingenious and fallible guide, capable of dogmatising plausibly about the complex impulses of human personality from a study of the instinctive reactions of mice. Having accepted such theories as the groundwork, they establish the fundamentals of psycho-pathology from the verbal utterances and the reactions of adult neurotics and psychotics. The behaviour patterns of these latter adult cases are too complex to permit dogmatism as to the individual's earliest psychological attributes. Neither the academic psychologists nor the practitioners in psychological disease have sufficiently observed the reactions of children and compared these with parental traits. It must be remembered that medical psychology is a young science. All sciences begin in speculation. They next proceed to the study of dramatic and obvious signs. Finally, they study fundamentals. Psychiatry at present is passing from the first to the second stages. Certainly it has not reached the third.

Observation of children and direct questioning of honest parents, does reveal the inheritance of reactions far more complex than mere instincts. I will quote two examples. A child aged two, when taken by its nurse along one of the very main roads of England, manifested not the slightest interest in the passing traffic or in the numerous people walking along the road. She had eyes only for the trees by the roadside. An identical reaction was a main characteristic of the father's infancy. Both father and daughter were quite amazingly tidy people at the age of two. Both insisted on each toy having a carefully defined place of its own in the cupboard. The daughter amused herself from the age of eighteen months or less by picking out tiny shreds of wool from her blankets and

passing them ecstatically over her upper lip. This has continued steadily into later childhood. The father admits that as long as he can remember he has stroked his upper lip with pieces of woolly thread or hair.

There can be no question of imitation in this case. The father sees the child only infrequently and for short intervals. She is looked after by a nurse. The Freudian will seize on this shocking phenomenon as an erotic sign. So it is. A Freudian explanation presents itself to account for both the stroking phenomenon and the tidiness. The latter is an obsessional atonement, expressed in ritual, for a sense of guilt engendered by sexual interests. But the daughter showed her unusual tidiness before the age of two and before she found pleasure in stroking her lips. The child is not sexually repressed. Both parents are well instructed in these matters and without prudery. The child's nurses were similarly instructed. The father considers it possible that his own childhood was repressed.

But suppose in both cases the tidiness and the erotic pleasure were an obsessional reaction related to sex. There is nothing in the child's upbringing to lead her to acquire an obsessional reaction. Yet psycho-analytic teaching insists that such reactions are not innate. Is it a case of an obsessional father providing a nursery atmosphere admirably suited to the development of obsessions in his daughter? He sees her very little. He doesn't interfere. He regards children as a woman's job, though when he does see his children he is very affectionate. Again, if these obsessional tendencies are acquired in both cases, why should they show such identical modes of expression? Why, above all, should they both be so passionately preoccupied with trees? The father has never pointed out trees to his daughter.

This is an example of the inheritance of something more complex than instincts. It reveals the transmission of a reaction pattern. Does this case afford any indication as to the inheritance of character traits? I think so, definitely. Both these individuals have a love of order. This is surely a basis

for character formation. Apropos trees, from his early teens into the middle twenties the father suffered acutely at the sight of a felled tree. His reactions to the cutting down of a wood led at one time to his ceasing to read the newspapers lest they contained news of the felling of timber or the destruction of forests. The daughter was intensely fond of flowers at the age of eighteen months. Long before the age of three she would laboriously collect, and keep, all flowers within sight and would cry if taken away from them. Till his late teens the father was accustomed to pick up dead flowers left discarded in country roads. He simply had to. (It should be said that the accessibility of flowers is not a common factor in this case. The father was brought up in a house without a garden in an industrial town. The daughter lives in a house with a garden at the edge of a main road.) It is palpably absurd to dismiss this love of flowers and trees as an acquired obsessional tendency in both cases. If these tendencies in father and daughter are not innate, why should they reveal themselves in such identical ways?

Surely this inherited preoccupation with flowers and trees is a factor determining the character of both individuals. After all, a devotion to aesthetics typifies a particular kind of character.

It is possible to observe many different varieties of inherited characteristics. I know of one family where a particular method of drinking can be observed through three generations. They do not begin to drink when their lips encounter the cup. They advance their tongues and lap like kittens. (This, incidentally, is a civilised family, in so far as the successful practice of law and adherence to the Anglican faith can be regarded as criteria of enlightenment.) This cannot be explained by imitation. The children were nursery bred. Their parents saw them rarely. They were brought up on the principle that too much contact with grown-ups was bad for them. The psycho-analyst will probably argue that the different members of each generation—they run to large families—caught it from each other. This is a bad argument,

of a kind to which analysts are far too prone. It involves the manufacture of fact to fit theories. How often do we see identical abnormal reactions except in such mass responses as asthma, in families undergoing the same infection from environmental conditions charged with adverse psychological factors? Hardly ever. How often do we encounter a number of brothers and sisters with psychogenic stammers? One may stammer, the other have eneuresis and a third be prone to asthma. We do not find three or four psychogenic stammerers.

I have quoted two undramatic examples by way of illustration. I have no lack of data but this is not a text-book on psychiatry. I am trying to avoid that love of the extraneous which makes psycho-analytical writing the unordered jungle of literature.

It is almost certain that specific components of character are inherited. We transmit, therefore, not merely our instincts, but particular habits of response. Is this surprising? Facial and bodily configurations are undoubtedly transmitted. We need not dwell, in these days of discarded Royalty, on the Hapsburg nose or the Bourbon lip. Is it ridiculous and naïve to suggest that because a son looks like his father, his character may resemble his sire? Not at all. We are beginning to regard the personality of a man as an indivisible blend of body and mind. We have seen the connection between posture and mental make-up. Perhaps these statements are too broad and generalised. This is inevitable. They are humbly made. But above all is it not necessary for medicine to return for a time to the simple generalisations? This is our only means of extracting it from the mathematical morass in which we flounder as a result of the conspiracy between the laboratory experts and doctors who are no more than messenger boys to the high alchemists of biochemistry. Above all, is not medicine slowly returning to the study of man and the investigation of the total personality? And does not this involve the abstraction, from a cloud of data, of a few total entities and the study of a few kinds of men?

Consideration of the possible inheritance of traits of character leads us by natural steps to the question of racial characteristics. Study of these affords us valuable data. Are mental traits embedded in certain stocks? I will take Germany as an example, for the simple reason that to the majority of reasonable men the word German conveys certain predominant mental characteristics. (There is, of course, no single mental trait peculiar to one race. I know of no nation especially devoted to collecting spiders. The British penchant for emulating the ostrich is the nearest approach to an exclusively racial characteristic.)

As Vansittart has well said, the chief German characteristics are envy, self-pity and cruelty. From the more exclusively clinical standpoint one might add sexual inversion, particularly revealed in sadism and homosexuality. According to analytic psychology the constancy of such qualities through centuries is explained by emulation, tradition and the birth of successive generations into an environment contaminated with precepts tending to envy, self-pity and cruelty. This explanation neglects many important points. The ethics of Germanism are those of primitive man, yet the German race has been resident in Europe as long as any other. Why do they remain so largely at the primitive level? Surely this involves an innate retardation in emotional development. The counter-argument is that the mass of Germans remain so because of the power of their primitive ruling castes. But the age of liberal emancipation in the last century eroded considerably the primitive ethics of authoritarianism. Why have the ruling clique in Germany resisted to this day this liberalising influence? They have resisted, evenly and solidly, the environmental influences of a changing Europe. They defy the explanations of the psycho-analyst. Why have the mass of Germans been so submissive to the rule of their primitives? The Weimar republic was a transient exhibition of apparent liberalism. It was bogus. The age of Stresemann was an expression of the tendency of Germans to whine when beaten. German leaders do express the will of the people as accurately,

more accurately, than do the leaders in democracy. Stresemann was the symbol of self-pity. This was the quality uppermost at the moment. All the time they prepared surreptitiously for war. Envy and cruelty worked underground.

Psychiatrists should also be historians. The German race for two thousand years have maintained a carefully conceived national policy of brutality, fraud, opportunism, cunning and terrorism. They have lived in the continent which above all others has been throughout the centuries a pioneer in civilisation. (The United States has only functioned two centuries and is essentially the development of a civilisation transplanted from Europe.) They have a mediaeval history two thousand years long and almost as voluminous as the records of any obsessional treated, and maintained, by psycho-analysis. In the face of these facts it is patently absurd to postulate an endless chain of bad environment, bad precept, repeated accurately through the centuries. Even when transplanted the bulk of Germans remain essentially German. I do not refer to the activities of recently implanted German tourists in countries doomed to the blessings of Kultur. In the United States the Nazi nuisance is recruited largely from Germans resident there for decades.

A further argument of those who do not believe in inbred racial tendencies is that the Germans are a young nation and that their peculiar qualities are to be ascribed to the emotional properties of youth. The Germans are young as a nation and old as a race. The Czechs were an infant nation. They were among the most progressive democracies in the world. The Australians are a young nation, derived from an old race. And so on. Compared with other races there is a tremendous lag in the German's capacity to develop. This is something mixed in the chromosomes. Psycho-analytic explanations can account for the aberrations of individual Germans, or for group reactions in the same decade. Other explanations are required to explain the consistent barbarism of centuries.

Further evidence of the inheritance of mental characteristics more complex than instincts can be obtained from study-

ing the tendency of different races to different kinds of disease. Disease is an aspect of personality. The latter includes mental traits and peculiarities of stature. The striking incidence of some diseases in particular races indicates that in these latter there occurs, in relatively greater prevalence than in other peoples, vulnerable personalities of a particular type. This at the very least implies the inheritance of something more complex than the simple instincts.

Tuberculosis is prevalent among the Irish. Diabetes particularly afflicts Jews. The melancholia rate is high in the Highlands. Norwegians are prone to alcoholism. This latter fact is of particular interest. Alcoholism is also rife in remote districts in Cumberland where the people are amazingly undiluted Norse stock, with Norse surnames and place-names, and with a dialect most strongly flavoured with Norse derivations. The Norwegian settlement of Cumberland occurred a thousand years ago.

Because certain diseases, mainly physical, afflict particular races, it cannot be argued from this alone that character traits are similarly transmitted. But we have seen that chronic physical diseases are often an integral part of, and inseparable from, the patient's personality. It is therefore reasonable to suppose that mental traits also are thus transmitted.

If we believe in the hereditary transmission of character traits it is of considerable importance from the social point of view to encourage positive character formation in neurotics. By so doing we will provide a better psychological environment for the children of neurotics. (If I believe in the fundamental importance of heredity I do not decry the obvious influence of environmental factors. Fanaticism is a dangerous weapon in a doctor.) But of greater importance is the possibility at least that tendencies to stable and social character formation may be transmitted to the next generation. In the individual the nervous system tends to utilise those pathways of discharge to which it is accustomed. The formation and practice of good or bad social habits tends to their continuance. And what we have developed tends to be

transmitted. Our data is not conclusive, but the building of character as a means of combating neuropathic tendencies should certainly be tried. Why? Because rational psychology demands it. Man is a creature of habit. So is his nervous system. If the latter can transmit peculiar mannerisms in drinking, aesthetic preoccupations, a love of order which often merges into a useful conscientiousness, it is at least possible that it will serve the purpose of transmitting traits of social usefulness. At any rate, to stress character formation is to think productively. To practice interminable therapy in neurotics is often to help the persistence of wrongful modes of reaction. But neither method will offer the same results as an attempt to amend the social system. Our nervous systems are wearing out. They are being subject to a long cannonade of strain and intellectualisation. We must change our pattern of life to save more havoc in our tortured tissues. This is, or should be, our main aim. It has no adequate substitute.

It will be thought that I hold gloomy views on the treatment of neurosis, at any rate so far as absolute cure is concerned. I do. So, too, does any honest practitioner dealing with rheumatism, diabetes, pernicious anaemia, peptic ulcer, arterio-sclerosis, etc. I maintain that with rational treatment, on the lines I have indicated, the neurotic may suffer no more disability as a working unit than those suffering from the chronic diseases mentioned above. There is a line of explanation, crude-sounding but justified, which can usefully be applied to these patients. They should be informed that many of us are vulnerable to the stresses of life as lived today, and that in their particular case the nervous system is peculiarly liable to wear and tear. Had they been otherwise constituted they might have suffered instead from rheumatism or dyspepsia. As an explanation it sounds primitive. It has none of the Olympian resonance of the psycho-analyst's. I believe it to be true. At least it is unpretentious.

