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Towards
PEACE OF MIND

Edited by Professor Cyril Burt

HOW THE MIND WORKS

BY PROFESSOR CYRIL BURT, DR. WILLIAM MOODIE,

DR. EMANUEL MILLER AND DR. ERNEST JONES

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TOWARDS PEACE OF MIND

*EVERYDAY PROBLEMS
OF MENTAL HEALTH*

by

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LONDON
GEORGE ALLEN & UNWIN LTD
MUSEUM STREET

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FIRST PUBLISHED IN GREAT BRITAIN IN 1936

PRINTED IN GREAT BRITAIN BY
KIMBLE & BRADFORD, LONDON, W.1

PREFACE

IT is frequently said that mental disease causes far more inefficiency and unhappiness than physical. Whether this is true of more serious disorders may perhaps be questioned. If, however, we leave disease as such to the doctor and think only of those minor troubles for which we seldom seek outside advice, then there can be little doubt that petty mental disturbances are continually throwing our daily work out of gear and threatening to make our lives a misery both to ourselves and to those around us. Lack of judgment, loss of memory, an inability to concentrate, a failure of the will, anxieties, prejudices, disappointed whims, moods of depression with no discoverable cause, trivial sins and vices practised because we know no other solace or distraction, these ruin many a home and many a career, and, in some degree at least, attack each one of us in turn.

Loss of physical fitness is common enough; loss of mental fitness is all but universal. It would not be hard to find a man whose body is as sound as a bell; but to point to one whose

character is without a flaw, whose intellect is always at the top of its form, would be well nigh impossible.

Yet it is mainly on physical fitness that we are content to insist. Its importance is nowadays everywhere acknowledged. In our elementary schools we instruct children in the essentials of bodily hygiene. In our public schools and universities the regular code demands that every member shall give some portion of his time to games, to sport, to outdoor recreation. Our daily papers are full of advice on diet, exercise, sleep, and the best regimen for everyday life. But the mental side is almost wholly ignored.

Here and there, it is true, an institute will advertise a course that claims to improve the feeble memory or strengthen the failing will. But that is rather like telling a man who complains of weak health, but does not know the cause, that all he has to do is to flourish dumbbells for half an hour every morning before breakfast.

The notion that the mind can be trained by exercise and that the sole task of the psychologist is to prescribe a suitable regime is one of the commonest fallacies. The principles of mental hygiene are far more intricate than that; and it requires not only a wide knowledge of mental

science, but an unusual gift of clear and simple expression to explain these principles to a lay public which is far more ignorant of the elements of psychology than it is of physiology and medicine.

This, however, is the task which Dr. Bowman has undertaken in his book. His object is to set out the established facts of human nature in such a way that the average man (or woman) may understand himself more clearly, and be able to deal in a healthier manner with the personal problems that confront each one of us.

Dr. Bowman himself is an assistant professor in the Medical School at Harvard University and Chief Medical Officer at one of the most famous psychopathic hospitals in the world. He has thus acquired a rich practical experience and an ability to put that experience into words; and both alike are necessary for a successful attack on so new and difficult a subject. In this country it is generally conceded that, on such points as these, American psychiatry is at the moment ahead of English. But what is most admirable in Dr. Bowman's volume is the way in which he refuses to nail his faith to any single theory or doctrine, and endeavours to combine the soundest elements in all the divergent schools of psychological thought.

He has thus managed to cover almost every aspect of mental life. He gives due weight to hereditary and to physical factors as well as to social and environmental. He accepts the essential findings of the psycho-analysts, but succeeds in putting their conclusions into a wider context. Having dealt with these more fundamental conditions, he then goes on to discuss the problems of child training during the pre-school, the scholastic, and the adolescent period, and so passes to the more baffling questions of civilized life that all of us have to face. Industrial efficiency, domestic happiness, choice of occupation, mental fatigue, marriage, and sex, the use of mental stimulants and sedatives such as alcohol and tobacco, all these topics are taken up in turn; and a brief chapter is appended on moral and religious life. Ambitious as his programme is, nevertheless it is fulfilled in a sane and scientific spirit. At the same time the book is no mere collection of platitudes and hackneyed maxims, much less an attempt to popularize the latest professional craze, but an illuminating and practical guide to the search for mental health.

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Towards
PEACE OF MIND

INTRODUCTION

THE contents of this book represent essentially the material given in a series of lectures a year ago under one of the Massachusetts University Extension Courses.

The purpose of these lectures was to give some of the essential facts and general principles which would enable the average individual to understand himself and to deal in a more healthy manner with his own personal problems. The lectures were intended for the average educated individual, who had no special knowledge or training in these matters.

Although the title "Personal Problems of Men and Women" was given to this course of lectures, more time was spent discussing the general principles involved than in dealing with specific problems. The idea has been to present general principles with enough illustrations of specific cases to make it clear. The reason for this is that when given in books, specific directions for dealing with given situations are notoriously unsatisfactory. What works in one case does not work in another. This represents one of

the difficulties in dealing with any formal presentation of mental hygiene. In order to advise an individual as to exactly what he should do in a given situation, it is necessary to know something of the individual's past life and of his personality, as well as the details of the immediate situation. It would require an entire book to deal adequately with a single case. Under such conditions, it is obvious that one seldom gives exactly the same advice to different individuals even when the situation confronting them appears to be the same.

The book contains nothing new or startling. I have simply tried to present what seems to me the best of modern thought on the points under discussion. There is a great deal of controversy concerning most of these points. In a single book there is no opportunity to present all the different views and arguments of each school of thought. Accordingly, I have merely presented those points which seem to me of most importance and interest.

If the book can be said to represent any special viewpoint, it may be said to represent that of modern psychiatry. It is correct, however, to say that psychiatry is not a unit in its views, and that modern psychiatry has many divergent trends. However, it does seem that modern

psychiatry has emphasized most of the points which are expressed in this book. Like other sciences, psychiatry is in a state of flux, its fundamental concepts are not settled. There is a great deal of difference of opinion as to the importance of personality and of various psychological and physiological factors in determining behavior. In general, it may be said that the importance of all of these factors is accepted. As has been said before, every particular thing that happens is the result of the concatenation of everything that has gone before; so strictly everything which has gone before has a causal relationship to everything that follows, and everything in the universe has a relationship to everything else. Yet some of these relationships seem to us more vital than others, some interest us more so that we pursue them, disregarding other relationships, even while admitting their importance. So Freud, for example, has often admitted the great importance of constitutional factors, but he has stated that he lacks interest in these constitutional factors, and hence has not studied them further, a fact of which many Freudians appear to be unaware judging by the neglect of these factors in their writings. Freud has emphasized his interest in certain psychological mechanisms and has pursued these to the

neglect of other important factors. The opposite point of view is sometimes seen in other groups who emphasize the constitutional factors and see all behavior as the result of the constitutional makeup of the individual, a sort of doctrine of predestination which makes environment, education and training of no importance. In the present volume, I have insisted that we must take cognizance of all of these factors, and that their importance varies in each individual case. It is quite possible by picking examples to present a very plausible case for any of the prevalent theories. The only difficulty is that after we have read all the viewpoints of the different schools, we may feel that they are all right and yet all wrong. When an individual starts out with a particular theory, he is very likely to become somewhat partisan in his viewpoint and "wish-fulfillment" thinking is likely to occur, in which he sees things the way he would like them to be. Therefore, he sees little of importance in the theories of others and is able to neglect cases which do not seem to prove his own theory.

Since there is so much of value in many of the current theories of human behavior, I have tried to give some degree of credit to each one of them for its contributions. In doing so I have, of course, used my own judgment as to what is of

value. Many will disagree with me and feel that I have not given sufficient credit to certain views while I have overemphasized the value of others. To such individuals I freely grant the right to form their own opinion as to what is to be accepted and rejected, merely demanding the same right for myself and presenting this book as representing my own individual views which the reader is quite at liberty to accept or discard.

I have started out with the discussion of the constitutional factors and the relation of heredity to behavior, as that seemed to me the logical place to begin. Following this I have discussed the physical factors in behavior, how structure determines and limits behavior, how physical disease and physiological changes influence personality and behavior. Next there has been a discussion of the psychological factors. After this there has been a more specific discussion of problems. Since so much maladjustment in adult life reverts back to faulty mental hygiene during childhood, one chapter has been devoted to mental hygiene of childhood and a second chapter to mental hygiene of adolescence. Following this there has been a discussion of more specific problems. Those which are discussed are ones which have appeared to me as being of particular importance. The discussion of such problems

has been quite incomplete, as obviously such topics as sex or alcohol might require several volumes for complete discussion.

The attempt has been to present certain points of interest which appeal to me as being valuable to the average reader.

I wish to express my appreciation to my many friends who have aided with advice and criticism. Particularly am I indebted to Dr. Frederick Lyman Wells for many helpful suggestions, to Dr. Paul Popenoe for criticism of the first chapter, to Eliza Stearns Bowman for many improvements in diction and to Dr. C. Macfie Campbell and the staff of the Boston Psychopathic Hospital for valuable assistance and advice.

CHAPTER I

INHERITED FACTORS IN HUMAN BEHAVIOR

IN making a study of human behavior and attempting to find the causes back of it, the importance of constitutional factors is at once apparent. The term constitutional factors is used to denote factors inherent within the organism, the qualities or capacities with which we are born. This does not mean that environment is disregarded, for there is no tendency whatever to deny the importance of environmental factors. There is no more fruitless discussion than the argument as to which is the more important, heredity or environment. It is not a question of either—or; it is a question always of how much a particular reaction is determined by constitutional inherited factors, and how much by environmental factors. Both factors enter into every reaction of the organism. In certain conditions, the constitutional factors are the more important; never is there any question but that both factors enter into it. There is a little for-

mula to this effect: Personality + environment = behavior; that is to say, to understand behavior two things must be taken into consideration; first the personality, makeup or constitutional qualities of the individual, and second, the environment to which he is reacting.

Now man is a very complex and constantly changing organism, living in a very complex and constantly changing environment, and any study of human behavior is obviously a very difficult and intricate problem. To simplify the discussion, a study of the constitutional factors in behavior will be made first. To what extent and in what particular ways does constitutional makeup determine or limit behavior? And then, from the standpoint of mental hygiene, what can be done about it?

In a broad way it can be said that man's constitution or initial personality is inherited from his ancestors, and that, although he starts with a certain innate endowment, this personality is constantly being modified by environment, so that in later life it is very difficult to say how much of a man's personality is intrinsic, and how much the result of extrinsic factors.

The physical and mental makeup of a child immediately after birth is not, solely the result of hereditary factors. Environment has had an

important influence during the nine months of intra-uterine existence prior to birth. Actual physical disease or injury may occur at this time and may result in the production of a weak, diseased or feeble-minded child. Many of the most severe cases of feeble-mindedness are produced in this manner, with heredity playing no appreciable part in their genesis. If environment can produce such extreme results, it can obviously produce a great many minor changes, so that already, at the time of birth, the child shows the results of environment upon his inherited traits.