Book Four

The Comedy of Errors

Chapter Fourteen

"Lead, Kindly Light." Medical Training

It is very necessary to study deficiencies in our training as students and our attitude as doctors. We are more than anyone responsible for erroneous concepts of disease. If we are to help as reformers of our social system it is necessary that our training helps us to recognise its flaws.

The practice of medicine is the study of the personality from a particular angle. The study of personality is not catered for in the training of the medical student. This is not surprising. Personality study is an infant science. In its fullest development it will never be identical with medicine. The latter deals with the shifting circumstances of health and disease. Study of personality may not go further than the indication of tendencies to disease.

But even at the present time our teaching hospitals could do more to encourage students to look on the patient as a whole, to see in him someone whose disease response is a small inlay in the total mosaic of his personality. How often is the student's attention called to the personality factor in such diseases as peptic ulceration, where its importance is absolutely paramount? I have searched diligently through the text-books of medicine recommended to those studying for their final examinations. I cannot find a single reference to the obsessional characteristics, to the inordinate drive, of duodenal patients. Time after time the old dilapidated factors in aetiology are rehashed for the student, *e.g.* irregular meals, too hasty eating. In these hectic days people do bolt their food and do alter radically the hours of eating to suit the needs of business. It is not remarkable that some should develop duodenal ulcers. It is more surprising that the vast majority

should withstand them. The factor not adequately studied is what determines the development of symptoms in the minority.

The explanation lies in the fact that anything pertaining to personality is regarded as a problem for the psychiatrist. The conscientious physican or surgeon, when he recognises the importance of such a factor, relegates its closer study to the psychiatrist. In so doing he congratulates himself on his fair-mindedness and progressive tendencies. Actually, he is demonstrating a reactionary attitude. Personality is no more the particular domain of the specialist of psychiatry than it is the province of the specialist surgeon. How can it be, seeing that personality is an indissectable fusion of body and mind? The most genuinely constructive tendency in modern medicine is the preoccupation with the physical accompaniments of emotional states. This clearly cannot be the province of the psychiatrist, while he is concerned chiefly with a ludicrous bric-a-brac of half-diagnosed conditions called psychological medicine. It would seem, then, that general medicine is the best sphere for the study of personality. Yet general medicine, as at present conducted, takes far too little cognisance of the enormous importance of mental factors in inducing disease of *all* varieties. The state of affairs will not be improved till we correct the state of mind which led us to make psychiatry a branch of medicine. The medicine of the future will be a branch of psychiatry.

The sensible practitioner with a balanced view is often prejudiced against any attempt to further the infiltration of medicine with psychological principles. As a medical student he made acquaintance with psychiatry in a few fatuous demonstrations of full-blown lunatics. The course I attended consisted of twelve lectures. In the first we dealt with the human mind, comfortably, inside an hour. We exhausted the universe, and shared the feelings of Alexander sighing for more worlds to conquer. We endured the rest of the course in a state of inanition. On each occasion a macabre mannequin parade of representative types was provided for our benefit.

We regarded it as an ordeal or a diversion. It was never instructive.

One lecture was devoted to the neuroses. It was not a success. It was not possible to exhibit anxiety or obsessional cases within the walls of the mental hospital. We were an audience inundated with a lengthy prologue and deprived of action.

There is no reason why a medical student before qualifying should learn anything at all about the neuroses. Nevertheless he will find later that it is the commonest of all disease groups. I was particularly fortunate in that the senior physician of our hospital had wandered from general medicine to psycho-analysis via the hospital for sick children. I owe him an enormous debt, though I have learnt since that all sickness is not attributable to masturbation and anal eroticism.

The general practitioner has no objection to rational psychological principles in medicine. He is, after all, their chief exponent. He is *par excellence* the student of personality. It is a pity the teaching hospitals do not teach him the fundamentals of his trade. He has to learn, by experience, by constant error, the part played by strain, unhappiness and maladjustment not only in neurotic but in physical illness. It is a sad truth that the sound general practitioner, after twenty years' experience, is so often in a position to educate those who function as instructors of the fledgling doctor. Unfortunately, the practical healer is seldom the heaven-born teacher. Nor is the practical physician, particularly if he is a general practitioner, afforded much opportunity to air his views. Except in rare cases we do not proceed from general practice to specialisation and staff appointments on the teaching hospitals. In addition, the medical journals show an unmistakable bias against articles recording the results of individual clinical observation.

The psychiatrists themselves help little in furthering the study of personality in medicine. The psycho-analysts are obsessed with purely psychological factors often to the complete exclusion of physical considerations. It is incredible

to what an extent a man can serve an arduous and expensive apprenticeship of six years as a medical student for the sole purpose of turning his back on it. Many of the young acolytes, who after qualifying migrate ecstatically to Tavistock Square or some similar clinic, seem to regard their six years' studentship as a burdensome social duty. This state of affairs is a little better now that psychiatrists are concerning themselves more and more with the psychological aspect of physical diseases. I feel, however, that this again is often merely an attempt to increase the territory to be scoured by psycho-analytic technique. Psycho-analysts have always been ready to explain everything in terms of their own cult. Will they, in studying physical diseases, admit the extent to which these latter are determined by innate constitutional factors, even though psychological stimuli may indeed be precipitating causes? I rather doubt it. Fanatics do not surrender so quickly their claims to possess infallible specifics.

It is not two years since two eminent psychiatrists, Crichton-Millar and Strauss, urged that lay-psychiatrists be allowed to run in harness with qualified physicians. The concept of body and mind as indivisible is essential to the rational practice of medicine. It would be far less harmful to advocate the employment of lay surgeons. Many surgeons are, after all, merely technicians, or such at least is their intention. (No first-class surgeon is merely a technician.) Under medical supervision they could find their way about. The manipulation of entrails is an art attainable by many. (I have often marvelled at the dexterity of housewives in skinning rabbits.) But you cannot dissect the mind from the body. It is indivisible with it. Its treatment should therefore be in the hands of those skilled in the mental and physical aspect of living.

It must be admitted that equally one cannot eviscerate human beings without mental consequences. But sometimes evisceration is necessary. Death is the alternative. The art of evisceration is a kind of responsible carpentry. The idea of permitting operations by lay surgeons is an enormity, but a

lay surgeon, with experience, is less an anachronism than a lay psychiatrist.

The Eclipse of Medicine and the Rise of Chemistry

Expert and accessible laboratory technique is having a disastrous effect on medicine as an art. Clinical standards are declining. In cases where two or three alternative diagnoses suggest themselves, recourse to the laboratory will often clinch the issue. This is well enough in its way. It is necessary to be right sometimes. But reliance on the laboratory inculcates in the doctor habits of mind useless and often pernicious in other aspects of his work where the laboratory affords no help. At the worst he deteriorates into a kind of escorting receptacle for the conveyance of the patient's symptoms to the physician in charge of out-patients. The latter acts as a middle man. He signs the requisite forms and the patient is shipped to the laboratory. How often does the out-patient physician receive a note from a doctor in which the latter, gliding gracefully over the trivialities of signs and symptoms, merely asks for a blood count or a radiograph?

In private practice we see with equal clarity the pernicious effects of too much contact with the laboratory. We are approaching an artificial and retrograde standard in clinical medicine whereby the good doctor is he who demands endless laboratory investigations. You simply cannot have what is called a better-class practice unless you spend a sizeable quota of your time on the laboratory doorstep. I am not decrying the enormous usefulness of many laboratory techniques such as blood counts in pernicious anaemia, etc., but this laboratory addiction has so eaten into the souls of the best of doctors that it is responsible for some amazing anachronisms. If we call in an eminent consultant in an obscure case we seek to impress by presenting him, *before* he examines the case, with a full record of such investigations as have been performed. Failure to do so amounts to a conviction of negligence. When a student in hospital the doctor has been trained to 'have everything ready' for his chief, before the latter makes his

round. But surely, on all rational grounds, what we require of an eminent consultant is a *clinical* opinion. He should scrutinise our laboratory records *after* and not before he examines the case. How many of us have the courage to ask him to do so?

We are therefore approaching a standard of values by which the good doctor is he who demands endless laboratory investigations while the bad doctor still obstinately relies on nous.

The position in medicine is such that pathologists might be forgiven for taking advantage of the situation by staking claims to the right to diagnose. Singularly few do this, but I have heard many express themselves more or less bitterly on the subject of clinicians who reject pathological findings or do not apply them to the full in treatment. In expressing such views the pathologist is wholly unfair to the clinician, unless he is dealing with the qualified charlatan who takes material to a laboratory because it is expected of him, and for no other reason. The pathologist sees only the most microscopic aspect of personality. He studies the actual lesions producing symptoms. It is hard for him to undertand that such actualities are an inconsiderable part of the whole picture. Even the whole orbit of one disease, its pathology, its physical signs and symptoms, is merely one audible voice of a generalised disharmony.

But while the pathologists and biochemists confine themselves to mute and muttering protests, the challenge is taken up on their behalf by a large number of physicians. Our increasing knowledge of biochemistry and physiology has let loose on the public a number of enthusiastic chemists and laboratory technicians disguised as doctors. Their enthusiasm for the brand of medicine they practise is only equalled by their contempt for more rational doctors with intuitive gifts. In these biochemical days intuitive faculties are at a discount. They cannot be measured in a test tube. And after all, the old intuitive doctor, who saw two or three generations of a family through their spiritual, mental and physical problems,

never really got results. He never corrected flagrant errors of metabolism. He merely made his patients *feel* better. In fact, he was a noxious quack. Our ambulant chemist, starred and studded with the decorations the Royal Colleges bestow on those with the dubious virtue of remembering all they read, do actually *cure* their patients. They correct their errors in metabolism. They supply the missing chemicals and automatically, though often contrary to the rules of clinical observation, the patient is vastly better. If his pains persist and his symptoms remain unresolved, he is merely cantankerous or a hopeless neurotic. The doctor retires, feeling appropriately ill-used. His attitude is similar to but less assured than that of the psycho-analyst. Both feel, when the patient fails to respond, that at least he has been afforded the priceless and unequalled privilege of the only therapy.

There are in this country a number of expensive nursing homes which exist for the sole purpose of investigating every reaction the ingenuity of the presiding physician can devise or the luxurious boredom of the patient can suggest. These homes seem to exist chiefly to convert their patients into elaborate card indices. It is significant how many such patients come to roost ultimately in the halls of psychiatry. Half an hour's careful study of the patient as an individual would have spared so many expensive and boring preliminaries.

But it must not be thought that biochemical preoccupations have altogether removed from our midst the careful elucidation of physical signs which is the prime foundation of medicine. The London hospitals still turn out each year a large number of doctors impeccably adapted to elicit the most delicate reflexes but wholly unfitted to see with their eyes, to hear with their ears, and to size up people as a whole. They have not been taught to do so. A few are born with such gifts. Many teach themselves. A good doctor is made by six years' expensive training and six years more costly self-reproach for failure and wrong conceptions. His teachers should spare him a little of this. They make the terms of his apprenticeship mediaevally hard. But the worst feature is that these self-made doctors

do not graduate from their general practices to a speciality and from thence to the teaching hospitals. The latter are falling more and more into the hands of young 'scientists' whose knowledge of human nature is often appalling. These people are setting the pace of English medicine. It is a hot pace. There are a remarkable number of young F.R.C.P.s about. But they have often a monkish unworldliness, an addiction to the abstruse, and tremendous vanity. They make laws for society from no better material than their own strong opinions. The most distinguished representative of this type occupied himself teaching that sleep was a kind of luxury for the effete. Nervous diarrhoea, too, required no treatment. The unfortunate patient had merely to abstain from visiting the lavatory.

Foreign Influence

We are, or were, a race of individualists. As such we are qualified to cope well with the study of personality. English medicine has suffered greatly in recent years from Germanic and American influences. Our tendency to self-depreciation has led us to wander from our own pre-eminent traditions. The English temperament is suited to medicine. We had the knack of getting under other peoples' skins. (It is sad to use the past tense but our pre-war policy permits no other.) This is the main ingredient of the good physician. Germans are our inferiors as practical physicians. We have been duped by the enormous amount of literature emanating from Germany and Austria. It is better for a doctor to see than write. (I feel a little sinful myself as my pen lurches obscenely across these pages.) Many German universities demand a thesis for the ordinary purpose of qualification. Such literature is largely redundant drivel. The good clinician, cursed with the plague of self-expression, sees much, thinks more and writes little. Comparé Hippocrates and Sydenham with the elephantine efforts of the Herr Professors.

The German is preoccupied with order because of the disorderly condition of his own mind. He loves to classify,

Human beings resist classification. It is significant that the harsh delineation of personality types has been attempted chiefly by such Teutons as Kretschmer and Jung. We do imperatively need the study of personality. We cannot afford the rigid artificial concepts of Germanic thinking. When finally we do study the total personality in disease we must do so as clinicians and not as medical valuers of job lots. Cautious English exponents of the Teutonic principle realise that disease rather than man is a ready material for classification. Even in medicine we meet our genius for compromise. We have therefore a flourishing school of investigators, very skilled in the separation of new disease entities, mostly in the spheres of neurology and psychiatry. I do not decry classification. Clear aetiological concepts are necessary for future treatment. But some of the new disease categories insult our reason. This tendency is seen at its worst in the description of such conditions as shelter throat, suburbanitis, etc. We are reaching a state of affairs where a new aetiological factor is sufficient reason for describing a new disease. Yet to those still unsubmerged by the spate of nomenclature it is clear that in the future we will have simpler categories of disease reaction. This is inevitable, because we will classify disease in terms of dysfunction of the main systems of the body, like the nervous system and the ductless glands. We will no longer separate diseases according to multitudinous symptoms and physical signs.

The German is not intuitive. He is therefore reduced to laborious synthesis. This explains to a large extent his immense achievements in laboratory technique. This is no substitute for intuition. The German is half technician, half mystic. Psycho-analysis originated in the Germanic world. Psycho-analysis is mysticism with a dash of scientific sanction. It, too, cannot replace intuitive faculties.

We have also succumbed too much to the American influence. The organisation of American medicine is superb. It is cursed with the desire to run to schedule. Their medicine is too concerned with the conversion of patients into card

indices. They are the spiritual fathers of the nursing homes and the clinics for endless investigations. They have been busy for some years on a bastard science called psychometry. This aims at expressing the psyche in terms of mathematics. We have all been through this phase. I once wrote a paper on the differential diagnosis of depression by the use of mathematical formulae. Should I ever develop delusions of unworthiness I will cry to God chiefly for forgiveness for this awful sin. It was committed in the intemperance of protracted adolescence.

The Americans are more cursed with the biochemical doctor than we are. We caught it largely from them.

The Americans are a young people. They scour the universe too quickly. They draw conclusions from trifling data. They flood the world with nostrums, each in turn a six months' fashion. They are very retrograde in their hunger for specifics. They have few errors of intention and many of judgment. Yet if they have produced some of the worst medicine in the world they have also accomplished the best. Most creditable of all they are far ahead of us in connecting somatic symptoms and mental states.

The Slaughter of the Innocents. Medical Education

There must be a radical alteration in medical education. Medicine is an art. It must be taught as such. We cannot teach students how to handle patients. We can indicate the vital importance of such a quality.

I think that the artistic approach to medicine could best be encouraged by demanding a higher standard of general culture from medical students. This, for economic reasons, is clearly impossible. I do not advocate any lengthening of the course. It is so long and expensive already that it denies access to many members of those lower classes on whom we must largely rely in the future for our rehabilitation as a race. Much valuable time could be saved by the deletion from the curriculum of much matter completely useless to the average practitioner of medicine. At present we have a preliminary

course in chemistry, physics and biology. It is argued that medicine is rooted in these rudimentary sciences. The usefulness of physics is vague, that of chemistry is undoubted. The standard required in both is too high. Matriculation rather than higher certificate standards would be adequate.

Biology is in a different category. It consists of botany and zoology. All forms of knowledge are useful, to those who find them interesting. In this life we cannot afford all that interests us. The botany I learnt was entirely useless to me as a doctor. The microscopic structure of the cabbage throws no light whatever on the function of the thyroid. The whole structure of the same vegetable is no help in the study of man. The cabbage does not suffer. Even as a psychiatrist I have gained nothing from botany. Study of pollination helps little in dealing with sex problems.

Zoology is more important, but I see no reason why it should not be incorporated in an abbreviated form in the physiology course. The medical student is concerned only with comparative zoology. This could, with greater logic, be taught as part of physiology.

What is gained by the dissection of dogfish and the study of grass? It is sheer hypocrisy to say it has any direct value to the doctor. Nine out of ten medical students have forgotten all but inconsiderable trifles of zoology, physics and chemistry by the time they have qualified. The number of doctors who remember a single detail of their preliminary course after ten years' practice is negligible. I think the most serious reason likely to condone such a waste of time is the plea that in our preliminary course we are inculcated with scientific habits of thinking. To achieve such habits is clearly a good thing, but such a purpose would be achieved better by closer study of human physiology. My comments on the importance of the endocrine and autonomic nervous systems are a sufficient plea. Furthermore, there should be instruction in applied physiology when the student is actually at work in the wards. This should lay special stress on the physiological accompaniments of emotional states.

We can ill afford to learn merely in order to acquire habits. The substance of what we learn should be usefully employed in our means of livelihood. I question much if botany, physics and chemistry are as much use to us as the groundwork of psychology, ethics, theology and social history. Heaven forbid that I should advocate separate courses in each of these branches of learning. We have enough tabloid culture already and the unnecessary enrichment of university chests by people stricken with the itch to learn blindly, for learning's sake, is always a pathetic spectacle. But we should have incorporated in our curriculum a section on social medicine incorporating the teachings of the above sciences.

Social medicine should have no derivations in any political creed. It should not even be taught from the sociological standpoint. It should teach the effect on health of religious and philosophical beliefs. It should trace the connection between morbidity and social values. It should outline how educational standards, in seeking to elevate the mind, can corrupt the body. It should teach, not merely occupational diseases, but how the general tempo of industry induces morbidity. It should above all disclose how man's health as well as his happiness, depends on his concepts of purpose.

The teaching of anatomy is ridiculously detailed. It is spread over at least three terms. I shall always regret the hours I wasted in the anatomy room at Oxford. I had none of the qualities that make the anatomist. My instructors were careful to leave me in no doubt of this. Under the impetus of pride I worked hard and passed out well by such prodigious feats of memory as anatomy encourages and which are found elsewhere in particular brands of imbecile. I gained thereby a fleeting distinction at a subject I found loathsome and which, except for its broad outlines, has been entirely useless to me. This is not merely a personal view. Most students loathe anatomy. It could be made more interesting and useful by being abbreviated.

I consider that the anatomy of the nervous system should be taught more carefully, so as to link up better with physiology

and to provide the student with a better understanding of the genesis of morbid symptoms. Apart from this, anatomy, except for specialist students, should be confined to a study of the distribution of the main viscera and the connections of the principal nerves. As to morbid histology, the time spent staining sections seems merely an attempt on the part of the authorities to prove that life is endless. I myself had the good sense to make no collection of my own. I borrowed a friend's and passed adequately on his efforts.

These scientific prologues to medicine are overdone. Medicine is an art. To learn the technique of an art it is necessary to handle its raw material as soon as possible. In the great age of painting the acolyte was apprenticed early to a master. Nowadays, at any rate in England, he attends schools of art till he is well beyond the plastic age. The results are singularly unhappy. It would be well if students walked hospitals at an earlier age. It is no disadvantage that at first they would be lost and bewildered. Under the present system we suffer the same convictions of impotence. Students would be led to rely on the primitive faculties of observation. This would be advantageous. There is nothing more blinding than to approach patients armed with a few pseudo-scientific and half-digested formulae.

If more preliminary training is required such studies as contribute to the knowledge of human nature are of more importance than dissecting dogfish. One can make a strong case for a rational study of the arts of literature and the drama in so far as they depict the vagaries of human personality. From the best dramatists and the best novelists the student will learn broader and more applicable conceptions of human psychology than those formed hazily in the imponderable web of psycho-analytic theory. He will learn that men are not to be taken at their face value, that he who cries most may suffer least, that courage is a more powerful armament than drugs, that love is not stronger than, but has the benefits and the peace of death. But both life and money are short. Few of us start our working life with ideal equipment. We must

fashion our tools as we go. For this reason and because, too, literature is no substitute for life, I would reiterate that it is better that we should as students confront sooner those who are the raw material of our art. Even if we are at first confused we should remember that by devoted observation we may learn lessons that all the skill of our teachers will never interpret. After all, in medicine, two fundamental and unteachable gifts are to discover those who suffer and to recognise those who are about to die. I fear that too much bogus science reduces these two essentials to the level of incidents.

When the student does come in contact with clinical material his efforts are largely misdirected. It is a complete anachronism that as much time is given to surgery as to medicine. The vast majority of qualified doctors do no surgical work. To them the main function of surgical teaching is the recognition of conditions which are the surgeon's province. This knowledge cannot be acquired hastily. Much of it could with profit be incorporated in medical teaching. Surgical crises are, except for accidents, to a considerable extent the end results of medical conditions. The separation as a distinct entity of surgical pathology is an illogical contrivance. What one most criticises is the endless waste of time in the operating theatre. It is well to know the classical operative procedures. It is profitless to ask students overburdened already with the need to study so many specialities, to observe endless repetitions of the same technique.

In both medical and surgical wards the student is handicapped by the tendency of his chiefs to specialisation. The surgeon for whom he works has often a special penchant for thyroidectomy. The physician may collect gall bladder cases. The unfortunate student produces endless case records all essentially the same. Case taking is one of the most important activities the doctor performs. It is always laborious. But the endless reiteration of the same clean-cut histories is simply wasteful.

Attendance in specialist departments such as radiography

consumes time that could be spent to a better purpose. The specialist in medicine is foolish if he does not himself examine and interpret the pictures he receives from the radiologist. The general practitioner has rarely the time to acquire such proficiency. In addition, his patient is often X-rayed on the instigation of the specialist he called in.

In anaesthetics, too, the student uses all manner of skilled techniques he will never employ in practice. Certainly every doctor should be able to give anaesthetics. If we breed a race of physicians incapable of coping with any emergency with reasonable skill we are doing a disservice to the profession and the community. But, apart from emergencies, the lay-out of the profession today prohibits the general practitioner from employing techniques or undertaking responsibilities usually the province of the specialist. The general practitioner who, in anything but rural or small-town practice, sets himself up as a manipulator of elaborate apparatus for anaesthesia, or who undertakes to interpret X-rays, is in a socially and professionally untenable position. If anything goes wrong he is for it. This being so, why saddle him with the necessity of imbibing so many of the minutiae of specialisation in his student days?

Therapeutics is not adequately taught. Clinicians indicate lines of treatment. It is also possible for the student to amuse himself in the hospital pharmacy seeing how high his pills will bounce. The real technique of prescribing is neglected. I am the last person in the world to advocate reliance on drugs. It is for the contrary reason that I believe the student should be given proper instruction in therapeutics. We are breeding a race of doctors who prescribe only proprietary medicines. Many of these are useful and certainly no worse than traditional remedies we have used for centuries. But this kind of therapy is making us more uncertain of the physiological action and proper usage of the few sheet anchors in therapy we possess. Nor in many instances are the proprietary preparations a great advance on the old pillars and props of the Pharmacopoeia. For instance, belladonna is probably as

useful in the relief of many types of spasm as bellergal or any of the bellafoline derivatives.

There is, however, no doubt that the newer preparations relieve actual symptoms far better than their classical precursors. The drugs used nowadays are often beautifully prepared and a large proportion attain a considerable standard of efficacy. Doctors are nowadays probably the best symptom stoppers the world has known. From the standpoint of physiology the too-precipitate deletion of symptoms is regarded as dubious. We have all pondered how advisable it is to inhibit fever, etc. I am not viewing the removal of symptoms from this aspect. We commit sins far worse than this mere physiological blasphemy. The removal of symptoms hides from the patient his fundamental problems and maladjustments. It saves the doctor the trouble of unravelling them.