It is obvious that if man's personality is something which he inherits from his ancestors and is an important factor in determining his behavior, it is of practical value for everyone to know something about what these inherited qualities are, and how they tend to be inherited. Popenoe says: "It is not far wrong to say that the fundamental resemblances among men go back to the germ plasm of the ancestry which all share alike; the differences among men are mostly due to the germ plasm of the more recent ancestry, which no two share alike." In other words, the inherited traits which make men alike are traits which are transmitted from their more remote ancestors and are very much

the common heritage of the entire race. Those qualities which give each one his own personality or individuality, and stamp him as being different from his neighbors, are qualities inherited largely from his more recent ancestors. Again, as Popenoe puts it: "The child does not inherit any definite *thing*; he inherits merely a *potentiality* of developing *to a certain degree* under normal conditions. He can never exceed the limits of this potentiality, but he may, and often does, fall short of them; he does not get the most out of his heredity because the conditions are not favorable to the development of his possibilities. This is fortunate if the possibility is an injurious one, unfortunate if the possibility is a useful or desirable one. The whole of education consists merely in trying to make conditions as favorable as possible for the good potentialities and as unfavorable as possible for the bad ones — 'goodness' and 'badness' being determined by the needs of civilization."

Thus an individual who is limited by his constitutional endowment cannot develop beyond a certain degree, no matter how favorable the environment. The person afflicted with an inherited type of feeble-mindedness can never become a highly intelligent being in spite of the best of educational opportunities. He can, however, be

educated and trained to use his limited mental capacities to the maximum. Environment may, therefore, determine whether his capacities remain latent and undeveloped or whether they will increase and become more active.

The child inherits the body and mind of his ancestors. Strictly speaking, the distinction between mind and body is an artificial one. For practical purposes it is desirable to make this difference in the following discussion but it should be kept clearly in mind that both mind and body are merely partial aspects of the total organism.

There seems to be little question as to the inheritance of physical characteristics. Certain traits such as the general type of body build, the color of the hair and the color of the eyes can be easily shown to be inherited. If both parents have blue eyes, the child usually has blue eyes. Baldness is frequently inherited. Lefthandedness is less clearly inherited.

While a person born with a healthy body may develop a great number of diseases as a result of environmental factors, yet even in such cases the constitutional factor cannot be disregarded. A susceptibility or lack of resistance to certain diseases may be inherited, although the disease itself must be acquired. Thus, tuberculosis is no

longer regarded as inherited, although an inability to resist infection by the organism of tuberculosis is certainly inherited in some cases. Tuberculosis, therefore, is an acquired disease in which both heredity and environment play a part. Every individual at some time during his life is exposed to tuberculosis. Evidence of infection by tuberculosis has been demonstrated in practically all cases where a complete post-mortem examination has been made. One reason why everyone does not die of tuberculosis is the inherited resistance to the disease. The amount of inherited resistance varies with the race. Thus, in America, the Negro has less resistance to tuberculosis than the white.

It is also true that certain diseases are inherited and are not the result of environmental forces. Two excellent illustrations are hemophilia and Huntington's chorea. Hemophilia is a condition in which the blood does not coagulate properly, so that the individual tends to bleed to death from a comparatively trivial cut. Such persons are often called "bleeders." The disease occurs only in males and is transmitted through the mother. Huntington's chorea is a disease which usually comes on after forty and is characterized by a gradually increasing tremor and progressive intellectual deterioration. It

runs in families and has been traced through several generations.

Certain types of feeble-mindedness are inherited, and although there is considerable controversy as to the proportion and whether certain types are inherited, it is generally agreed that at least 50 per cent of feeble-mindedness is due to feeble-minded ancestors transmitting their defects to their offspring.

There is no universally accepted viewpoint concerning the rôle of heredity in the production of mental disease. It is probable that only a small percentage of mental disease is the result of heredity alone. Many mental diseases are the expression of some underlying physical disorder and the immediate cause is obviously this physical disease. However, as has been shown, there is often a constitutional factor in physical disease. Hence, one must admit the possibility of a hereditary factor even in such cases. It is with regard to the so-called functional type of mental disorder that there is most controversy. This group includes the psychoneuroses, manic-depressive psychoses, and schizophrenia. Most psychiatrists agree that there is a hereditary factor in the production of these disorders. The present state of knowledge justifies saying that a predisposition to these disorders is inherited, but

that environment may determine whether the disorder actually develops or remains latent. In some cases, the predisposition may be so strong that the disorder develops in spite of an ideal type of environment. In other cases, the predisposition is so slight that the disorder only develops in an extremely unfavorable environment. Hysteria is an example of this. Many persons develop hysteria where there is very little stress and strain in the environment. Such cases are due mainly to an inherent defect of the personality. On the other hand, when hysteria develops as a result of extreme stress and strain, constitutional factors have had very little to do with causing it. During the war, cases of hysteria were observed in men after they had been in the front line trenches for several years. In such instances it is obvious that environment has been the main cause of the disorder.

The problem of the inheritance of mental traits is both difficult and complicated. Most mental traits are so susceptible to modification by environment, that it is difficult to prove the presence of an innate mental trait in both the parent and the child.

Consider emotional instability in this manner. A father and son both have ungovernable tempers. Is the son's condition inherited or ac-

quired? Those who emphasize the importance of environment will point out that the son's temper tantrums may be the result of imitation of his father or due to the upsetting effect of an irritable parent. And it is undoubtedly true that poor heredity is frequently associated with a poor environment, so that it is difficult if not impossible to disentangle these two factors.

Intelligence, understood to be what is measured by so-called intelligence tests, represents a trait which is nearly comparable to physical traits like blue eyes. The individual who comes from a family stock of high intelligence tends to be of high intelligence and the individual who comes from a family stock of low intelligence tends to be of low intelligence. The numerous exceptions to this rule and the fact that many individuals of high intelligence and many individuals who are feeble-minded come from a family stock which seems of average capacity indicate that the whole problem is more complicated than the simple inheritance of a resemblance to parents. The reason for this will be made clear a little later.

Perhaps the most interesting studies in heredity are those concerning single ovum twins. Ordinary siblings have a quite different congenital endowment as the arrangements of chromo-

somes and genes in the egg and sperm cells are never exactly the same, or more correctly, there is only one chance in 16,777,216 of their being identical. This means that ordinary brothers or sisters would have the same heredity once in 16,777,216 times.

In the case of all single ovum twins there is absolute identical congenital endowment so that all differences are to be attributed to environmental factors. These environmental factors may produce marked effects even before birth, in fact, may even produce the death of one twin so that only one is born alive. In most cases, however, the uterine environment produces but little change, so that at birth single ovum twins show such complete resemblance to each other that they can be told apart only with difficulty. One point of difference often present, however, is that one twin is right-handed and the other is left-handed.

Careful studies of single ovum twins show a remarkable identity in both physical and mental traits. Such qualities as color of hair and eyes, shape of skull, general body build, arrangements of lines on palms of hands and soles of feet, etc., have been demonstrated to correspond exactly. There has even been demonstrated an extraordinary tendency to develop the same physical dis-

cases, a much greater tendency than that shown by brothers and sisters or ordinary twins. Mentally this same resemblance also occurs. Single ovum twins have very similar intellectual capacities even when growing up apart. There is also close resemblance in temperament, although temperament appears to be rather more modified by environment than does intelligence. In approaching the problem of mental disease, it is of interest that a number of twins have been reported where both have developed schizophrenia even when living apart. It is of extreme significance that no case has ever yet been reported where only one of a pair of single ovum twins has developed schizophrenia.

Such evidence as this clearly demonstrates the enormous importance of heredity and the tremendous influence it plays on the physical and mental development of the individual.

If a child inherits his mind and body from his ancestors why do children often differ so markedly from their parents in mental and physical traits? The method by which traits are inherited is reasonably well understood and although fairly complicated can be presented in sufficient detail to make clear the principles involved.

The new individual is formed by the union of the female (egg) cell and the male (sperm)

cell. Each cell is composed of a mass of jelly-like substance known as cytoplasm, in the center of which is the nucleus. The nucleus contains a large number of particles grouped together which are known as chromosomes. The chromosomes in turn are made up of the genes which are to be thought of as the determiners of the physical and mental makeup. When the sperm and egg cells unite, the new cell which is formed receives two sets of genes, one from the father and one from the mother. These genes are arranged in paired chains, one chain being derived from the father and one from the mother so that one member of each pair is derived from the father and the other from the mother. The function of the two members of each pair of genes is identical. Not only that, but each pair of genes has a specific function to perform and has a settled position in the chains which the genes form. Although each member of a pair of genes has the same function to perform it may tend to perform it in a different fashion. If one gene is defective and the other normal, the normal gene as a usual rule will perform the function satisfactorily for the organism. This will mean, however, that the individual, although apparently normal, carries in his genes certain defects which he may transmit to his

offspring. This explains the apparent riddle of why individuals, who appear to be normal, may transmit defects to their offspring.

For example, assume a certain undesirable trait is due to a defect of a single gene. If the father has both of these genes defective he is, himself, defective and tends to transmit the trait. If the mother also has both of these genes defective, we have the marriage of two defective individuals who will tend to have all of their children defective.

A second possibility would be that the father has both genes defective and is defective; the mother may have one defective gene and is usually normal. She tends, however, to transmit the defect to some of her offspring. The result of such a marriage will be that some of the children will be defective and tend to transmit the trait from having inherited a defective gene from each ancestor, whereas other children may have inherited a normal gene from the mother and a defective one from the father and be normal, although tending to transmit the defect to some of their offspring.

A third possibility is that both parents have one defective and one normal gene. They are both normal but tend to transmit their traits as follows: One child will receive two defective

genes and be defective. Two will receive one defective gene and one normal gene and will be normal but tend to transmit the defect. One child will receive two normal genes and will be normal and will not transmit the defect. Further combinations of genes might be given but this gives the general idea of how such qualities are transmitted.

It is also important to realize that of a number of individuals who have inherited a certain defect from their parents, the majority have received it from parents who, themselves, did not manifest this defect but merely transmitted the trait through defective genes which they had received from their ancestors. This presents one of the most important problems of eugenics. It is evident from what has been shown that merely preventing the reproduction of defective individuals will not be a complete solution to the problem. It is necessary to find some method of discovering those who, though normal themselves, are carriers of the defect. At present no method of doing this is known. This does not mean that the prevention of reproduction among defectives is of no value. It means that such a method only partially cuts off the flow of defective individuals who are constantly being born.

The following quotation from Jennings seems a reasonable summary of the situation. "The problem of eugenics is presented by the existence and action of defective genes, inefficient genes, inferior genes. Seriously defective genes result in the production of individuals that are imperfect: feeble-minded individuals, persons who early become insane, deaf, blind; persons whose blood refuses to coagulate; persons who are weak and short-lived, or that are extremely susceptible to tuberculosis or other infections. Genes that are relatively inefficient produce individuals that are dull, inconstant, lacking in self-control, lacking in initiative; and so on through the long list of undesirable qualities that are found in man. More efficient genes produce the individuals that we call superior . . . the number of grades, the number of types, of diversity in characteristics produced by differences among the genes is practically infinite. The diverse types of genes are combined in an infinity of different ways, in different individuals, giving rise to the very great differences in native endowment observed among human beings. Many of the differences so produced are not fittingly characterized as matters of superiority or inferiority, but rather as diversities in tastes, mentality, aptitudes and character; those diversities

which supply workers for the different tasks of the world, and which make of humanity a varied pageant. But others are clearly matters of defectiveness, or of decrease of efficiency; such are feeble-mindedness, insanity, blindness and the like; such are stupidity, and in general all decreased power of adjustment to the conditions.

“Eugenics desires to prevent the occurrence of individuals manifesting the effects of defective genes, inferior genes, and to replace these with individuals having better gene combinations.”

To what extent and by what methods can these desires of eugenics be realized? If the human race is to improve there should be as many children as possible from ancestors of desirable stock and as few as possible from ancestors of undesirable stock. It has been estimated that an average of four children per family is necessary if there is to be any increase in our population. Therefore, laws and customs should be designed to enable our best stock to marry early and support large families. Unfortunately the present scheme of things appears to be designed to produce exactly the opposite effect. The intelligent ambitious youth, unless wealthy, finds that he must postpone marriage if he is to secure the requisite education and training to attain a high

place in his profession. Likewise, he usually thinks it necessary to limit the size of his family. If he is conscientious and has high ideals, he will object to having more children than he can provide for adequately.

Some limitation of the marriage and reproduction of undesirable stock should be imposed both by law and by public opinion. A number of practical difficulties are at once encountered. Is it possible to determine when a person should not be allowed to become a parent and if so how? One must confess that the science of eugenics is still in a somewhat nebulous state and there is a great deal that is unknown with regard to human heredity. Nevertheless, sufficient is known to permit a few definite rules. Undoubtedly prevention of reproduction by defectives should progress slowly. It is better to err on the side of conservatism in such matters.

If certain persons should not produce offspring, the question at once arises, how shall it be prevented? Will more strict laws with regard to marriage be adequate? Obviously not. Such laws may be desirable but further measures are necessary.

Fortunately there is in sterilization a most potent and valuable weapon for dealing with this problem. Sterilization is an extremely

simple operation in the male, can be done in the doctor's office under local anaesthesia and leaves no unpleasant or harmful effects. The sex life itself remains unaffected. The desire and ability to have and enjoy sex relations is unchanged. The only difference is that children will not be produced by such unions. The same is true with regard to the female, except that the operation is relatively more serious and requires the opening of the abdominal cavity in order to remove the Fallopian tubes.

Many states have compulsory sterilization laws. Such laws have been attacked on legal, religious and moral grounds.

The legal question has been settled once and for all by the decision of the Supreme Court of the United States. In 1927, the constitutionality of properly drawn sterilization laws was confirmed. In upholding the right of the state of Virginia to sterilize one Carrie Buck, "a feeble-minded inmate of a state institution, the daughter of a feeble-minded mother and herself the mother of an illegitimate feeble-minded child," the following quotation from the opinion presented by Mr. Justice Holmes is worth quoting. "We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call

upon those who already sap the strength of the state for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes. *Jacobsen vs. Massachusetts*, 197 U.S. 11, 49 L. ed. 643, 25 Sup. Ct. Rep. 358, 3 Ann. Cas. 765. Three generations of imbeciles are enough."

Voluntary sterilization raises no particular problems. Any properly qualified physician may sterilize any person desiring it if he considers there are adequate medical reasons for such an operation. (The reproduction of defective or diseased offspring is clearly a medical reason.)

Religious objections to sterilization can hardly be discussed in detail. Suffice it to say that there has been no official pronouncement on the subject by the more important Christian sects. The Roman Catholic view has been presented by Dr. Joseph Mayer, a Roman Catholic priest on the faculty of the Institute for Social Work at the University of Freiburg. An excellent review of

his book, "Gesetzliche Unfruchtbarmachung Geisteskranker" (The Legal Sterilization of the Mentally Diseased), by Paul Popenoe, appeared in the *Journal of Social Hygiene*, Vol. XIV, No. 3, March 1928. It appears from this that religious views are not necessarily in conflict with sterilization.*

The claim has been made that sterilization increases sex immorality and the spread of venereal disease. While there are certain individual instances supporting such a view, it seems that a proper application of sterilization, together with the use of segregation in selected cases, will have exactly the opposite effect. The American Association for the Study of the Feeble-minded took this view at the May 1930 meeting when it endorsed "selective sterilization" as a part of the program for the control of the feeble-minded.

Can it be determined that a person will have normal children, assuming that no accident or other environmental factor enters into the situation? It must be admitted at once that there is no absolute way of determining this. Defects and disease may be the result of a single defective gene or of a combination of defective genes

* Since this was written, Pope Pius XI published his encyclical letter, "On Christian Marriage," in which he condemns eugenic sterilization. Hence the Roman Catholic Church is now definitely opposed to sterilization on eugenic grounds.

which may not be present in either parent but result from the manner in which the two sets of genes unite. Until more is known concerning hidden carriers of defects, it is impossible to say whether or not an apparently normal individual is carrying defects in his genes which may be transmitted to his offspring. It is, however, a fact that certain individuals are less likely to have defective offspring than others; and, while one cannot state what may happen in individual cases, statistically it can be said that one thousand or ten thousand individuals with certain characteristics and certain histories will tend to have more normal offspring and fewer defective offspring than will a similar number of individuals with different characteristics and a different type of history. Present-day knowledge of eugenics and heredity permits the statement that the most desirable type of parent is the person who has a family history in which the individuals have all been of good intelligence and normal personality, who have lived to a ripe old age and have shown a good resistance to the ordinary infectious and constitutional diseases. Complete absence of mental disease or feeble-mindedness is desirable. The individual, himself, should be strong and healthy with a good resistance to infections and should be of high in-

telligence and of normal mentality otherwise. Such a person is the best possible eugenic risk.

The question is often asked: Should relatives marry? The marriage of relatives means an increase of the same type of genes, hence a tendency to exaggerate and bring out any familial traits, some of which may have remained latent. If the family stock were ideal (which of course never occurs) marriage of relatives could have no possible harmful effects. Undoubtedly, marriage of close relatives has a tendency to uncover masked traits which are present in the genes but which do not appear in the individuals themselves. For this reason marriage of close relatives produces defective offspring more often than does the marriage of more distant relatives or unrelated persons.

Can it be definitely stated that certain individuals should not have children? There are, of course, other factors to be taken into consideration besides heredity. For example, the effect of pregnancy on a woman may be so undesirable as to be a contra-indication to her having children although eugenically she may be a reasonably satisfactory specimen. The presence of any serious disease in a woman means that for the time being she should not have children but does not exclude the possibility of her having them later

on. Tuberculosis and syphilis may be cited as illustrations. While these diseases are active no woman should become pregnant. Assuming them to be cured (which is not easy to determine), what attitude should be taken? Pregnancy may light up an arrested case of tuberculosis and have a very harmful effect upon the mother. A mother with active tuberculosis should not nurse her own child and should not look after it as the dangers of infecting the child are quite serious. There is the possibility that her child will not be properly nourished in utero and that it may at some time contract the disease from the mother. For this reason, it is difficult to lay down any general rule and all that can be done is to insist that a woman be certain that she is cured of such diseases before she becomes pregnant. The whole matter obviously requires consultation with an experienced physician.

If individuals tend to inherit defective resistance to certain diseases, can one insist that an individual who has a certain disorder or has a family history of a certain disorder should not marry and have children? All that can be said is that individuals who are themselves healthy and whose family history indicates strong resistance to such diseases as tuberculosis are likely to transmit a higher degree of resistance to these

diseases than will the individuals who are either infected with tuberculosis or have a marked family history of the disease.

The presence of a definitely inherited type of a serious disease such as hemophilia or Huntington's chorea is to be regarded as a definite reason for not having children. Any possible loss to the human race through preventing the birth of desirable stock, or even of some possible genius, will be more than offset by freeing the human race of such diseases.

The same may be said of the presence of feeble-mindedness of the inherited type. Here there will be considerable controversy. What types of feeble-mindedness are inherited? What criteria are to determine that a given person is feeble-minded? In the light of present knowledge it may be said that society should be extremely conservative about *forcing* sterilization in such cases. It may be pointed out, however, that borderline and doubtful cases are not likely to be particularly competent parents nor are they likely to provide the environment in which a child would have the best chances of developing.

Another reason is the presence of definite mental disease. It is important to realize that the term mental disease is a very broad one, cover-

ing a large number of conditions both severe and mild. It is not synonymous with the term insanity. Insanity is a legal term which denotes that an individual has a mental disorder of sufficient severity to warrant committing him to a hospital for mental diseases for treatment, or for declaring him incompetent and irresponsible. Mental diseases arise from a large number of causes; constitutional, physical and psychological. It is obvious that the importance of heredity will vary, depending on the type of mental disease. A person who develops a severe delirium during an attack of typhoid fever or pneumonia is not necessarily a poor risk from the eugenic standpoint. On the other hand it is doubtless true that in a great many cases the individual who develops such a delirium does so in virtue of a certain constitutional instability. Obviously an individual who has a definite mental disease should not marry and have children. If a person has recovered from an attack of mental disease marriage and parenthood may be considered. Here each case must be considered on its individual merits. What is the type of mental disease? How much evidence is there of heredity as shown by the family history? What are the person's physical and mental attributes? Is he otherwise such a eugenically desirable person

that his desirable qualities may offset the history of a mental breakdown? No person is a perfect specimen eugenically. He has both desirable and undesirable traits. In all cases these traits must be balanced against each other in order to render a final judgment. Unquestionably society would be better off if most persons who had had an attack of mental disease did not marry and reproduce themselves. If both parties have had an attack of mental disease, a reproductive marriage should not take place.

The question arises, what should be the attitude if there is a family history of mental disease? Here again it will depend on the type of mental disease and the number of cases occurring in the family history. A searching study of any family history will probably disclose some record of mental disease. The history of senile dementia occurring at the age of ninety in one of the grandparents would obviously be no contra-indication to marriage nor would the occurrence of mental disease due to a fractured skull. If on the other hand there is evidence of inheritable mental disease occurring in several generations this would be a strong contra-indication to marriage and reproduction. It is doubtful if two apparently normal persons, each with a well-marked family history of mental disease, should have children. It

is well to keep in mind that one of the important effects of poor heredity is the production of a poor environment for the children, and a great many individuals of unstable makeup will not fulfil the rôle of parent in a satisfactory manner. All of the foregoing is true with regard to cases of epilepsy and of unstable or psychopathic personality. There are undoubtedly exceptions to these rules, and a thorough consideration of all the factors is necessary.

In conclusion, it is well to repeat that the welfare of society demands that our best stock reproduce itself in larger numbers and that reproduction of undesirable stock should be diminished or cease.

Knowledge of the laws of heredity is such that society must proceed cautiously and conservatively at the present time, realizing that much concerning the transmission of many traits is not well understood, and appreciating that no person is a perfect specimen eugenically. The question of reproductive marriage must, therefore, be decided on the individual merits of each case.

CHAPTER II

PHYSICAL FACTORS IN HUMAN BEHAVIOR

IN discussing the physical factors in human behavior it is necessary to keep in mind the fact that the organism is a unit and that the distinction between mind and body is an artificial one, and in many respects, a very unsatisfactory one. For practical purposes, however, it may be desirable to discuss the physical constituents in human behavior, disregarding, for the time being, other elements. In the first place, we recognize that man is a living organism having a highly complex physical structure, but composed of the same elements which we find scattered throughout the earth. No one has proved exactly when life first occurred or how it came into existence on this planet, but it appears certain that life arose on the earth from non-living matter and was not brought in from outside.