But doctors are busy men. They must cope with immediate contingencies. The best way to cope with contingencies is to study the background in which they arise in order not only to ease the immediate situation but to prevent recurrence. We must therefore spend more time with our patients on our first two visits. This applies mainly to the chronic constitutional diseases. Any honest doctor will admit that these, more than others, consume his time. A proper appreciation of the environmental circumstances of disease will help him to reduce his subsequent visits. We pay more visits to our private chronic patients than we can spare. If we cannot wholly cure their diseases we can arm them better to fight their recurrences. They must be made to realise those maladjustments and adverse environmental and constitutional factors which render them prone to disease. They must learn, if not to amend, to side-track them. How much recurrence of symptoms in duodenal and thyroid cases, to quote only two examples, is due to lack of proper explanation and specific instruction on the part of the doctor? It is no good saying this is a libel on the profession. It happens all too frequently. The doctors may, in the case of both the illnesses quoted, lay down the most elaborate regimes as to diet, rest, etc. The patient may

be able to repeat these like a litany. But ask him how the condition arose and why it tends to recur? You get no answer. Until doctors are prepared to inform patients boldly and emphatically as to the blind spots in their constitutional make-up there will be much unnecessary suffering and an enormous wastage of medical effort. We cannot stay constantly at the patient's side. We should teach him his flaws and the symptoms arising therefrom. We can encourage his self-reliance. When he calls us too often we have only ourselves to blame.

But most of all doctors themselves must look on disease as a reaction of the whole man. Its symptoms are the protest of the total personality. It is difficult to see how such principles can permeate our teaching hospitals with any alacrity. They infiltrate more readily the minds of general practitioners. It is a pity that we have not more men who become specialists via general practice. This occurs more in the Dominions and the provinces in England. Perhaps post-war decentralisation will help to achieve this desirable end. Meantime we should remember the debt the profession owes to the provincial general physician. He built up our tradition as the finest clinicians and humanists in the world. Parry, Heberden, Jenner, Mackenzie. These names will be remembered when the diligent doctor chemists have long passed into limbo.

Chapter Fifteen

The Art of Medicine and the Cult of Violence

At no stage in medical history has there been so much research activity. This interests the public not a little. The age of scepticism has seen a great growth of interest in popular science. The public demands explanations from scientists in the same way as it previously accepted truths from the theologians. It also wants concrete benefits. Disbelief in a world to come inclines us to get the best from this. The public are not satisfied to appreciate a little the aims of medical research. They want results. We are not yet able to supply them sufficiently. But because of this public demand for dramatic cures doctors are making feverish and discreditable efforts to meet this demand. We employ, with irrational fervour, all kinds of unscientific, illogical and dangerous techniques. There is in this no element of conscious malpractice. We believe what we prefer to believe. It is, after all, comforting to regard ourselves as wielders of powerful curative instruments. We are also in danger of believing that what is new is automatically valuable. A new cure is suggested. It is taken up by the newspapers. We, as well as they, run it to death. The heaven-sent therapy fades from notice in a couple of years. Something new arrives. We work it to death.

To a certain extent this has always been so. Enthusiasm outruns reason in science as elsewhere. The situation is worse nowadays in that our infallible recipes are so often violent and sometimes lethal. At any rate in one department of medicine we have, in a craze for progress, unknowingly receded to the level of the blood-letting and purging physicians of an earlier day. In the next paragraphs I will speak only of the new techniques in psychiatry. It is the best department in which

to study the excesses of the new thought. The possibility of cure in mental conditions is less than in most other diseases. This inclines psychiatrists to greater therapeutic violence.

In the last few years we have had insulin shock therapy and treatment by cardiazol and its derivatives. Now we have electric stimulation of the motor cortex. These methods depend on the induction of convulsions. The technique has a certain mortality. Fractures occur in a proportion of cases. The treatment is terrifying to the patients. A gratifying recovery rate is claimed. If the latter contention is true then these techniques have some justification. They were formerly used chiefly in schizophrenia. I suppose there is justification for the use of dangerous techniques in incurable mental illnesses. But the articles heralding these methods were, in the main, written a remarkably short time after the treatment had been given to the patients. Everyone knows that long remissions occur independent of treatment in schizophrenia as in other mental illnesses.

This hasty rushing into print on the subject of new techniques is a deplorable business. If you open medical journals you will as often as not discover that there are in one and the same issue several articles giving different authors' experiences with the same new remedy. This is not research. It does not indicate even the possession of genuine scientific instincts on the part of the writers. It is rush work. It symbolises that one is in the swim. Many of the authors claim to have observed cases for long periods after treatment. When one sees six articles on cardiazol in one issue of a medical journal it seems a curious coincidence that the authors should have ceased their devoted and lengthy observations at the same time. And these coincidences occur so often.

The writers of such articles are mostly institutional doctors. Medical superintendents give keen encouragement to young doctors enamoured of these dramatic techniques. Mental hospitals have not been noted in the past for therapeutic endeavours. A few rush jobs in the sphere of shock therapy serve to amend this reproachful reputation. In private

hospitals shock therapy has been utilised to fill beds previously deserted. A little preliminary writing in the journals helps the business.

Now there is no proper proof that these methods show a recovery rate which justifies the attendant risks. In psychological conditions the criteria of improvement are more vague than in other branches of medicine. It is easy to tell when a patch of pneumonia resolves. Mental changes cannot be estimated with such facility. It is a sad truth that psychiatrists observe so often what they wish to. It is a pathetic attempt to conceal a relative and unavoidable impotence in therapy. In the present state of knowledge we cannot do much to cure mental patients. It is a relief to think otherwise. But self-delusion is a poor therapeutic weapon. I will quote an example of this tendency to believe the desirable. It is said of the newer electric shock therapy that the patients are not terrified. This information is derived from the physicians in charge. The patients tell another story.

But one most quarrels with the rationale of such treatments. One of the main arguments for convulsive therapy in schizophrenia is that schizophrenics rarely have fits. They do, to some extent, but no one will question the general truth of this remarkable discovery. But patients suffering from rheumatic fever and piles are not commonly subject to fits. We can therefore anticipate an age of enlightenment when the whole universe will twitch obediently in the name of therapy. We must never decry the usefulness of therapeutic agents because we do not fully understand their physiological action. It is merely a question of the extent to which we are satisfied that they *are* useful. It is a few short years since insulin shock was instituted. It is little used now. Two summers ago the cardiozol convulsion preceded the European crisis. The former is dying to dull embers. The latter remains. It seems as if even their most fervid exponents have abandoned belief in the usefulness of these techniques. I give electrically induced convulsions another eighteen months. At the end of that time its glamour will have faded. It is already being

replaced by something of greater dramatic value, the severing of tracts in the brain for obsessional and anxiety states. When we consider the aetiology of anxiety and its origin in innumerable visceral and psychological causes, this operation seems particularly appalling. An exponent of this technique, interviewed by the press, said, with a smile, that it was possible after such an operation that the patient might not worry enough. This loutish mauling of the nervous system is a most ominous sign. The sadism of the age has infiltrated the minds of many practitioners of psychiatry. They will soon advocate the solution of man's worries by severing the connections between the higher and lower centres. As decerebrate animals these unfortunate patients will thus be reduced to the biological level of their physicians.

Soon there will no longer be need for such misguided vocalists as the Dowager Duchess of Hamilton to raise their voices against the vivisection of animals. We practise it already in human beings. I remember well the case of a patient suffering from fixation hysteria, with urethral pain. Exhaustive investigations revealed no physical cause. It was decided by one neurologist, one psychiatrist and one surgeon that no organic lesion was present. Having drawn this conclusion they decided to operate! A chordotomy was performed. The pain persisted. The patient was subsequently treated by electric convulsions, which he survived. He died following the severing of his brain tracts. I repeat that the only tenable diagnosis was hysteria, a view not solely my own, but shared by the best neurologist in England.

The trouble is that exponents of this blood and thunder technique adopt a high moral attitude. They condemn as negligent those physicians who fail to avail themselves of these therapeutic facilities. This attitude is not, I believe, hypocrisy. They have a genuine belief in their mission. It is just one more lamentable example of what horrors can be performed when physicians fail to appreciate the factor of personality and that medicine is primarily an art.

The evolution of these particular techniques has no counter-

part in medical history. Convulsive therapy originated from a preconceived idea. It was then tried out on large groups of schizophrenics. The electrical shock treatment started with epileptics, and then discharged its salvos at schizophrenics and manic-depressives. I now learn from one of its most enthusiastic supporters that it is not much use in schizophrenia —he described its good effects as a revelation less than a year ago—but it is just too marvellous in depression after blitzes. I cannot seriously believe that depression after bombing is so intractable a condition that it must be treated by shock therapy. The vast majority of patients will recover reasonably quickly by rational means without having their vertebrae cracked in the process.

I am not criticising the application of these shock techniques in carefully selected cases, as where patients are showing steady psychological deterioration despite careful treatment, or where, in psychotic or profoundly neurotic subjects, other therapy has failed and there are urgent social and economic reasons for decline to be arrested and improvement initiated as soon as possible. There are excellent and reputable psychiatrists who utilise these shock methods. My quarrel is with those physicians who practise each new technique on the wholesale basis and expose large groups to a cavalry charge conception of therapy, without proper discrimination and with hazy criteria of their suitability for treatment.

There are many different versions of shock therapy. We get protein shock and the artificial induction of pyrexia. They have come and gone. Was there ever such an age of violent improvisation and quick forgetfulness? The treatment of general paralysis by malaria is the only method which has to any extent withstood the test of time. Some forms of shock therapy were inspired by the observation that physical illness so often improved the mental state of patients. As I have argued elsewhere, this may well be an expression of the interchangeability of disease.

We have seen that a cardinal error in medicine is our insistence that we possess specifics we so patently lack. Such

treatments as electric shock are a violent and intemperate reaction to the realisation that specifics are absent. Both standpoints are wrong. We would be better employed in admitting that in the present impasse specifics are available for few conditions and that our remedy is to advocate less production of morbidity in the general social system. We cannot expect to find specifics for many diseases while civilisation continues to bombard its victims with a barrage of noxious stimuli which tend to maintain their tendency to disease.

Twilight of an Art

We have stressed more than once that medicine is an art with personality as its raw material. We find a dreadful refutation of this in the too willing co-operation between doctors and publicists in manufacturing new names for conditions not new at all. Shelter sore throat is an appalling definition. It covers different kinds of well-known throat conditions contracted while resident in shelters. Why not red-headed rheumatism and Wiltshire haemorrhoids? Evacuees torn from the exclusive culture of Bloomsbury to the outer darkness of Bristol are prone to suburbanitis. This pride in nomenclature has a twofold implication. Firstly, the drama of medicine is steeped in bathos. Secondly, doctors still persist in thinking of diseases as external and disembodied entities having some rapport with the environment and none with personality.

I read in the Editorial of the *British Medical Journal* for June 7th, 1941, that this war has produced no new diseases. There is something poignantly masochistic in this little phrase. Is it necessary that this war should produce new diseases? Did the last? Was shell-shock a new disease? Must hysteria change its description in different ages? How many shell-shock cases never heard a shell burst? The medicine of the future will simplify the present hotch-potch of diseases into far fewer biological reactions than we contemplate at present.

Our decline from the artistic standpoint is revealed by the briefest perusal of the medical journals. These are over-

weighted with articles by institutional doctors, and group records from cases collected in hospitals. We do not often encounter articles expressing the artistic outlook, and giving a clinical picture of the individual in the throes of disease and the amendment of his personality thereby. We find no vivid, unforgettable writing on the lines of Osler's masterly descriptions of typhoid and tuberculosis. The editors demand the statistical. They ask for control groups. They decry the crudities of visual observation. My observations on striatal tremor induced by testosterone were sent in an article to a certain journal. It was returned without comment. The salient passages were decorated with exclamation marks. I had observed these signs with my own eyes and I am not conspicuously hallucinated. I have few illusions about my moderate competence. I have no grouse that the editors thought little of my article. They have, after all, treated me handsomely in publishing large tracts of third-rate applied mathematics wrung painfully from my tortured brain. What is more important is that the editor, a firm believer in exhibiting the benefits of electric convulsions to groups of patients, should find my careful individual observations so divertingly ingenuous.

These abovementioned violent forms of therapy have an interesting common feature. They are applied speculatively to large groups. When one particular disease has been exhausted, other squads, representative of other diseases, are quickly recruited. It looks almost as though the therapist were seeking a single and universal panacea, a kind of philosopher's stone to cure all ills. We see the same tendency in departments of medicine other than psychiatry. Sulphanilamide is used in an increasing diversity of conditions. No unbiased observer will question its general usefulness. We are, in fact, in a transition stage in which we are getting away from special specifics for special maladies. So far, so good. The use of sulphanilamide is a healthy example of a healthy tendency. But in contemplating these violent psychiatric techniques it seems that a sense of our insufficiency has induced

in us a series of violent compensations. Our psychiatrists, lacking even the specifics afforded the general physicians, have run to drama in their different conceptions of the universal panacea. No one blames them for seeing some single therapy of universal benefit. What a pity it wasn't verandah treatment, or even disciplined humanity. Where we are short of cures and seeking cure-alls we should choose something which always does a little good and is never harmful.

Chapter Sixteen

Medical Organisation

MEDICAL services are badly organised. This is recognised. Members of the profession are agitating for a State Medical service. The nature of the agitators is such that any State service moulded to their wishes will perpetuate the vices of the present system and garnish it with further crimes against the art of medicine.

Our hospitals have largely ceased to have curative aims. They are largely for the collection of unusual cases of diagnostic interest. There are two main criteria determining the admission of medical cases. Firstly, the case must be of unusual interest. This is justified in teaching hospitals. Students must be instructed in the rarer maladies. The number of teaching hospitals is infinitely small compared with the rest. The general practitioner may only encounter examples of these rare diseases once in a dozen years. When he does he obtains specialist opinion. It will be urged that the rarity of these diseases, and the existence of facilities for obtaining consultant opinion, are insufficient reasons for depriving the student of the opportunity of seeing them. I agree, but such diseases should not be collected to the exclusion of common complaints. From study of these latter the student develops habits of accurate observation which will serve him well when coping with all conditions.

We must remember, too, that the packing of hospitals with such cases often prevents the admission of early cases of the common diseases. When hospitals are congested, early cases of hyperthyroidism and duodenal ulcer, etc., are obliged to wait endlessly for admission. It is often impossible for such cases to rest adequately and benefit by medical treatment at home. They drag on somehow and sooner or later need operation. Adequate provision for the early treatment of

such cases would save later the violent and defeatist technique of surgery.

In hospital we do our best for cases with the worst outlook. Too often we do our worst for cases with good prognosis if taken early.

We often find wards distended with too many cases of one disease. This is often to meet the needs of a physician anxious to write a paper. It is wrong to inhibit such activities. We need to increase our knowledge. We must also treat the sick. It is true that increased knowledge leads to their subsequent benefit, but while we are acquiring such knowledge our patients need treatment.

These difficulties could well be solved by raising the status of infirmaries for the chronic and incurable. The medical appointments in such institutions have never ranked high. First-class consultants should be appointed to these as well as to hospitals more intended for the cure of patients with more acute conditions. Humanity and science demand it. I myself have never encountered so much scientific material as in institutions devoted to the care of the chronically sick. That it has not been properly utilised in the past is due to the fact that the institution doctor has been therapeutically inert. The appointment of first-class consultants to such institutions would provide them with admirable material for original work and would serve to stimulate the resident doctors.

The critical condition of the patient is the next criterion for admission to hospital. The claims of such patients are indisputable. I think there should be special hospitals, or hospital wards, for such purposes. In the future it is imperative that there should be widespread hospital facilities for the treatment of early cases. As I have indicated before, in many of the chronic and constitutional illnesses, as well as particular forms of treatment for each, there are certain therapeutic requirements common to all. They need rest, relaxation, fresh-air treatment, and harmonious surroundings. As indicated elsewhere they need something analogous to an enlightened spa regime. So much illness becomes chronic

because in the early stages domestic and economic factors do not permit the patient to obtain adequate rest, peace of mind and relaxation. I shrink from advising the construction of more hospitals. They are not the most suitable memorials to medical wisdom. Such a course of action is necessary because we have allowed our hospitals to become places for hopeless cases to die in. We should conceive of them as places to benefit the recoverable.

It is a tragedy that so many excellent little cottage hospitals throughout the country have deteriorated into spheres of activity for the general practitioner with surgical leanings. These hospitals are crowded out with surgical cases. They exclude the countryman's wife who needs medical treatment not possible at home. Such conditions help to ingrain the habit of illness in those we should help to cure.

The efficiency of general hospitals is paralysed by the multiplication of special departments of doubtful usefulness. The main duty of a hospital is the adequate provision of ordinary medical beds. This fundamental obligation has inadequate dramatic value for the lay committees and lay secretaries responsible for hospital administration. These latter think in terms of so many operations performed (results not stated), so many anaesthetics given, and grandiose electrical and mechanical installations for treatments of dubious benefit. There are few hospitals in the country where you will not find the combination of an age-long waiting list with some costly white elephant installed, at enormous expense, in some special department.

I will not discuss the question of a state medical service. I have on other occasions spilt ink and verbiage on the subject. It is a colossal question. It merits a text-book to itself. I will not catalogue the pros and cons. I will make two points only. Its chief exponents stress unduly the scientific aspect of medicine. They require specialist facilities for all. This would be admirable if it gave the public the services of that best of all types of consultant, the general practitioner *in excelsis*, as exemplified by Osler, Hutchinson and Horder. Such men,

gifted in all the scientific aspects of medicine, achieved greatness in their appreciation of the personality factor. I fear current medicine does not produce any quantity of such types. Were the devisal of a state medical service in the hands of such men as these we would feel easier. As it is we can only view the future with grave disquiet. I am trying hard to restrain any impulse to dogmatise, but I do feel that the most hopeful tendency in modern medicine is our growing appreciation of the factor of personality in inducing disease and determining its nature. It is not easy to believe that the bureaucratic intellect which is determined to instal State medicine and mould its pattern will have any interest in this viewpoint on medicine. It is possible that the progress of medicine may be retarded a couple of centuries. We may be due for a dark age, more blind, more impotent, in masquerading under the cloak of enlightenment.

Secondly, the organisation of medicine will be State controlled. As doctors we have an urgent duty in helping to refashion a new world. It is an inauspicious beginning if we immediately bow to the bureaucratic requirements of an exhausted era.

Chapter Seventeen

The Nature of Health

Fallacies in the Stock Prescription

Reasonably planned regimes including open air, study of dietetic factors and exercise are of universal value. It is not easy to find circumstances in which the first three can be responsible for any harm. So much cannot be said for the vast majority of therapeutic aids. Yet despite the ubiquitous usefulness of these four measures it cannot be denied that often they do no more than defer or minimise disease in the naturally sickly. On the other hand, many sedentary people of unhygienic habits, who never exercise and live behind sealed windows, continue to enjoy full health.

In England the cultivation of health is pursued chiefly through the medium of exercise. Our pursuit of health is often peculiarly ill-balanced. At school it is often employed as a violent antidote to original sin. Boys play football not only to attain moral grandeur but to avoid bad habits. Yet increased animal health usually abets desire. This fact escapes the notice of the masters.

Our conception of physical culture largely implies exercises designed to increase the tone of our muscles. This is irrational. Generally speaking most people's muscles are abnormally tense from our current mode of life. Most of us need to relax our muscles. There has always been a proportion of the community willing to practice physical jerks. Few have any conception of the nature and aims of relaxation exercises. Exercises commonly used in physical culture are often appallingly unphysiological. The term jerks adequately covers their nature. They are often abrupt and unrhythmical. The deliberate administration of shocks to the musculature is contrary to all natural physiological reactions.

We must remember, too, that physical culture especially

attracts neurotics. The desire to compensate for a sense of inferiority is often expressed in the development of layers of muscle. These muscle-bound 'perfect men' with gargantuan muscles, are often neurotics with inferiority feelings. Physical culture is an obvious field for some types of hypochondriac. It is easy to see how some obsessionals express their desire for perfection in the studied cultivation of their own health. This neurotic factor leads the physical culturist to overreact. He attains improved musculature. His health remains vulnerable. I feel there is too often this element of neurosis in physical culture of current vintage, as practised by private individuals. It is not just that it is an obvious channel for the expression and sometimes the correction of neurotic tendencies. More important are its aims, either unavowed or expressed in the highly moral blurbs which accompany many manuals of physical culture. There is always the implication that the latter is an additional weapon in the battle of life. We battle too much already. Such systems lay stress also on what is called chastity. We are in all conscience repressed enough. These systems encourage man to eschew his pleasures. We get too few as it is. Plenty are available. We have grown incapable of using them properly. Physical culture was at its height thirty or forty years ago. It came at a time when men believed that success was a Christian duty, that professional failure was a sign of moral perversion, that God was a member of the Stock Exchange and that masturbation rotted the brain. Physical culture is scarred with the errors of this period.

The systems of physical culture on a community basis appear to avoid many of the worst errors of the older systems. Nevertheless they are pretty bad. The B.B.C. physical jerks programmes are far from first-rate. There was one particularly disastrous female instructress, with a voice like a fretsaw. Her sessions included no instruction about breathing. The latter is an essential, not only to increase oxygenation by deep inspiration, but because deep expirations are an excellent method for inducing relaxation of muscles and mind.

Organised games are in a better pass. They are more tinged with pleasure. The public school system unfortunately does something to delete this virtue. One learns that it is nobler to play games than to abstain from so doing. Bogus moral grandeur is less healthy than pleasure and relaxation. Many public school men, and others, do not derive real pleasure from their games till long after they have left their school or university. Third-rate haphazard tennis is of greater benefit than first-class rugby with a depleted sense of enjoyment and a moral aim.

Organised games, at the school age, have two main disadvantages. There are not sufficient gradations in the type of game to suit varieties of physique and temperament. It is either Rugby or nature study, cricket or the boy scouts. Most boys actually too delicate for strenuous games prefer to strain themselves playing Rugby rather than wear for ever the deplorable insignia of field botany. Secondly, the usual school games are often too tonic in nature. As played by experts they are rhythmic, relaxing and truly harmonious in the best Greek sense. There is, after all, something beautiful in the sight of someone moving like Obolensky on a football field. But everyone cannot attain the perfection of the natural athlete, by which I mean one who uses his muscles economically, harmoniously, with a minimum of effort. The Rugby scrum is too often an outlet for the stiff, heavy-footed, blind application of weight. In soccer the leg in kicking is often checked before its full excursion. It is possible to reach eminence in cricket by a firm-footed, rigid and inhibited technique. God knows we have seen this enough in professional batsmen in recent years. They, the paid scions of our national game, have been the living physical and mental embodiment of the natural neurosis of safety first.

For the average person such games as tennis and swimming are probably more relaxing and so more advantageous. Exponents of the cult of exercise commit many physiological blasphemies and in so doing encourage the operation of vicious circles. For instance, it is held that the condition called

'liver' is associated with deficient exercise and overfeeding. It is, very often, but pre-eminently it is a sign of fatigue and many people of sedentary habit afflicted with liver are people excessively active in the mental sphere. In addition it is an affliction of boat-race crews. One can say that here it is an expression of physical fatigue. But it is very specious to talk of physical and mental fatigue. Fatigue is an end-product of strain impinging on the whole psyche. It is expressed in physical and mental factors though, at its initiation, as with most morbid processes, it is primarily mental in origin. This is necessarily so in that morbid emotion is the commonest of all precipitants of disease of any sort. This being so, the treatment of fatigue is essentially the correction of the morbid condition inducing it. Regular exercise in the fresh air may cure liver in sedentary subjects because of the implication of respite and holiday implied in such activities. The oarsman's liver attack is associated with the colossal expenditure of physical energy, but it is essentially caused by the strain of training, the constant reaching towards higher planes of perfection, with the tension of anticipation as an added factor. Athletes acquiring liver attacks while in training are best treated by allowing them to lounge about for a day or two, in fact by prescribing what is traditionally and erroneously supposed to induce attacks of liver.