Kirtley Mather, in discussing this problem, points out that life probably arose in the ground where the necessary relationship of water, air

and mineral matter could be found, rather than in the sea where there would be little tendency for chemical synthesis to take place and where matter tended to be diffused.

Living matter exists in the form of cells which are composed of protoplasm. Protoplasm has a complex chemical formula, but is composed of elements which are widely distributed. Matter may exist in the form of a colloid which is a jelly-like substance having many of the properties of protoplasm.

At the time life arose on the earth, the atmosphere was less dense and there were more radioactive substances in the earth itself. It is possible that a particular concentration of light, x-ray and other types of waves on some special bit of colloidal matter, together with the right amount of heat and moisture, may have resulted in the production of living protoplasm.

In the beginning, life existed in a very simple form, the unicellular organism; then many new types and varieties developed. The study of man shows that he has evolved from a lower type of organism and that this process of evolution has taken millions of years. Both the structure and behavior of man are intelligible only on such a hypothesis. As has been pointed out by numerous students of the subject, man possesses many

vestigial structures which have practically no function at the present time, but can be understood only on the theory that at one time they were well-developed organs with clearly defined functions; such organs as the vermiform appendix, which was doubtless "a large nutritive organ of great importance" at one time. Man also has a set of muscles originally arranged to move the ears, but now practically useless. There is evidence that in the process of evolution man has lost twelve teeth; at one time he possessed forty-four teeth instead of thirty-two as at present. Practically all biologists have agreed on these points.

The question is often raised, if man is the product of evolution, why do we not see evidence that man is undergoing further change, and why do we not see new types and varieties of organisms constantly developing? It is doubtless true that there has been no important anatomical change in man within the last four thousand years. It is also doubtful whether man's intellectual capacities are any greater at the present time than they were four thousand years ago. This does not mean that man is not evolving, because the process of evolution is so slow that it takes many thousand years for any important change to develop.

Certain interesting work with the x-ray may give us a clue to this problem. It has been shown experimentally that exposing the ova of an animal to the x-ray for a certain period of time will cause marked changes to occur in the young of that animal. This is one possible factor; another is the fact that when a species is young, it is capable of a great deal of change, whereas when it grows older it becomes more stable and less easily changed. Five hundred thousand years is probably a fair estimate for the life cycle of a mammal. The present race of mankind has been in existence only thirty thousand or forty thousand years according to the most reliable estimates, although there have been other races of human beings which have existed and then become extinct, probably hundreds of thousands of years ago. It would seem, therefore, that the present race of man is a young species, still in the plastic and changeable state and capable of considerable change. Exactly what these changes will be, cannot be determined.

Recently there has been some work by neurologists indicating that there will be further development of the frontal lobes of the brain with increasing mental capacities.

In discussing the physical factors affecting behavior, it may be stated that the structure of

the organism determines and limits its possibilities of behavior. An organism that has a very simple type of structure is capable only of simple types of reactions, whereas an organism which has a highly complex and complicated structure is ordinarily capable of much more complex behavior. This may be shown by illustrations from animal life. The simplest type of animal organism is the amoeba, which is composed of a single cell. The possibilities of behavior of the amoeba are extremely limited. It has the power of moving about by projecting a portion of its body in front and dragging the rest after it. In the same manner it is able to surround and engulf food particles. It carries on a simple process of digestion and excretion. When pricked with a pin it will move off in the opposite direction. If placed in a weak acid solution it will roll itself up in a ball. It will not cross a bright stream of light. It reproduces itself by a simple asexual type of division. The reason for such a simple life is the fact that the amoeba has no complicated structure which allows itself to develop complicated patterns of reaction.

Higher in the scale are organisms made up of a collection of cells. These cells are grouped to-

gether in what are called systems, and the cells in each system have a special type of structure. Each system tends to carry on and perform some particular function for the entire organism. Thus there is the digestive system, composed of a large number of cells of a highly specialized type, which carries on the process of digestion for the entire organism. Similarly there is a circulatory system, a respiratory system, and a large number of other systems which are likewise composed of highly specialized cells and which carry on a special process for the entire organism.

There is also a nervous system, which has a somewhat special function as compared with the others, because the nervous system carries on a certain directing, controlling and correlating influence over the activities of the entire organism. For this reason the nervous system is generally regarded as the most important system and man as being the highest type of organism because he has the most highly developed and specialized nervous system.

In the lower forms of life, where the nervous system is very little developed, there exists an independence of control of each part, and there are no higher integrating or controlling centers.

The sea-anemone represents one of the simplest types of multicellular organisms with a very simple nervous structure. The behavior of the sea-anemone is described in detail by Parker, who points out that the nervous system is a simple network which extends uniformly throughout the body, without any controlling center. The behavior of the sea-anemone is determined to quite an extent by the presence of such a diffuse nervous system. If food is placed on its tentacles, they surround the food and deliver it into the organism's mouth. If, however, one of these tentacles is cut off, but still kept in place, it will continue to respond in exactly the same way to food particles, and deliver the food into the organism's mouth. This shows the independence of each portion of the organism, and the lack of any centralized control. Another experiment of great interest is to feed the sea-anemone alternately bits of meat and bits of filter paper soaked in meat juice. At first both particles are accepted, but after eight or ten times the meat will be accepted, while the filter paper will be rejected. However, if this experiment is carried out on one side of the mouth and then tried on the opposite side of the mouth, the latter side has to learn the whole process over again, showing that

the first experience has had no effect on this latter side of the mouth. The reason for this is that there is no common nervous center which can affect the entire organism. As Parker puts it, "It is as though we had to burn each finger in turn before we discover that fire is bad for the hand." The behavior of the sea-anemone, therefore, is extremely simple because it has a simple nervous system. *without centralized cord*

.A little higher up in the scale is the earthworm. This organism is segmented and the nerve cells tend to be collected in each segment in small groups called ganglia. At the head end are several such ganglia which are sometimes referred to as the brain. Here we see the beginnings of nerve centers which are able to exercise a controlling and correlating influence on the activities of the entire organism. They are, however, extremely simple and rudimentary, and do not possess complete independence of control, that is to say each segment tends to maintain a certain independence of control although there is a tendency towards dominance by the head end. Experimentally, it has been demonstrated that the earthworm can learn by experience. If a pathway is marked out which divides to the right and left, and an electric current passed

through a wire on the right side so that the worm receives a shock every time he takes the right-hand path, the worm tends to learn to avoid the right-hand path and to take the left one.

Still higher up in the scale are the insects. In the insects the nerve cells tend to be collected in three or more important ganglia; one in the head, one in the thorax, and one or more in the abdomen. The insects such as bees and ants have a highly complex social organization, and in many respects have developed this tendency more highly than has man. They have, however, tended to develop what Herrick calls an invariable or predictable type of behavior so that they learn comparatively little by experience, and carry on essentially a stereotyped set of reactions. With the development of higher types of organisms, the nervous system becomes more highly developed and complex. In the vertebrates we find that the nervous system consists of two main divisions; the older portion which is referred to as the vegetative or autonomic nervous system, and the newer portion which is called the cerebrospinal nervous system. The vegetative nervous system represents the older portion of the nervous system and in some respects is similar to the nervous system of the

earthworm. It is composed of ganglia or collections of nerve cells located in front of the spinal cord and scattered throughout the thorax and abdomen. At the upper and lower ends, it is joined to the cerebrospinal. It supplies nerves to most of the organs in the chest and abdomen, and to the involuntary muscles of the body, so that it controls largely these so-called vegetative functions. The vegetative nervous system is divided into two portions; the central portion, commonly called the sympathetic, is antagonistic to the upper (cranial) and lower (sacral) segments. Hence there are two sets of nerve fibres supplying different organs and muscles. These two systems are antagonistic to each. For example: The eye is supplied by both sets; stimulating the sympathetic tends to dilate the pupil, stimulating the autonomic proper tends to contract the pupil. The heart is also supplied by these two systems. Stimulation of the sympathetic fibres tends to make the heart beat faster. Stimulation of the autonomic fibres tends to decrease the heart rate. It is of interest that the sympathetic portion tends to be stimulated whenever a marked emotion is produced. This explains the common tendency of the pupil to dilate and the heart to beat more rapidly in states of extreme emotion such as fear. Stimulation

of the sympathetic fibres also tends to stop the whole process of digestion, so that this portion of the vegetative nervous system really tends to prevent many of the vegetative functions from being carried on. All this explains how a powerful emotion produces such extreme bodily changes, and brings out clearly the fact that an emotion is not simply a mental state, but is a reaction of the entire organism, having both physical and mental aspects. Emotions such as fear or anger tend to stop the vegetative functions such as digestion and nutrition. They are to be regarded as protective mechanisms which prepare the organism for fight or flight. If emotions are continually aroused and no action occurs, a state of tension is produced together with a profound alteration of bodily functions. Hence some motor outlet to emotions is desirable, and the individual may walk off his anger as a means of relieving this tension. Since emotions produce these profound alterations in the activities of the organism, it is evident that many other so-called functional nervous conditions are to be explained in this manner. Nervous dyspepsia, nervous indigestion, mild anxiety states with palpitation of the heart and rapid pulse are only the persistence of the physiological aspect of un-

pleasant emotions. It is also of interest that the functions of the vegetative nervous system are not under conscious control. Hence the great difficulty frequently encountered in dealing with these conditions.

The cerebrospinal nervous system consists of the brain, the spinal cord, and the nerves connected with them. The brain is an enlargement of the upper end of the spinal cord. In the lower forms of vertebrates it is quite small. On ascending the scale, however, it becomes larger and more complex in structure. The brain itself is often divided into two portions. The older portion forms the brain stem and the more central part of the brain. This portion is quite similar in structure in all of the vertebrates. The other portion, which is more highly developed in man than in any other animal, consists principally of the two hemispheres of the brain. On the outer surface of these hemispheres are several layers of nerve cells which form the cortex of the brain. In the lower vertebrates the cerebral hemisphere and cortex are very little developed and do not play such an important rôle in the behavior of the organism. In man, however, this portion of the brain is very highly developed and has to do with those qualities which distin-

guish man from other organisms. The older portion of the brain contains within it a large paired organ known as the optic thalamus which receives all sensory nerves, and all nerve impulses coming to the brain, with the exception of the sense of smell, pass through this organ. The optic thalamus is closely linked up with the emotional life of the individual and represents a lower mind which man shares with many lower animals. The cortical mind represents the higher intellectual functions and the voluntary controls. Consciousness seems to reside largely in the cerebral cortex, for if these cells are paralyzed by the use of some drug, the individual becomes unconscious. The cortex of the brain represents about 1 cubic inch of brain cells, weighs about 13 grams and is composed of approximately 9,700,000,000 cells. What we call intelligence is without question a function of the nervous system and it increases with the development of the nervous system.

We have said that consciousness resides largely in the cerebral cortex. Does this mean that animals which have not developed a cerebral cortex are not conscious? Or is there any certainty as to what organisms are conscious? There are various theories concerning this. First, there is the idea that man is 'the only animal

which possesses consciousness; second, there is the idea that every animal which is capable of learning by experience possesses consciousness; third, there is the view that consciousness is present in all organisms but in a more rudimentary form in the simpler types. It is not possible to settle this point, but it may be remarked that the concept of a mind and a consciousness, present in rudimentary form in the simplest unicellular organisms and developing along with the structure of the organism, is one that fits in logically with our views concerning evolution.