In concluding these remarks about exercise it should be recalled that the trained athlete is a very vulnerable proposition from the psychological standpoint (*vide* Chapter X).

It is stressed that balanced diets and the ingestion of vitamins are necessary for perfect health. I never fail to emphasise the vitamin factor in children I treat. I deplore the fact that orange juice can no longer be obtained for my own children. I think I have been terrified by contact with those most assiduous and charming of biochemists, the American laity. These delightful people, scouring tirelessly round the cities of Europe armed with guide-books and vitamin pills, which they are so willing to share that it is mannerless to refuse, have influenced my views on vitamins.

But there is considerable evidence that varied diet and prodigal vitamins are not necessary to perfect health. Norway provides Europe with probably the finest physical types. The rank and file Norwegian lives largely on potatoes and salted fish. The north-west Highlander, another individual of super-physique, fares little better. Some native races notorious for power of resistance and tireless labours rely on one or two staple articles of diet. In such communities to some extent it is only the fit who survive, so leaving a pure and undegenerated stock. But this is not by any means a universal rule. Were this so we would expect to find, coincident with our fine physical types, a high mortality in infancy and early life. We often do, but not always. Infant mortality is low in Norway.

I think we approach nearer the truth by studying the type of life led in such communities where we find together fine physique, high resistance to disease and inadequate food according to the criteria of the dieteticians. Practically all such stocks are engaged in outdoor occupations. The Highlander fishes or farms. So does the Norwegian, who, in addition, is strongly addicted to the sea. There is abundant evidence that continuous exposure to air and sunlight produces an adequate vitamin content in the tissues, though the diet may be subnormal in accessory factors. We have learnt that in rickets the sun may largely substitute the more strictly medical treatment we prescribe.

It is of significance that Norwegian and Highland stocks do not stand up conspicuously to high-geared urban conditions. They become prone to tuberculosis. They take to alcohol. They acquire psychological disorders. Their vitamin content may be adequate when they lead what is called the natural life.

But there is a second point of greater significance in this question of adequate vitamin supply in our diet. An amount of vitamins adequate for the fisherman and sailor may be insufficient for the more intellectualised existence which typifies modern society. After all, we are acquiring increasing evidence as to the particular importance of vitamin therapy

in nervous and psychological diseases. Vitamin B is particularly useful in neuritis, whether of the organic or functional variety. (In the light of my wider conception of the neuropathic disposition and because neuritis is often part of the rheumatic diathesis, essentially a strain condition, I feel justified in speaking of neuritis in this connection.) It is also an invaluable adjuvant in those cases of extreme malnutrition which occur in some mental diseases, particularly in senile melancholic conditions, and which seem almost an adult version of marasmus. Vitamin B, too, is of immense value in peripheral neuritis due to alcohol. When the Norwegian or Highlander, having migrated to the town, takes to alcohol, it may well be that its particularly deleterious effect in him may be due in part to the fact that his tissues are habituated to a Vitamin B content below that required for urban industrial existence. Nicotinic acid is of great usefulness in confusional and other psychotic states, etc.

The vitamin factor is being revealed as important not only in conditions more directly associated with the neuropathic diseases, but also in those physical diseases with strong psychological derivations. For instance, in duodenal ulcer vitamin deficiency is postulated as an additional causative factor.

The view that careful study of the diet is an essential factor for health is largely disseminated by those with naturally bad digestions.

Fresh air is one of the most universally beneficial factors. I will not discuss why. Nor will I deal with the different varieties and uses of this kind of therapy. Yet many people remain perfectly well in the most ill-ventilated quarters. Naturally healthy people have often a distaste for fresh air in the home. This applies particularly to people living out-of-door lives, and those engaged in field sports. The horse who has been out all day loves a dark stable. Many fanatics for fresh air in the home are really cases of claustrophobia. It is not so much that they desire fresh air *per se*. Open windows symbolise freedom and combat the feeling of being shut in.

I have already given adequate space to rest and relaxation.

It remains to be said that doctors shirk writing the positive prescription of rest. They know often that their patients will disobey. Economic factors so often compel such disobedience. Many patients recover because they have already been put to bed by their relatives before the doctor arrives. Intuition, common sense and sound tradition anticipate the medical prescription.

Yet too often no amount of rest will replenish the depleted energies of neurasthenic personalities. Each decade we produce more and more neurotics who require for the happy and healthy functioning of their psyche an amount of rest which neither they nor the society in which they live, can afford. How can it be otherwise seeing what an important part is played by heredity in disease, and how inherited traits are predominantly transmitted through flaws and abreactions in the nervous system, the guide and regulator of our psyche through which we appreciate, or generate, fatigue ?

Later in this chapter I will make some short final references to this subject of rest and relaxation. The pressing necessity of the subject justifies reiteration of the topic.

The Pyschology of Health

It is clear, therefore, that programmes with a proper allotment of fresh air, rest and exercise, with careful consideration of dietetic factors, are not in any sense the sole requirements for health.

The patient's outlook and philosophy are of immense importance. This is most evidently logical because health is a complex subjective sensation. A man's philosophy may be determined by similar subjective sensations. After a good meal, well digested, we experience visceral sensations of repletion and gastric repose and a more generalised sense of well-being. Some people have more prolonged experience of such feelings. They tend to be reasonable, equable and calm. They are natural philosophers. Conversely, cults of ambition, creeds of self-mortification, impel the harassed body to greater excesses. It is no longer capable of producing

pleasant gastric sensations in the process of digestive function. Its overtensed muscles fail to evoke those pleasureable kinaesthetic feelings which are the main bases and the prime inductors of physical and mental repose. The result is that the individual fails to achieve a reasonable feeling of well-being. He is therefore unhealthy. He suffers from this undesirable condition because he feels he does, and health is essentially a feeling.

I wish doctors would realise more the subjective aspect of health. It is irrational to diagnose men as fit because no demonstrable lesion is revealed. Yet this is often done. I am the last person in the world with any urge to over-diagnose and over-label. To rely so much on objective symptoms to the exclusion of the patient's subjective feelings is safe enough in many kinds of neuroses. Our function here, indeed, is often to persuade the patient he feels better when we know he doesn't. To adopt the same attitude in more physical conditions is often lamentable. It falsifies our understanding of disease. It leads us often to miss entirely the functional prelude to organic conditions. The fact that health is largely a subjective experience makes it enormously dependent on psychological factors. These latter are innumerable. When we have not tried to elicit even one or two it is folly to describe our patient as sound because physical signs are absent. In so doing we miss the premonitory whispers of physical disease.

Very fallacious inferences as to health are drawn from the observation of huge groups undergoing systems of physical improvement. Military training is a good example. It is profitable to study its effects. The vast majority of recruits in the first two or three months show an enormous improvement in physique and health. This is rightly attributable, among other things, to fresh air, better food, regular exercise and rest, etc. But when training is over and campaigning begins there are noisome billets, bad or sparse food at irregular intervals, grossly broken sleep, etc. In addition there are periods of intense fear and the brutal battering of the senses by shelling, air bombing, etc. Despite these adverse factors

the improvement in health is maintained in the vast majority. We do not realise sufficiently that, in spite of the periodic horrors he experiences, the profession of arms has psychological advantages compared with civilian occupations in our day. These advantages have a considerable influence on health.

After enlistment the soldier is a unit. His individual responsibility is shelved. If he has a wife and children he deplores his separation from them. He accepts it with appropriate resignation. He suffers less than when, in civilian life, his conscience reminds him that money is short and he has to support them. His social sense is disturbed no more by the need to maintain appearances. In short, he becomes a fatalist. Fatalism is often a password to health.

Again, the soldier is living on his simpler instincts. He finds it less wearing than civilian conditions. (This is often discovered almost ecstatically by people taken for the army from intellectualised or clerical occupations.) His pleasures are more meaningful. He gives himself up to them completely. Every moment stolen for pleasure is something won from fate. He finds joy in simplicities hitherto unregarded. He discovers pleasure even in a chance to rest. His attitude to sensuousness is better than ours, despite the hardness of his life, its hazards, and the strong possibility of its extinction. Denied the pleasures possible to him as a civilian, he finds intense joy in trivialities. He surrenders to these latter with a completeness he has rarely known before. He finds rest in an atmosphere of horror. It is pathetic that we only learn to live when we are due to die.

Such factors as these just outlined are as important as fresh air, exercise, etc., in maintaining the health of the soldier.

In civilian life, too, health is greatly dependent on the factor of responsibility. In medicine we carry onerous burdens. The life prospect of doctors is poor. Teachers have the grave duty of character formation in the young. The profession is saturated with neurosis.

The degree of security enjoyed by the individual has an enormous influence on health. Occupations where wages are

based on payment for what is marketable are mostly unhealthy. Journalism was a deadly trade in the days when payment was in direct proportion to space covered. On the other hand, pensionnaires, particularly when the pension begins in middle life, live long and are relatively free from disease. The same applies largely to people with private means.

Climate

The climatic factor was regarded by the Greeks as of first importance. In England our climatic studies are very crude. We realise that in the tropics there exist a diversity of diseases not found here. We realise that in relation to the continent of Europe we in these islands are afflicted particularly with rheumatism and chest conditions. The laity realise that some places are bracing and others not. In this matter a considerable section of the profession is less instructed than the public. In slow convalescence after not too serious illness the doctor will stress the benefits of sea air. He will advise that somewhere south, like Torquay, is suitable for victims of chronic bronchitis. His meteorological studies seldom go beyond such crude considerations as these and in general he restricts himself to rheumatic and chest conditions. Even in our present state of knowledge there are other physical diseases influenced by climate. Duodenal ulcer and hyperchlorhydria are in this category. Response to cold east winds is a diagnostic aid in these conditions. Migraine and liver conditions are prevalent in relaxing climates in the West of England. I am convinced that in Bath and low-lying areas in its vicinity climatic variations, at present indefinable and inexplicable, cause widespread liver disturbances often misdiagnosed as gastric flu. I have encountered similar phenomena in a Norwegian valley. There the conditions coincided with diminution in the water level of an adjacent lake. This association had been carefully observed for years and was unmistakeable.

Climatic factors may have a general effect. They may be either tonic or relaxing. They may also induce derangement

of function in some particular organ. The proverbial example is the east wind touching the liver. But there are any number of intricate and remote effects traceable to climate. Patients with refractive errors in vision find these tend to grow worse more rapidly in changing residence from the bracing east to the relaxing west. This is possibly due to the aforementioned disturbance of liver function in relaxing climates. Some circulating bile products have a toxic effect on the muscles of accommodation. At any rate the above example illustrates the unexpected effects produced by climate.

This factor plays a considerable part in psychological conditions. Generally speaking the south-west is bad for constitutional depressives. They do well in the south-east on the strip of coast from Brighton to Worthing or on the downs behind it. They do well, too, in the downland country farther north.

These are a few ghostly intimations of the importance of the vast subject of climate.

Modern Life breaks Natural Laws

In all communities, savage or otherwise, where life displays even the rudiments of organisation, there is a very considerable agreement on absolutely fundamental principles for the maintenance of health. Though western Europeans may go to bed at a different hour from that chosen by African natives we all regard it as proper to retire at some fixed relation to twilight and, in the different seasons, at a fairly constant hour after sundown. We recognise this rule even when work or pleasure keep us from our beds till after midnight. We admit that we 'keep late hours.' Throughout the world we recognise that man should not always labour. We rest in Europe on the seventh day. They act similarly in America. Differences of environment and climate do not alter this habit. Jews, too, have their Sabbath. Throughout the world people recognise the need for short rests at brief intervals.

We still observe the echo of a Lenten fast. Elsewhere in the world man uses the same method to relieve the congestion

induced by the relative inertia of winter. Mohammedans fast strictly at Ramadan. In England only the religious observe Lent strictly. The rest of us are begining to fall in line. We take orange juice cures in expensive establishments for weeks on end. Diet is a more variable factor. It differs according to climate or economic circumstances. Nevertheless on the whole, considering the differences of race, religion, colour and climate, it is remarkable that the laws governing health are of such similarity throughout the world.

In modern civilisation there is an increasing tendency to break these laws. We work at night. We do not break our day in the middle with an afternoon rest. We go to bed late. We prefer artificial sunlight in a dingy attic in Harley Street to natural sunlight. The surplus fat is beaten off us by bath attendants. We prefer this to taking exercise. We develop the intellectual and neglect the physical aspects of our psyche. Modern life breaks natural laws. It does this more each decade.

As doctors we have long ceased to teach requirements for health. In this we are no more culpable than other doctors here and elsewhere, at other times. Except in Greece medicine has never deliberately tried to instil the principles of hygiene into patients. In the classical age these principles were incorporated in treatment. They were its sheet achor. We will ultimately return to this infiltration of therapy with the laws of hygiene. I imagine that we will have to wait longer before we help people as a whole to live more healthily. Prevention must always come last.

Some of our modern psychological methods are taking us still further from natural laws. Psycho-analysis regards it as enough for the patient to know the workings of his mind. Often they give no instructions as to rest, sleep or exercise. Doctors who do are often regarded by analysts with some contempt. This is deplorable if only because there are many neurotic disorders where treatment by hygienic methods still gives the best results.

Another disastrous result of psycho-therapy is that it lends support to the crudest application of the ' mind over matter '

themes. There is a tendency to belittle factors previously held, from time immemorial, to act adversely. Insomnia, we are told, does no real harm, nor does constipation, nor does overwork, because it does not exist, etc. Dramatic examples are quoted, as of surgeons operating three days and nights without ill effects, or people working the clock round for days and entirely sleepless. Always the subject suffers no harm. But it is unwise to hurl overboard the accumulated wisdom of centuries. The individual may suffer no immediate symptoms from his three days' operating. It depends on his attitude of mind. If he is in revolt against the monstrous obligation thrust upon him, he may collapse quite soon. On the other hand, it is possible to achieve an attitude of mind even in responsible jobs, where one experiences no conscious feeling of strain. There is so much to do that it can only be done on the mechanical reflex level. (Doctors have personal experience of this kind of reaction when overworked in epidemics.) We become the servants of fate. We are therefore preserved. But such an adjustment is only possible to few. For the rest, and they are the vast majority, the fatuous and inaccurate reassurance that insomnia doesn't matter can have only a bad effect on generations already too prone to live irrationally and excessively.

Such fallacious teaching directly contradicts the experience of the last war, during which we learnt that if he be pushed hard enough, any man will break sometime. Even if the individual, living so irrationally, suffers no ill effects, this is not to say that he does not impoverish the vitality available for his offspring. A great deal of this 'mind over matter, stand anything' stuff is the compensation of self-important neurotics with Napoleonic dreams. They like teaching it. It gives them big feelings. I suspect they would stand up badly to the excesses they recommend to others. Some time back I met, after years, one who taught his students, myself included, his 'sleep don't matter' hypothesis. There had been, in recent weeks, a little business of bombing from the air at night. He looked quite frightful.

Much of this dramatic disregard of fundamental health laws comes from the infiltration of medicine with half-digested psychological principles. Psycho-analysis implies that the solution of our inward complexes is all that matters. Let them be adjusted and we are free from scathe. Psycho-therapists also insist that excessive work, excessive pace in living, is not the cause of illness. All, all, is maladjustment. You can work all day and night if you are happily adjusted to it. Again I prefer to rely on the wisdom of centuries.

Herein lies a deadly danger in psychiatry. It poses as the emblem *par excellence* of the progressive attitude in medicine. The public regard it as such. In some ways it is excessively reactionary. It encourages people to adjust to abnormal modes of life. Confusion disguised as enlightenment is more deadly than mere stupidity.

Work and Health

It is very necessary to discuss briefly the quantitative aspect of work in relation to health. After all, we spend more than two-thirds of our waking life in work and sleep. The working class do not work so hard as their forebears two to four generations back. They certainly work harder than peasants before the age of industry. One does not venerate the good old times, but it is undoubted that it was left to the industrial age to inflict the worst barbarities on the poorer classes. For these the standard of living was actually higher in the sixteenth than in the middle of the nineteenth century. The professional and business classes undoubtedly work harder. If hours are not actually longer work is more intensive and competitive. Despite the fact that the neuroses and chronic constitutional diseases have increased coincidently with our intenser labours we are still afflicted with the cliche, 'Hard work never killed anybody.' This is a fallacy. It is a relic of the striving, buccanneering individualism of the industrial age, when employers found it necessary not only to work hard themselves, but to exact excessive efforts from their serfs. In actual fact people in soft jobs do live longer. The Anglican

clergy are long-lived. One does not wish to libel them as a whole, but undoubtedly their set duties are few, particularly in country districts. and though no one wishes to minimise the devoted efforts of humble priests in the slums and industrial areas, the clerical output of effort is, as a whole, trivial compared with that expended in such a profession as medicine.

We have argued that rest, relaxation and pleasure are factors vital to health. It must be admitted that work takes up the greater proportion of our time to the exclusion of these three necessities. Including the time taken to travel to and from one's work, and the time consumed by meals in between, the peace-time average for hours of labour is probably from half-past eight to six. Doctors and members of similar arduous callings would be glad to consider their working day as ending at six. Yet when we become sick from neurosis or psychosis we are in part treated with a new therapeutic weapon called occupational therapy. This implies the teaching of handicrafts to patients. It is of great value in cases where the patient suffers from lack of interest and initiative and inability to concentrate. As such it is useful in not too deteriorated schizophrenics and in melancholia. But, like all new treatments in psychiatry, more particularly like the forms of shock therapy we have considered, its exponents claim for it a far too universal usefulness. Many patients are neurotic because they have never learnt to rest. As soon as they exhibit signs of so doing they are dragged off to learn some handicraft which they will never employ again when they return to duty after a recovery delayed by occupational therapy. Obsessionals have often a cult for perfection. Typical melancholics are conscientious and self-blaming. To some of these patients the prescription of handicrafts is not therapy at all. It is an addition to symptomatology and a kind of cruelty. The obsessional shows too much drive at his weaving loom. The melancholic blames himself for his errors in rug-making and regards these as evidence of original sin. Much that is done in occupational therapy involves such powers of concentration

that it would be vetoed by conscientious doctors, caring for sick patients in their own homes.

For generations men have recognised the evil effects of continual stress and excessive labour on life and health. Capitalist regimes initiated the hard work kills nobody opinion, a hypothesis floated by a new class exacting long hours of labour from its employees. Psychologists regard maladjustment to work, and rightly, as more productive of morbidity than mere excess of work. These are lopsided conceptions opposed to the Greek idea of human activities being conducted in rhythmic harmony and to their dictum, "Know thyself and be moderate in all things." Now while it is clear that we need more rest, and more freedom from mental stress, it is equally certain that man will need to depend more and more on activities of mind. Return to the so-called natural life is an infallible cure for all human ills is a pathetic fallacy. Cults urging such retrograde movements are initiated by neurotics and third-rate physical types. I have seen too many distraught neuropaths let loose on the land, converting even market gardening into a form of frenzy. My natural curiosity would have led me long ago to a nudist colony had I not heard too much of the arthritic joints and ugly postures to be seen in such establishments. Nature cults would have an inhibiting effect on culture which, whether we like it or not, is associated with sophistication and increasingly urban patterns of existence. The end result of civilisation is neither the city dwelling neurotic nor the village natural.

We cannot escape the increasing utilisation of mind which accompanies civilisation. We must see that mind is employed in greater harmony with body and not in ruthless dominion over it. The conception of mind dominating and driving matter is harmful. It produces symptoms referable to both mind and body. It disintegrates the psyche's essential harmony. Mind and body must coalesce rhythmically. We must conduct our daily activities in a more relaxed manner. This sounds trite. Truth habitually does. The examples I quote are equally tinted with the obvious. When tired we

drive our cars hunched forward with fingers gripping the wheel with unnecessary force. We drive not better, but much worse, from so doing. If we consciously relax we drive better and are less exhausted. If we find a succession of phone-calls is necessary we grip the receiver as we would a hammer and thrust our fingers in the dial slots as though these were Hitler's eyes. When we are connected we utter an unnecessary press of speech and waste our energy in over-emphasis. In all these cases the agitation of our mind calls for a meaningless excess of physical expenditure. If we consciously relax in such occupations we achieve greater efficiency and less exhaustion. Conservation of energy in mechanical spheres begets greater efficiency and durability. There is a law of mechanics embodying this truth. It applies also to the human organism.

These observations have an irritating simplicity. I am resigned to the prospect that many will find them banal. I humbly submit that they are merely the trivial offshoots of a greater concept. When the Greeks urged the ideal of the healthy mind in the sound body they most emphatically did not visualise the perfect man as a tense, stock exchange hustler till Saturday lunch time and a castigator of golf balls and his even more tortured body at the week-end. They implied the rhythmic coalescence of body and mind. This is implied in the practice of eurythmics where the body responds, with its musculature relaxed, to external impressions, usually music, received by the senses and transmitted through the nervous system.

We realise that athletic genius embodies an effortless grace in which mind, eye and muscle synchronise for efficient and economic performance. The trouble is that we have not realised that this same coalescence of our different attributes can, and should be achieved, in intellectual and business activities. We appreciate that in sport a man should move rhythmically, in wielding his cricket bat, in response to the ball he sees with his eyes and appreciates with his mind. The same healthy and economic principles should apply in man's more stressful occupations. It is ludicrous that a man should

merely stand and move well in the sphere of athletics. It is more necessary that we do this in our work, which occupies so much more of our time. That we do not is revealed in the number of lamentable postures and states of over-tension we see everywhere. And these statural and muscular abnormalities are incarnations of strained and pathological psyches. They are both emblems and associations of disease.

I wish to emphasise clearly that in stressing the importance of relaxation, practised not only as a therapeutic technique but in everyday life, I am fully aware of the fact that for years to come we cannot anticipate any diminution in the amount of work apportioned to us. It should be realised that the relaxed technique in working makes not only for health but greater efficiency. In virtue of it we are able to concentrate thought and delete worry. We do not dissipate surplus energy on useless tension or purposeless exhibitions of drive. The tense, hustling technique is neurotically induced. We would be best without it.

I am preaching no soft gospel. Relaxation increases will power. It can be used as a prelude to auto-suggestion, for the increase of character and, *ipso facto*, the development of will. Decisions made when relaxed have less emotional bias. They are less prejudiced by fear. Will and drive, as understood today, are mostly bogus. They are obsessionally derived. Those who boast of them most, who pride themselves on their ability to carry on despite this and that infirmity, are really incapable of will. They carry on because they cannot stop. They work endlessly because they cannot think. Their god is work, because they are incapable of the higher faculty of joy. Society is determined by such as these.

Do not forget that to a large extent the pattern of modern society, our very government, is determined by the abnormal, the neurotic, the diseased. In recent years we have had a spate of books devoted to the disease symptoms of the presumably great. Different standpoints are expressed in these graphic case records but the underlying motif is that of men of genius producing superb achievements in spite of horrible

infirmities. It should be realised that here we are very often not dealing at all with the operations of will. In many of these subjects the latter are absolutely integral with, and inseparable from, abnormal temperaments. The ferocious and fevered rise to power of such people is an abnormal compensation for disease. Morbidity has often a tremendous motivating power in producing achievement. I doubt if we are justified in bestowing the adjective great on what is an expression of disease. Our justification depends on the social usefulness of the achievement. But so many of the superheated Napoleons we produce in such lavish crops contribute nothing to the social system except bad maxims, wrongful techniques of living and incarnate examples of the art of self-delusion. Perhaps the United States has produced more of such types than we have. At any rate they are learning their lesson quicker than we are. Relaxation was principally initiated, and is still most practised, in the States. It has been well said that the Americans, having first learnt to be tense were the first to realise the need for relaxation.