Intelligence is also closely linked up with the cortex of the brain, and in persons of high intelligence there tend to be very deep convolutions with an intricate pattern. Man's supremacy over other organisms is largely because he has developed his intellectual capacities and has also acquired the symbolism of speech, a means by which he can convey thoughts and ideas to other human beings. The development of both intelligence and speech is linked up with the development of the brain. Hence, man's development of his brain is what has determined his supremacy. On the other hand, man does not have the largest brain, either absolutely or relatively. Both the whale and elephant have brains which weigh more than the brain of man, and

the brain of the rat weighs more in proportion to its body weight than does the brain of man. Certain parts of the brain are less well developed in man than in other animals, and certain of man's capacities are less well developed. For example: The olfactory lobe is very poorly developed in man, as is also the sense of smell, whereas in certain animals such as the dog and deer the olfactory lobe is more highly developed, and the sense of smell is much keener.

Attempts are constantly being made to determine the location of certain functions in the brain, the idea being that certain cells in the brain perform certain functions. This idea dates back to the time of Gall. Gall noticed that a certain student had a wonderful memory, and that his eyes seemed to stick out of his head. He, therefore, assumed that the faculty of memory was located in the frontal lobes of the brain, and that this particular individual's memory was so highly developed that the frontal lobes were actually pushing his eyes out of his head. He also noticed that those persons in church who seemed to be most devout in their prayers had an enlargement of the posterior portion of the skull, so he assumed the presence of a religious faculty localized in this region. In this fashion, by assuming the mind to be made up of various facul-

ties he attempted to find the location for the various faculties in the brain, assuming that any bulging of the skull meant a development of the brain underneath, and a corresponding increase in whatever faculty was represented by this area. This gave rise to the so-called science of phrenology, which is now largely exploded, although even at the present time a certain number of character analysts profess to be able to determine character and personality by some such method. No longer is the mind thought to be made up of a number of faculties, and in the same way no longer is the brain thought to be composed of specific areas which represent a certain mental faculty. The present tendency is to think of the brain as functioning much more as a whole, but with the idea that there are certain crucial points which are connected with certain specific functions. Human behavior will only be partially intelligible by the development of more specific knowledge of brain localization. At the present time this knowledge is extremely vague and for the so-called higher functions very little knowledge exists beyond what has already been stated. With regard to centers for certain special senses such as sight, smell, hearing, etc. some such knowledge does exist, and certain of the motor centers are established as well as some im-

portant pathways by which nerve impulses of various sorts are conveyed to and from the brain.

A study of the sensory nerves and the means by which man receives sensations of various sorts shows that special nerves respond to certain vibration rates and when these impulses are conveyed to appropriate centers they give rise to specific sensations. For example, the nerve endings in the eye respond to certain vibration rates of light and give rise to the sense of sight. However, these nerves respond only to a limited number of vibration rates so that at each end of the spectrum there is light which the eye does not see. These are the ultra-violet and infra-red rays which can be scientifically demonstrated and proven to be present, but which are never seen. They are sometimes referred to as "invisible light." In the same way there are certain vibration rates of sound which are too high or too low to be perceived by the human ear. There are many vibration rates for which man has no sensory organ. For example, there is the vibration rate of the x-ray. Hence, a man might be subjected for a long period of time to an x-ray machine which was concealed and he would have no idea of the fact. Only later on when severe x-ray burns developed would it be realized that such was the case. As stated before

certain animals have their sense organs better developed than does man. The eagle has a keener sense of sight, the dog has a keener sense of smell. Since one's knowledge of the universe about him is to a large extent determined by his sensory impressions, it is evident that man's knowledge and understanding of the universe is only partial because of these defects in his nervous system.

CHAPTER III

THE GLANDS OF INTERNAL SECRETION

SCATTERED throughout the body are a number of glands which have no ducts and hence are sometimes called ductless glands. They also pour their secretion directly into the blood stream, and therefore are also known as glands of internal secretion. Still another name for them is the endocrine glands.

These glands have attracted a great deal of attention during the past ten or fifteen years, and much has been written concerning them. According to some of these accounts these glands are the most important organs in the individual, and determine the individual's physical and mental development as well as his physical and mental health. All sorts of extreme and startling claims are made concerning these glands. What is really known concerning them, and what part do they actually play in determining human behavior?

In the first place, information concerning

these glands is in many respects vague and contradictory. It is not even definitely established whether or not certain of them have an internal secretion.

• The glands most commonly considered as glands of internal secretion are the pineal, pituitary, thyroid, parathyroid, thymus, adrenals or suprarenals, pancreas and sex glands.

The pineal gland is located near the center of the brain and its function is not well understood. It is of interest that Descartes "held that the soul or mind was particularly united to a certain part of the brain called the pineal gland, by means of which it feels all the movements that take place in the body and external opposition, and which the mind, by very fact that it wishes, can move in various ways. He held that the gland is suspended in the middle of the brain in such a way that it can be moved by the least motion of the animal spirits. . . . He held, moreover, that the every wish or will of the mind is united to a certain motion of the gland." This early formulation sounds rather fantastic, yet it is questionable whether it is any more fantastic than some of the writings of the present day.

It is interesting to note that Spinoza objected to Descartes' formulation and made actual studies of the pineal gland. As a result, he wrote an

article contradicting Descartes and concluding with the following statement: "Add to this that this gland is not found thus situated in the middle of the brain which has such easy action all around and in such a number of ways, and that the nerves are not all extended to the cavities of the brain." Thus we see how very long ago the earliest formulations of the armchair endocrinologist fell before any scientific study.

Experimental studies are quite contradictory. Some indicate that the pineal gland has no function, others indicate that it affects the rate of development of the organism. Furthermore, some of the latter experiments indicate that feeding the pineal gland retards development while others indicate that it hastens development. There is one theory advanced with regard to the pineal gland that is of interest. This theory holds that early failure of the gland to function produces an individual who is precocious both sexually and intellectually. The evidence for this is that in certain tumors of the pineal gland in small girls there occurs a development of the secondary sex characteristics such as growth of the breasts and of hair on the pubes and under the arms, together with the establishment of the menstrual cycle. Also, in certain children of very superior intelligence, x-rays of the skull show a

calcification of the pineal gland, thus indicating that it is no longer functioning. Nathan Leopold, who together with Richard Loeb kidnapped and murdered Bobby Franks, had an extremely high intelligence as shown by various intelligence tests. X-ray examinations showed that there was calcification of his pineal gland. It can be said, however, that there is no real proof that the pineal gland has an internal secretion, and that the effects mentioned above might be the result of damage or of stimulation of brain tissues in the region of the pineal gland.

The pituitary gland is located in a bony cavity at the base of the brain. It consists of two lobes, an anterior and posterior. At the present time two definite internal secretions have been isolated for each lobe. The anterior lobe has a secretion which controls the skeletal growth of the individual. If there is too much secretion the individual is overdeveloped. The giants one sees in the circus are an example of this hypersecretion. If there is too little of this secretion the skeleton does not develop enough, and the individual remains a dwarf. The symmetrical type of dwarf also familiar at the circus is an example of lack of this secretion. The second secretion of the anterior lobe has to do with sexual function, an oversecretion producing a stimula-

tion of sex function, an undersecretion producing a decrease of sex function. The posterior lobe has two secretions, one of which has to do with the contraction and tone of involuntary muscles throughout the body, and the other of which has to do with water metabolism. There is little evidence that the pituitary gland has any direct influence on the mental life of the individual.

Studies of cases of disease of the pituitary gland show no characteristic changes of personality. There is a condition known as Froehlich's syndrome which is thought to be due to a lack of pituitary secretion with other glands also affected. The individual suffering from this disorder tends to put on a great deal of fat, particularly about the hips. There is often failure to attain a normal sex development. In the male, there is frequently a tendency to develop the female type of figure. An interesting case of this type is that of a young man who dances the hootchy kootchy in a circus sideshow. One cannot keep from wondering what would be the reaction of the thousands of men who have paid their money to get a thrill from watching this supposed female dance in scant attire if they had known that it was really a man they were observing. This same young man has been arrested so

many times by the police under the impression that he was a girl dressed in male attire that he finally secured a court order signed by a judge which he carried about with him to show to suspicious policemen. Individuals suffering from Froehlich's syndrome vary greatly in intelligence. Many are of superior intelligence while some are feeble-minded. It is probable that the glandular disorder has nothing to do with their intellectual capacities.

There is also a condition known as narcolepsy, in which the individual sleeps a great deal and is unable to keep awake. This is also thought to be due to a pituitary defect. It is often associated with a Froehlich syndrome. The fat boy in Dickens' "Pickwick Papers" is a typical example of this type of disorder. The pituitary probably has some influence on sleep and there is some evidence that the hibernation of animals is due to the influence of this gland.

In tumors of the pituitary gland, the personality changes that occur are probably due to pressure on the brain rather than to alterations of the internal secretion of the pituitary.

The thyroid gland is located in the neck just below the thyroid cartilage or Adam's apple. Any enlargement of this gland is known as a goitre. ~~The size of the gland~~ does not necessarily

indicate its activity, as a small gland may over-secrete and a large one may undersecrete. More is known concerning the thyroid gland than any of the other glands of internal secretion. It has a marked effect on the physical and mental life of the individual. The internal secretion of the thyroid gland contains a high percentage of iodine. Hence iodine is necessary in the diet if there is to be a normal thyroid gland. The so-called goitre districts in America and abroad are regions where there is little or no iodine in the soil or drinking water. This causes the enlargement of the thyroid and a lack of its internal secretion. In such cases, feeding small doses of iodine regularly will overcome the defect.

A marked congenital defect of thyroid secretion produces a condition known as cretinism. The mentality is affected so that the child is an idiot and growth is impaired so that the child remains a dwarf, not the symmetrical type as in pituitary disorders but with short arms and legs.

Lack of thyroid secretion later in life results in a condition called myxoedema. The individual tends to become dull, stupid and stolid. There is a marked increase of weight with loss of hair and a thick dry skin. Feeding the thyroid gland of animals (most commonly of sheep) will cure

the condition and the individual can be kept normal by daily feedings of the necessary amount of thyroid extract. If the thyroid feeding is discontinued, the individual quickly reverts to the state of myxoedema.

Since the thyroid gland has a controlling effect on the rate at which the individual burns up or oxidizes his tissues, an oversecretion will cause the individual to oxidize his tissues too rapidly and hence lose weight. There is also a tendency to a rapid heart, easy fatigability and tremors. Mentally, the individual is likely to become tense, apprehensive and emotionally unstable.

For a good many years, the possibility of certain cases of mental disease being due to thyroid deficiency has been considered but most studies have yielded negative results. During the past two or three years the question has been revived and is still unsettled.

The thymus is a rather large gland situated below the thyroid. Normally it tends to become much smaller, and almost disappear at the time of puberty. Like the pineal gland there is no clear proof that the thymus has an internal secretion. The claim is sometimes made that like the pineal, the thymus glands tend to retard development, and that if there is an early decrease

in the gland's function the individual tends to develop in a precocious manner. It has also been claimed that a persistent thymus results in the individual remaining at a childish emotional level. These are only hypotheses which have not been proven.

It is known, however, that with persistence of the thymus there may be a small heart and small blood vessels. This results in easy fatigability and may cause sudden death following the administration of an anaesthetic or after violent exertion.

The parathyroids are several small glands located just behind the thyroid. They have to do with the control of calcium metabolism and perhaps have some effect in counteracting poisons in the blood stream. No other function is known, although recently an attempt has been made to show that certain irritable and unstable children have a calcium deficiency due to improper functioning of the parathyroids.

The adrenal or suprarenal glands are two in number, one above each kidney. Each gland is divided into two portions, the cortex and the medulla. The cortex has an internal secretion which is of great importance. Its nature is not well understood although recently claims have been made that it has been isolated. When this

portion of the gland becomes diseased the individual tends to develop a low blood pressure, his skin becomes bronzed and he tires very easily. The medulla contains an internal secretion called suprarenin which is thrown into the blood stream in times of special emergency and which tends to increase blood pressure, to abolish fatigue and, in general, to stimulate the organism to activity. The adrenal medulla is commonly stimulated whenever extreme emotion is aroused.

Attempts have been made to link personality types up with these glands. It is claimed that hyperfunction causes an individual to be energetic, aggressive and irritable and that hypofunction causes an individual to be meek, placid and lacking in energy. It is also claimed that the so-called neurasthenic syndrome, in which the patient has low blood pressure, feels tired out all the time, lacks energy, complains of inability to concentrate and has numerous other symptoms, is due to lack of secretion of the adrenal glands. Attempts to show that the adrenal medulla is at fault have not been accepted. Too little work has been done with the adrenal cortex to venture any opinion about its relationship to neurasthenia. Attempts to link up the adrenal glands with certain personality types have not been successful. •

The pancreas is a comparatively large organ which is situated in the abdominal cavity. It secretes various digestive enzymes which are poured out into the small intestine. In addition, it has an internal secretion known as insulin which has to do with the utilization and storing up of carbohydrates in the body. Lack of this internal secretion results in a condition known as diabetes mellitus in which sugars and starches cannot be utilized but are excreted in the urine. Injections of insulin relieve this condition temporarily but do not produce a real cure. It is generally accepted that the pancreas has no relationship to the mental life of the individual.

The sex glands have a definite internal secretion which affects the individual both physically and mentally. If there is a lack of this secretion, the characteristic physical changes of puberty do not take place, and the individual tends to resemble a person of the opposite sex. In the male the beard does not develop, the voice remains feminine in character, and the body build is affected. Because of this effect on the voice, boys were castrated in order to secure male sopranos for the choir of the Sistine Chapel. If castration occurs before puberty the effects are quite different than if castration occurs after puberty. Castration after puberty often has little

effect on the sex life of the individual, although, of course, it prevents procreation and stops the menstrual cycle in the female. There is usually a tendency to put on fat, and some change of personality may occur. It has long been recognized that castration produces a marked effect on animals, that they become quieter and more tractable. This is one of the reasons for the great amount of castration that occurs among farm animals.

The glands of internal secretion form a chain in which the different glands react upon each other. Certain glands are antagonistic to each other, whereas other glands more or less supplement each other. For this reason there seldom occurs a simple disorder of a single gland. When one gland is involved the whole chain of glands tends to be affected. It is evident from what has been shown that the glands of internal secretion do have a definite and specific effect on the personality. However, they are only one of the many organs which affect the personality. They are not super-organs, subject to no outside control, which completely dominate and control the organism. They are, themselves, subject to some degree of control by the nervous system so that they are affected by conditions which affect the rest of the body.

Extreme emotion affects both the adrenal and thyroid glands, and disorders of these glands may be the result of extreme emotional states rather than the cause of them. Personality is not simply a question of the glands of internal secretion. They are merely one of a number of factors which determine the personality.

CHAPTER IV

HOW PHYSICAL DISEASE AFFECTS OUR MENTAL LIFE

THE study of a large number of abnormal physical conditions demonstrates how the mental life of the individual can be affected by these conditions. One of the simplest illustrations of this is the relationship between fatigue states and such conditions as irritability. Every one is familiar with the fact that the small child, who is allowed to overdo, becomes very tired and cross, and a typical remark is that the child is all tired out and, therefore, cross and peevish. It is generally understood that the treatment for such a condition is not to punish the child, but to put him to bed and allow him to rest, and that after an adequate period of rest he will recover his usual pleasant disposition. It is also well known that the child who develops an irritable and whining disposition may do so because he is so under par physically, that he has not the strength and energy to meet the demands of life, and therefore, goes along in a chronic

fatigue state in which he presents many behavior disorders. In such cases it is also obvious that the treatment is to build up the child's physical condition.

When one studies actual physical diseases, a few illustrations may be cited out of a large number of examples to show how this occurs. One of the most interesting examples occurs in encephalitis lethargica, or so-called sleeping sickness. This is a disease of unknown cause which produces an inflammation of the brain, particularly at the base. In children it often produces a marked effect on the personality, and frequently the child who has apparently recovered from an attack of this disorder shows a most undesirable alteration in his personality. A child who has previously been obedient, well behaved and of a likable disposition becomes irritable, aggressive and unmanageable.

Other causes of personality change are head injuries, infections of the brain due to syphilis, cerebrospinal meningitis, and the like; tumors of the brain, and the changes of old age which produce hardening of the arteries and atrophy of the brain. A number of cases of feeble-mindedness arise on the basis of brain injury or disease.

A case of encephalitis lethargica (so-called sleeping sickness) followed by a personality

change and anti-social behavior will illustrate this.

Earl D., a colored boy of seventeen, was arrested for attempted sex assault on a small girl. A study of the case showed that he had had a normal birth and development, that he had played normally with other boys, had been fond of sports and was regarded as quite good natured, sociable and adaptable. There were no neurotic habits. He had finished the fifth grade at twelve, having been promoted each year with an average grade. When thirteen, he suddenly became drowsy while attending school. It was then noticed that he kept falling asleep in his classes. At home he would have headache and vomiting spells. He was taken to a hospital where he remained for several weeks. There he was diagnosed as having encephalitis lethargica. After returning home from the hospital it was noted that there was a marked change in his personality. He became untrustworthy, incorrigible and disobedient. He would steal money from his mother whenever an opportunity occurred. He was gluttonous, would steal food from the pantry and gained weight rapidly. His memory became poor and he was unable to keep up in his school work. Finally there occurred the attempted sex assault on a small girl which led to

his examination at the Boston Psychopathic Hospital. There it was noted that he seemed somewhat keyed up and happy, that he had developed a compulsion to touch everything, that his memory was markedly impaired and that there was definite intellectual deterioration. The physical examination showed the typical expressionless facies, lack of associated movements and the tremors which are present in a disease of this sort.

The following case of encephalitis lethargica (so-called sleeping sickness) also shows this personality change.

William L., a boy of eight years of age, was brought to the Boston Psychopathic Hospital for examination because he had failed in all of his school work, was running away from home, and was becoming unmanageable. A study of the case showed that up until five he had been a normal, healthy boy who was said to have an affectionate, generous, unselfish disposition. At five he had an attack in which he became unconscious and was blind for two days. Following this he was in bed for three months in a semi-conscious condition. A diagnosis of encephalitis lethargica was made. Following this he showed a marked personality change. He tended to be overactive, he had marked temper tantrums, he

ran away from home and failed in all of his school work. When examined at the hospital he was somewhat overactive, extremely enthusiastic and rather difficult to restrain. He got into no serious trouble, however. His intellectual functions were quite intact, so that his failure in school work was considered to be due to lack of attention rather than to any intellectual deterioration. The physical examination was essentially negative.

The next case shows a personality change due to organic brain disease caused by syphilis.

Charles T. was a single man of forty years who was brought into the hospital because he had stopped work and was acting in a peculiar fashion. A study of the case showed that his early development had been quite normal, that he had finished the eighth grade, receiving a prize for his scholarship. He had worked in the shipyards for the past twenty years and was regarded as a steady and reliable worker. In personality he was said to be quiet, good-natured, even-tempered, rather thrifty and moderately religious. It was noted that for the past year he had trouble sleeping nights. Three months before admission he became absent-minded, he would mislay things like his glasses, forgetting where he put them. He became very lax and coarse with

regard to his table manners. He would spill things continually on the table cloth and on his clothing. When things were passed he would take helpings with his individual fork and spoon. His attitude toward his nieces was rather questionable and he often made rather vulgar comments concerning girls he would see on the street. Two weeks before admission he shocked the household by telling a very improper joke before company. He was unable to carry on at his work and would sit around as if in a trance. Shortly before admission he started spending his money foolishly and telling fantastic stories. When admitted to the hospital he was overtalkative, elated, and showed considerable impairment of his memory. There was also considerable intellectual deterioration in other fields. The physical examination showed that he had general paresis, an organic disease due to syphilis.

Another case of personality change and anti-social behavior is the following one due to head injury.

George R., a married man of fifty-four, was sent to the Boston Psychopathic Hospital after he had been arrested for threatening his wife. His early history was uneventful, he had comparatively little schooling, finished an appren-

ticeship and then went to work as an iron molder. He was an industrious worker but drank to excess. His first marriage ended in a divorce after twelve years because he tended to abuse his wife when drunk. He was married a second time to a very good-natured, easy-going woman. He got along well until five years before admission when he received a fracture of the skull in an automobile accident. For a number of weeks he had severe headaches and was confused and excited at times. Finally he improved enough to leave the hospital but showed a marked personality change. He became markedly irritable, was emotionally unstable, careless of his person and quite lazy. He refused to work and would lie around the house all day long, sleeping part of the time. At one time he became violent and assaulted his wife with a knife, resulting in his being sentenced to two years in jail. In jail he was quiet and less explosive in temper, having some spells of depression. He was regarded as being rather childish. After his discharge from jail he returned home and showed the same sort of behavior as before. As a result of this he was re-arrested and sent to a hospital for examination. In the hospital he was very childish, usually cheerful and elated but became angry with little provocation. He gave

varying and incorrect accounts of things and would become very angry if anyone questioned his statements. There was marked impairment of his intellectual functions.

Another case is one of personality change due to fracture of the skull and cerebral arteriosclerosis (hardening of the arteries of the brain).

Isodore S., a married man of fifty-nine, was admitted to the Boston Psychopathic Hospital after he had been arrested, charged with setting a fire in order to collect the insurance. He had been found guilty of arson by a jury and was awaiting sentence. A study of the case showed that he had a common school education, had worked at various positions and gradually built up a business of his own. Finally he had sold this business and invested his money in real estate so that he was worth well over \$100,000. He had been married for thirty years, there were three children, the marriage was happy and congenial. He had always been temperate in his habits though he took an occasional glass of wine. He had suffered from gall bladder disease for a number of years but refused operation. He was described as a very cheerful, kind-hearted, generous individual who was extremely honest, very sensitive and high-strung. The fam-

ily related how the patient had become exceedingly forgetful during the past year. He would forget business appointments, could not even remember his own address at times. He would pay the same bills several times. He made very imprudent investments and lost a large part of his money to unscrupulous persons who were able to persuade him to invest in questionable enterprises. At times he became rather elated and grandiose, and spoke of having special abilities. Examination at the hospital showed that the patient had marked cerebral arteriosclerosis and an old fracture of the skull. There was marked deterioration intellectually so that he could only pass tests which the average boy of eight years could pass. His mood was very labile, that is he would cry easily but could be cheered up with a few words and would tend to become grandiose and boastful.