Our tendency to think and act tensely, as a result of our generalised anxiety state, is responsible for our having lost, to a large extent, the art of contemplation. As I have said, we use our minds as muscles. Yet often our most original and constructive ideas come best in a state of relaxation. It is common to find people who do their best thinking passively, undeliberately, in a hot bath, or when lying in bed. I believe that mental and muscular composure is a common preliminary to truly original thinking. We cannot clutch at ideas. They 'come' to us. I believe that constructive genius in thinking lies essentially in the preliminary emptying of one's mind. This is possibly the most difficult to attain of all mental accomplishments. It is innate in a few. It can be acquired to some degree, and in many by learning relaxation, the art of deliberate self-composure. This art, because health is a sensuous subjective condition, offers the patient the possibility of inducing health within himself by the conscious direction of his mind. This is not an empty and unconfirmed hypo-

thesis. It can be verified clinically. Pulse rate and blood pressure can be lowered by relaxation. Hyper-acidity can be controlled. Pain can be aborted. I refer chiefly to the control of nerve pains and pain from visceral disease, but I have heard of at any rate one authentic case, in an Englishman, where dental extraction was performed without the aid of any anaesthesia other than that induced by deep breathing and relaxation and where the dentist swore the patient had felt no pain.

This question of a more consciously relaxed technique in living is related to the subject of habit in health. We have seen that the modern pattern of life is conducive to morbidity in that it breaks the laws of health. We know that much disease is attributable to changed habits and occupations. But is the dependance of our health on good habits due to our tense technique of living? Is it, for instance, of importance that we go to bed early, rest periodically, have our games and pleasures, our week-ends and holidays, because we conduct our working activities with a prodigal surplus of energy due to overtension? Have we in the last several generations acquired the supremely evil habit of tension as a concomitant of that widespread anxiety state which, in its turn, is a sequel of the irrational aims and the foolish frustrations with which we are willing to torture ourselves? We saw that in the uttermost crises of war our civilians, converted into soldiers, first benefit from the healthy habits acquired and maintained in their training. Afterwards in actual campaigning, where the continuance of good hygienic habits is impossible, they maintain their health to an overwhelming degree considering the hazards to which they are exposed. (This applies mostly in those who fight in Europe. In tropical environments there are other factors at work. Here it is not to be wondered that many go sick. It *is* surprising that the majority stay healthy.) The soldier, as we have seen, is schooled in fatalism. He lives resistlessly. He braces himself only to fight. In the intervals his tension is less than that of civilian bread-winners. Perhaps when we have learned a more relaxed technique of living,

when we are less resistant to the encroachments of fate, we will find that the best habit is to have no fixed habits at all. Such an attitude would at least expose us to less harm from the shifting hazards of circumstance and environment. Till this day comes, however, it is better for our neuropathic civilisation to be schooled in proper habits of health.

Chapter Eighteen

Signposts

To some extent the disclosure of abuses suggests their remedy. It indicates the broad outlines of reform. The details remain to be considered. But these details require at least the space of another book. In this chapter I will merely confine myself to the broadest summary of society's needs. I will correct, too, any misconceptions which may arise from study of the previous chapters.

I have urged the need for more pleasure, rest and relaxation. I have pleaded that mankind be freed from the bane of insecurity. I have argued that man should be allowed to acquire the art of living and should be freed from the shackles of organised religion and self-delusion. I have, in fact, claimed that to make real the aspirations of civilisation is the prime necessity for health.

But to be civilised in a jungle is a biological mistake. The doctrine I am preaching would be disastrous in a world with eighty million Germans capable of resuming at any moment their main vocation of barbarity. Just as conditions encouraging the greater health of the community must be obtained by political action, their very inception depends on the grave political necessity of a proper peace. Such a peace should be a suitable prelude to the biological reconstruction of the world. Its terms should be based primarily on the major traits of German psychology. We are dealing with a people retarded emotionally. Their pathways of discharge are restricted. Their activities are at the thalamic level. Their higher centres are more than adequate for sheer intellect and superb technique. They have not acquired securely the pathways of self-control and judgment. I hope sincerely and unemotionally that the brains of their super thugs be preserved for

pathological examination. This would be a primary war aim in a rational world.

I am quite undeterred by the sneers of those psychologists who see in Germanism the arrogance of a young nation which has maintained, for two thousand years, its typical pattern of reactions. This nation from every standpoint of humane biological evolution is to be regarded as offal. They may be curable, in the course of many generations, by moral precept backed ruthlessly by force, but in dealing with them we should remember that it is necessary for us to go back some hundred years in our methods of correction, since otherwise the whole world will be darkened for a thousand years.

I have referred frequently to ancient Greece. I have tried to assess fairly the achievements of this civilisation. I have not idolised it. I realise that to a large extent Greece was a state maintained on the labour of slaves. I regard this as a proper destiny for the German nation. When this war is over we must not, in our pursuit of the super-ideal, jeopardise the peace and security of the mass of men. Nature in part is cruel. It presents us with the spectacle of savage phenomena. We must amend the brutality of nature by crushing its brutal forms. These malformed mammals must be relegated to the category of sub-human man.

I regret that I see no prospect of truly rational therapy. Sterilisation is the most humane and efficacious method of dealing with thalamic man. Elsewhere I have argued against such methods being applied to neuropaths in general, but in dealing with the latter we should not be governed by the principles of the separate categories of medicine, ethics and religion. In dealing with neuropathy we should decide what is socially tolerable. The Germans are not, despite the admiration afforded them by sections of the industrial and financial aristocracy of Britain.

I realise fully that there are good Germans. They are afflicted with a peculiar brand of humility in that, when wars begin, they are so seldom in evidence. It is to be deplored that they, too, should suffer for the sins of the

majority. We must accept this as we do the fact that plague, typhus, famine, even war itself, remove so many whom the world can hardly spare.

I have referred frequently to the biological planning of existence. I do not desire that life be ordered on cold, mechanistic lines. Man has a tendency to evolve. In this process he has acquired an intellect the findings of which he is unable to support. The lower animals know nothing of destiny. They do not realise that they must die. We know our days are numbered. We realise now that our conception of destiny has been pathetically acquired to edge our bleak horizons with a little gold. We are growing more rational. The counterfeit gold wears a little thin. We should realise that life is a gift, in itself neither good nor bad. It is our upward tendency which demands that it be good.

Man has never accepted the responsibility for shaping the pattern of his life. He has relied on directing influences from without, on God, on fate, on crude conceptions of the life force. He has therefore crucified himself, and others, for hypotheses. He has wasted his days in frustrated searchings after truth. He has lived in this teeming world which at least gives him as well as pain and humiliation the cool tapers of lilac in spring and all the gold of autumn. He asks for realities, with the sun on his face and his feet on the fecund earth. Yet surely joy and sorrow fulfil as near as need be the definition of realities. Each in its hour possesses us utterly. Each, too, has the implications of destiny, seeing that joy is something we desire should stay with us always and that sorrow is something we would, if we could, avoid. It is therefore reasonable that in our short sojourn we should contrive as much happiness for all as is in our power. Religion has never done this. It has decried this life in relation to the world to come. It has preached the morbid joys of negation, the nauseating doctrine of joy in pain. It has belittled the sensuous pleasures which, to the vast majority, are the principle sources of joy. Philosophy has little to offer. It appeals

to so few, except the philosophers of man's subservience to the state which reduces him again to the animal level.

Man has always accepted the external direction of his life. It must come from within. He must amend life to his needs. He must impart to it a new meaning. He must regard it as a source of happiness. He must estimate its hours and years as the raw material of the supreme art, the gift of happy living. For each man life will acquire different shades of meaning. We believe according to our endowments. But for the honest man the mainspring of human endeavour is always such as this. "I desire only the gift of happiness. I desire it for myself and others."

Such happiness will only be afforded man if he be enabled to rest more in his sensuous pleasures and to find satisfaction in his minor aims. To do this he needs security. This is denied him. The foundation and the ills of society are rooted equally in assertion and acquisition, and these, posing to superficial observation as evidences of security, are both signs of insecurity and crude attempts at its treatment.

World reconstruction will depend most of all on the relative deletion of self-assertion and acquisition from society. How will this be achieved? By education? This is far too slow. Bitter experience has taught us that the 'inevitability of gradualness' can only be practised in a world where all men have attained an equal degree of civilisation. The pattern of society must be ordained by law to curb men's impulses to acquire excessively or to assert their sense of power. I am no communist or even socialist. I argue this from no political standpoint but because I have learnt that in self-assertion and acquisition are the roots of sickness.

The direction of society is in the hands of those most infected with the plague of insecurity. This explains why our legal and moral code supports and encourages the morbid practice of bolstering morale by making holy the products of assertion and acquisition. Our conception of crime chiefly reflects our sense of property.

The world will never be ordered sanely until its leaders

by their acquisitiveness and self-assertion have brought this present impasse. But most of all the order of the future must allow man more rest in those sensuous outlets which now he experiences too little. We are thwarted with false conceptions of life forced on us by the prevailing neurosis of the social order. We are surrounded by sun and air and beauty. Sun and air strengthen us for pointless labours. Beauty is something we buy as a reward as a child buys sweets. We have mauled the blessings of life till they are no more than means to an end or pointless symbols. We do not afford the beauty of existence the proper reverence of our full surrender. We have distorted life and now it maims us.

But most of all we, as doctors, must insist on playing a major part in the cure of a sick world. Men have been slaves of ideas. These ideas were often the products of minds with little knowledge of men. The modern barbaric alternatives are manufactured by sick souls for whom the ruthless manipulation of men is the only sedative. Life in the future must be adjusted not to ideas about men but to the nature of man and his primitive needs. The men of the world, that strange coterie devoted to the maintenance of their own small world at the expense of other people's, will argue that government by experts is an anathema to men of sense. The only experts they have known are academicians. We are the students of man and to us his destiny should be trusted. The priests and politicians have been given a two thousand year period of bloody experiment. Our art is founded on pity and realism. We ought to do better than the abstract theorists.

and tolerance it contains. It is dying of fear and bigotry, chiefly of fear, since bigotry is, after all, no more than the Sunday dress of terror. As men we dread much. Most of all we fear freedom. What does freedom imply? The laughably ingenuous politicians tell us that it means the right to worship God as one wishes, to think as we like, to say what we will. We would not be without these excellent superficialities. In England we are not concerned overmuch with the worship of God, except when we are threatened with the loss of what we have never desired. We do not think much. After all, to be gentlemen is our first ambition. We have always said what we pleased. No one will stop us. The relative merits of Hobbs and Sutcliffe have no political significance. Our social structure is built on the tatters of outworn beliefs. Some are for God, some for the state, some for particular cults in politics. None are for man. We are still ill-clad in the faded rags of theology. We make ourselves gaudy with political ribbons or the bright apparel of the new barbarisms. Whether we live in democracies or under dictatorships we glue ourselves equally to labels. We cannot face the idea that life is purposeless unless we each impart to it our individual meaning.

People find it difficult to believe that Nazi youth could parade the streets shouting, "We spit on freedom." This exemplifies not so much the madness as the cowardice of man. Men hate freedom because it is a too-responsible state. It involves thought. The first paths in thought traverse the horrors of emptiness. We know not whence we come or where we go. Our courage fails. It is easier to turn back, leaning on God or Hitler. We have gone too far. Behind us is self-delusion, ahead the unexplored ocean of our plunge to freedom. We hesitate. Our souls are divided. We exist in conflict. Thus we are sick.

It will be said that man in freedom will require laws and restrictions, that the social system of the future will need to be organised as much as this is. I agree. He will need laws, ruthless laws, to curb the diseased and decadent natures who

by their acquisitiveness and self-assertion have brought this present impasse. But most of all the order of the future must allow man more rest in those sensuous outlets which now he experiences too little. We are thwarted with false conceptions of life forced on us by the prevailing neurosis of the social order. We are surrounded by sun and air and beauty. Sun and air strengthen us for pointless labours. Beauty is something we buy as a reward as a child buys sweets. We have mauled the blessings of life till they are no more than means to an end or pointless symbols. We do not afford the beauty of existence the proper reverence of our full surrender. We have distorted life and now it maims us.

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