A case of personality change due to brain tumor illustrates the same point.

Joseph J., a single man of forty-nine, was admitted to the Boston Psychopathic Hospital following an operation for brain tumor. The study of the case showed that his birth and early development had been normal. He had worked steadily as a leather tanner. He married at twenty-one and his marriage was congenial. He

was always a good provider. He used alcohol temperately. He was said to be distinctly a home man, devoted to his family, well liked, having many friends. He had no special interests or abilities. Two months before admission he started complaining of headaches, he would also say that he felt dopey and tired out. Then it was noticed that he was extremely forgetful and would become easily confused. He was taken to a hospital, where a tumor was removed from the right temporal lobe of the brain.

A case of acute confusion in a normal personality due to disease of the heart and arteries and overwork is a further example.

Annie M., a married woman of forty-seven, was admitted to the Boston Psychopathic Hospital because she was overactive, confused and had threatened to kill her husband. A study of the case showed that her early development was normal. She went to the last year of high school. She was said to have a very pleasant and friendly personality. She was fond of theatres and dancing. She had many friends, was very adaptable, quite stable emotionally and not over-sensitive. She worked in an office until twenty-four, and was married at twenty-seven. The marriage was happy. She had had heart trouble since adoles-

cence. At first this had interfered very little with her activities, but after the birth of her first child it was much worse. However, she improved after a short time and was able to be about. After the birth of her second child she was dangerously ill for thirteen weeks and remained an invalid from that time on. About four months prior to admission she was more active than usual, going out to more parties and entertainments. She also seemed to become more irritable about the house, was upset over trifles, worried about her husband's work. She could not sleep well, became very irritable and cried at times. On admission to the hospital it was found that she had a very high blood pressure with an enlarged heart which was decompensating. There was considerable arteriosclerosis present. She was underweight and obviously had been overdoing. When first admitted to the hospital the patient was overactive, confused and excited. She was put to bed, the heart condition was treated, and coincident with the improvement of her physical condition her mental condition improved. At the end of a month she was quite her usual self; mentally and physically was as well as she had been for years. She was able to return home and has remained well ever since.

Ordinary physical disease may produce a great many mental changes. It has long been noted that a peculiar state of optimism is present in many advanced cases of tuberculosis. Many times an individual who feels depressed and inadequate may find that there are certain hidden infections in the body such as an infected tooth or an infected sinus and that the curing of the physical condition restores him to his normal state. It is not easy to link up abnormal emotional states with specific poisons or localizations in the brain. However, it is interesting to point out that fear states are very frequent in disease of the thyroid gland, in certain heart conditions and as a result of alcohol. In fact there has been certain experimental work to show that dogs fed large amounts of alcohol tend to develop fear states. Fear is also a characteristic of many of the mental disorders due to excessive alcoholism. Yet different individuals may show different effects from the same drug, showing that the personality plays a part in even such simple reactions. If a quart of whiskey were to be divided into three equal portions and three persons were each given one of these portions, it might be found that there was a marked difference in their reactions. The first individual might become very happy and elated, laughing

immoderately and joking at every opportunity; the second might become weepy and maudlin and wish to tell his troubles to anyone who would listen to him; while the third might become very irritable and quarrelsome and attempt to pick a fight with everyone.

Abnormal states of wellbeing often occur in tumors of the frontal lobe of the brain, and in general paresis (an organic brain disease due to syphilis). A specific type of memory disorder in which the individual cannot remember recent events in his life, but does recall quite clearly the details of his childhood is commonly met with in senile conditions. Drugs of various sorts have a well-recognized effect on the mental life of the individual, and the large number of drug addicts is proof of this. Morphine and other derivatives of opium have the power to abolish pain and produce a feeling of wellbeing. This is well illustrated by the following quotation from the *Odyssey*: "Whoso should drink a draught thereof, when it is mingled in the bowl, on that day he would let no tear fall down his cheeks, not though his mother and his father died, though men slew his brother or dear son with the sword before his face, and his own eyes beheld it." Cocaine has, for many individuals, a definite stimulating effect and tends to abolish fear. For

this reason it is frequently used by gunmen and other criminals. Further illustrations might be given, but the examples shown seem sufficient to demonstrate how a great many different mental conditions may be the direct result of specific diseases or drugs. It should be emphasized, therefore, that any study of mental states must take this fact into consideration and the possibility of a mental condition being due to damage or disease of the brain or to some disease process must always be kept in mind. The physician always rules out these simpler physical causes before he proceeds to the study of the more complicated mental causes which may be at the basis of certain behavior.

CHAPTER V

SOME MODERN THEORIES OF BEHAVIOR

TO understand human behavior and to make our actions intelligible, certain specific theories have been advanced.

The simplest type of behavior is automatic and depends on the inherent properties of the cell. So certain qualities, such as irritability or the capacity to respond to a stimulus, are assumed to be properties of living matter.

In plants and in the lower animals, there is a type of behavior called a tropism or taxis. This is an invariable type of response which can (for the present, at least) only be explained by the inherent capacity of the organism to respond in a definite way to a specific stimulus. The stimuli may be of various types. For example, certain bacteria may be attracted or repelled by chemical substances in solution. This is called chemotaxis. If attracted, it would be a positive chemotaxis; if repelled it would be a negative chemotaxis. Or the larvae of barnacles will swim

towards a bright light. This is called phototaxis.

With the organization of a nervous system, there occurs what is called the reflex or reflex behavior. This is explained by the reflex arc which may be thought of as the functional unit of behavior. The reflex arc consists of three portions: (1) There are afferent or sensory nerves by means of which stimuli are conveyed from receptors or sense organs towards the brain or spinal cord; (2) There is a central portion lying in the brain or spinal cord which may modify and deal with the stimulus and direct it towards the proper outlets; (3) There are efferent or motor nerves which carry the impulses outward to the muscles or glands, resulting in some type of reaction or behavior. Much of our behavior occurs at this reflex level.

Besides the simple reflex, there is what is known as the conditioned reflex. The most important early work on ~~this~~ was done by Pavlov. Pavlov found that dogs, when shown food, secreted saliva as a normal reflex act. He showed the dogs food and at the same time rang a bell. After repeating this experiment for a number of times he found that ringing the bell without showing food was sufficient to cause the dog to secrete saliva. This reaction was called the conditioned reflex. By such experimental work it

was shown how some vicarious stimulus could be made to arouse the response, normally aroused only by a specific stimulus.

Watson carried on further studies of the conditioned reflex and published other interesting examples of it. He showed that it was possible to condition an individual in many ways. If an electric stimulus was applied to the foot, causing the foot to jerk up, and a bell rung at the same time, it was found that upon repeating this experiment from twenty to seventy times, the ringing of the bell alone would cause the foot to jerk up. In another experiment light was flashed upon the pupil of the eye, causing the pupil to contract, and a bell was rung at the same time. After a number of repetitions, ringing the bell alone would cause the pupil to contract. Watson stated that the conditioned reflex produced essentially the same reaction as the true reflex, and that once established it tended to persist. It might fade out, but if so it was easily recalled. Watson did further work to demonstrate the practical application of all this to human behavior. He showed a rabbit to small babies and found that they showed no emotional reaction. He then pinched them whenever he showed the rabbit, setting up a conditioned reflex of fear. In this way the child was sensitized to the new and

vicarious stimulus. Then he showed the rabbit and at the same time placed a piece of candy in the baby's mouth. After a time this resulted in a loss of fear reaction and the development of a reaction of pleasure. This experiment showed how an individual might become sensitized to all sorts of stimuli, and how it is possible to desensitize an individual and secure an entirely new type of reaction to the same stimulus.

This principle of the conditioned reflex is of great importance and explains many neurotic and morbid reactions which would not otherwise be intelligible. It also points out a way of training the individual.

Watson feels that the conditioned reflex is an adequate explanation of all behavior and in the new school of psychology which he called Behaviorism he has attempted to explain everything in terms of it.

Watson attaches but little importance to heredity. "Nurture not nature" is the great cause of our behavior. He says that only three emotional patterns exist in the unconditioned infant. Fear is aroused by a loud sound or loss of support, rage by thwarting bodily movements and love by stroking contact of the skin. All other emotional reactions are due to conditioning.

Watson claims "there is no faculty or process of memory—there is only learning, and loss in skill which comes from lack of practice." There is no such thing as auditory or visual images. The behaviorist has "made a clean sweep of all the rubbish called consciousness." All that happens when we remember is that we carry on a conversation with ourselves at a lower level than talking or whispering. Thought is talking silently to oneself, "inward verbalization." During this process, some sort of muscular activity goes on in the throat.

Since Watson claims there is no mind and no consciousness, he denies the existence of the unconscious. For the unconscious, he substitutes the un verbalized, just as the conscious is considered the verbalized. The mental patient has un verbalized tendencies which he cannot give to the physician through speech. Hence analysis is a useless procedure and merely verbalizes. The treatment, according to him, is re-education, re-conditioning and re-integrating.

Other theories have been set up to give further understanding and insight. The recapitulation theory is based on the idea that, in the process of development, the individual passes through, or recapitulates, the various stages of development which the race has passed through during

the process of evolution. It also brings out the idea of new structures being superimposed on old structures, and new reactions being superimposed on old reactions.

The following illustrates how behavior may be interpreted in this way: In the newborn child, stroking the sole of the foot will cause the great toe to extend upward, but by the time the child is a year old, stroking the sole of the foot will cause the great toe to flex downward. This is due to the fact that the motor pathways in the brain were not fully developed at the time of birth, and that with their development a new pattern of behavior was acquired. The old pattern was not abolished, it remained latent, ready to express itself whenever an opportunity occurred. If some damage later occurs to these motor pathways in the brain, the physician, on examining the patient, finds that stroking the sole of the foot produces the extension upward of the great toe. It is not the damage to the motor pathways which has produced the extensor response; this damage has simply abolished the more recently acquired flexor response, and when this more recently acquired type of behavior is done away with, the organism reverts back to the old level of behavior, which in this

case is the extensor response. All this illustrates how with the increasing complexity of the nervous system a great number of behavior patterns are built up, one overlying the other, and how, if damage occurs which affects a higher or more recently acquired pattern of behavior, the organism returns or regresses to an older or more simple pattern of behavior.

There is an old saying that civilization is only skin deep. What is meant is that civilization produces a new set of reactions which supplants and overlies the older and more primitive reaction patterns. But these newer habits of behavior are so recently acquired that they are not firmly ingrained and established. So the civilized man although intellectually recognizing the need of obedience to law and order may find that, under comparatively little stress and strain, he tends to settle his difficulties, as does primitive man, by an appeal to force.

There are some who see mental disease as simply a return or regression to more primitive modes of thought and behavior. Such writers as Levy-Brühl and Störch give interesting examples which tend to support this view.

The recapitulation theory, though also of great value, again proved to be inadequate, and

the integration theory of Sherington was formulated as an attempt to make behavior completely intelligible.

Sherington attempted to work out the lower reflexes and determine the level at which they occurred through experiments on dogs and cats, with the idea that the higher reflexes would prove to be simply integrations and could be only explained in that manner. He found that the six to eight lower segments of the spinal cord were all that were necessary to produce a simple flexion reflex, that going up higher so that there were considerably more segments of the cord allowed the scratch reflex to occur. However, it was found that the scratch reflex seemed to demonstrate that the theory of integration was not adequate to explain behavior. In the scratch reflex it was found that if the right side of the dog was stimulated, the right leg would come up in the typical manner. However, if the right leg was held, the left leg would come up. If the dog was placed on his right side he would try to scratch the right side with his free left leg, but if the left leg was held he would then try to scratch with the right leg.

The endeavor to explain these reactions led to certain formulations which have been associated to a large extent with the Gestalt Psychology, although American psychiatry has long

been familiar with these ideas. According to this formulation behavior was originally explained by certain localizations and by study of the parts of the organism. This proving unsatisfactory it was held that the entire architecture or set-up was necessary to explain the reactions; it was said that the whole could not be completely explained by its parts, and that it was just as necessary to explain the parts by a study of the whole. It was felt that the organism as a unity had certain qualities which could never be explained or understood by the study of the parts, and that all behavior is influenced by the total organism acting as a unit. It was also held that if an organism was changed or injured it was no longer simply the old organism with the part removed, but that it had become an entirely new organism, and its behavior could not be understood simply by a study of the behavior of the unchanged or uninjured organism.

The psychoanalytic theories also are of importance in any formulation of human behavior. It is extremely difficult to present any worthwhile summary of these views for several reasons. In the first place, the views of Freud, who is commonly accepted as the founder of psychoanalysis, differ materially from the views of many other individuals who are usually con-

sidered psychoanalysts. In the second place Freud, himself, has constantly changed and revised his theories so that what would be a correct presentation of them at one stage would be extremely unsatisfactory as a presentation at some other stage. An attempt will be made, therefore, to give a rather hasty and superficial sketch of Freud's theories starting with his first formulations and pointing out the changes which have gradually occurred.

In 1893, Breuer and Freud published a paper "On the Psychical Mechanism of Hysterical Phenomena." Following this, Breuer, who had been working at some of these ideas since 1880, dropped out of the picture and published no more on the subject. Freud, however, continued to develop his theories on psychoanalysis so that from that time until the present there have been constant changes and additions to his formulations.

In the beginning, psychoanalysis was a method for treating mild nervous and mental conditions and contained a theory as to the cause of such disorders. At first, Freud found that by hypnotizing these patients and getting them to talk, they related various upsetting experiences of a sexual nature which had occurred to them before five years of age. It was also found that

after the patient had talked these matters over with the physician his neurotic symptoms disappeared. On the basis of all this Freud originally felt that hysteria was brought about by unpleasant experiences which were nearly always found to be of a sexual nature, which had occurred before five years of age. He felt that such experiences were so upsetting to the patient that they had been crowded out of consciousness or repressed, but although repressed they still continued to affect the individual's life in an unfavorable manner. A set of ideas with an emotional tone that had been repressed was referred to as a complex, this term being suggested by Jung. The treatment was to recall these forgotten memories into consciousness so that they would no longer produce the unpleasant symptoms. Freud thought of these painful memories as experiences which the individual had been unable to assimilate but which remained like foreign bodies hidden in his system, and continued to irritate and produce symptoms. Just as a hidden abscess in a tooth might produce all sorts of unpleasant symptoms which would disappear when the abscess was laid open and drained, so Freud felt that these hidden memories might upset the individual but if they were opened up and drained the individual could be

cured. This process of talking things over was called mental catharsis and was supposed to drain off any unhealthy emotion attached to the experience.

Somewhat later it was discovered that many of these infantile sex experiences were purely fantasies on the part of the patient and had never actually occurred. Freud himself realized that such was the case and felt the necessity of revising his theories. This he did by his concept of Infantile Sexuality in which he held that the sexual life of the individual was not something which began at the time of puberty, but was present from birth. According to Freud, the newborn baby was possessed of a diffuse type of sexuality not a replica of sex in the normal adult. The infant, according to Freud, was polymorphous perverse and had what Freud called a number of erogenous zones, the stimulation of which gave rise to sexual pleasure. The most important of these erogenous zones were lips and mouth, the buttocks, the breasts, the skin generally and the sex organs. The infant passed through a number of stages of development until he finally achieved the adult type of sexual development. Freud postulated a series of stages through which the normal individual passed, and felt that the neuroses represent either a failure to develop in

the proper manner or else that because of some upsetting experience the individual returned or regressed to a previous level of sexual development. Because the newborn child nursed at its mother's breast, there was developed an oral erotism, and Freud maintained that the infant derived sexual pleasure from nursing at the mother's breast. He also held that there was an attachment of the child to the parent for this reason and formulated his ideas of the Oedipus complex on this basis. He held that the small boy tended to fall in love with his mother and develop a hatred or jealousy of the father whom he recognized as a rival for the affections of the mother. This term is derived from Sophocles' famous tragedy "Oedipus Rex" in which a young man kills his father and marries his own mother. This love of the mother, however, was not felt by Freud to be the same as adult love. It was love at an oral level. This point should be emphasized because it has led to much misunderstanding. The importance of the fantasy life of the child was emphasized and it was held that even though certain things related by patients might never have occurred, the fact that they represented childhood fantasies was just as important as if they had actually occurred.

Freud then went on to develop the idea of the

libido, which he regarded as a form of sexual energy. This libido in the beginning was diffusely attached to the various parts of the body. Then it passed through stages where it was fixed at various levels such as an oral and anal level. The infant was at what Freud called a Narcissistic level in which his own body tended to be the love object upon which the libido was fixed. This term is derived from the legend of Narcissus who, looking into a pool of water, fell in love with his own image. From this the individual went on to a stage where the love object was an individual of the same sex, the so-called homosexual stage, then finally attained the level where the love object was an individual of the opposite sex, the heterosexual stage which, according to Freud, represents the final stage of development and the normal adult sex attitude. Freud pointed out that all sorts of difficulties might occur during this evolution of the sex life and that these difficulties might arise either on the basis of constitutional factors or as the result of environmental causes. Although admitting the great importance of the constitutional factors, Freud passed these by with the statement that he was interested in the mechanisms by which these conditions came about and did not care to inquire into the question of constitutional predisposition.

Freud emphasized the importance of the unconscious. He pointed out that many mental processes might go on without the individual's being aware of them and yet behavior might be due to them. This concept of the unconscious was one of the most important of Freud's early formulations and one which has received fairly universal acceptance. Freud next proceeded to alter his technique of analysis. He discarded hypnosis and substituted for it free association and dream analysis. The patient was seated or lay in a comfortable position where he could not see the analyst and allowed his thoughts and feelings to express themselves unhindered. Whatever came into his mind was mentioned and there was no conscious direction to his thinking. Freud felt that under such circumstances the repressed or hidden material in the mind would tend to come into consciousness, so that by this method one would discover what the hidden memories of the unconscious were that were upsetting the patient and causing his symptoms.

Freud also made an elaborate study of the dreams of his patients and evolved a theory of dreams which was quite new. According to Freud, when the individual went to sleep the mind relaxed and the thinking was not consciously directed.* There was a tendency, there-

fore, for the repressed material of the mind to come to the surface. However, if such ideas were to come up they would be tremendously upsetting and disturbing to the patient and would cause him to wake up, giving rise to the usual nightmare. In most dreams, the ideas from the unconscious came to the surface in a disguised and symbolic form so that they were not recognized and, therefore, did not disturb the individual. The purpose of the dream, therefore, was to preserve sleep. Every dream was the expression, in a symbolic form, of a repressed sex desire of an infantile nature. It was considered that a few dreams might be the obvious expression of a simple wish. The dream could be broken up into two parts, the manifest content and the latent content. The manifest content was the apparent meaning of the dream, what it was recognized as being by the patient. The latent content was the true meaning of the dream, what it really symbolized and expressed. The purpose of analysis was to discover this true meaning of the latent content of the dream which would explain the repressed complexes in the patient's life and make his neurosis understandable. For some time this method of treatment was emphasized and it was regarded as the means by which the patient was cured.

Later a third process was discussed which finally became regarded as the most important part of the treatment. This process was called transference. Very briefly the process of transference may be described as follows: The individual develops a neurosis because the libido is fixed in an unhealthy manner. During the process of analysis, the libido becomes freed from its unhealthy fixation and is fastened upon the person of the analyst. Finally as the process of analysis proceeds the libido is again freed from the person of the analyst and given some healthy and desirable outlet. The patient is then cured. The success of the analysis, therefore, depends largely on whether the analyst succeeds in getting a satisfactory transference to himself. Such a transference is commonly spoken of as a positive transference, whereas if the attitude of the patient toward the analyst is one of hate or antagonism it is spoken of as a negative transference.

It was also held that the patient tended to develop what was called a resistance to the whole process of analysis, and that this resistance might express itself in a number of different ways. The task of the analyst was to overcome the resistance. On the other hand, Freud held that this must not be done by suggestion or persuasion, that analysts

did not try to force anything upon the patient, but rather sought to hold up a mirror to him so that he might see himself as he really was. During the process of analysis, the patient was likely to identify the analyst with his father, mother or other persons toward whom there had been a marked emotional attitude, and he would tend to live over the various conflicts which had produced his trouble.

Freud not only applied these ideas to the neuroses but also to the normal individual and felt that the same mechanisms were at work. In his book, "The Psychopathology of Everyday Life," he pointed out how forgetting is frequently purposive and the mind tends to remember pleasant experiences but to forget unpleasant ones. He also showed how slips of the tongue might have the same sort of mechanisms behind them.

Another important contribution was the theory of ambivalency which originated with Breuer. It was felt that a person never wished completely to do a certain act. There was always a tendency to do the exact opposite. This consequent tendency to react in two diametrically opposite ways was called ambivalency.

The following description by Breuer will help to make this theory more 'clear.

“Even the normal individual feels, as it were, two souls in his breast, he fears an event and wishes it to come, as in the case of an operation, or the acceptance of a new position. Such a double feeling tone exists most frequently and is particularly drastic when it concerns persons whom one hates or fears and at the same time loves. This is especially the case when sex is involved, which in itself contains a powerful positive and almost equally powerful negative factor; the latter conditions, among other things, the feeling of shame and all sexual inhibitions as well as the negative valuation of sexual activity as sin, and the evaluation of chastity as a cardinal virtue.

“But such ambivalent feeling tones are the exception with the normal person. On the whole he makes a decision from the contradictory values; he loves less because of accompanying bad qualities, and hates less because of accompanying good qualities. But the abnormal person often cannot bring together these two tendencies; the hate and love manifest themselves side by side without the two affects weakening or even influencing each other in any way. He wishes his wife's death and when hallucinations picture it for him, he is desperate, but even then, besides crying he can at the same time laugh over it.”

Gradually the psychoanalytic theories expanded and became less and less a method for treating mental disease. It was held that psychoanalysis was the key by which one gained admission to an understanding of art, religion, and all the cultural forces in life. The application of psychoanalytic principles to education was stressed. At the same time, Freud gradually began to modify his theories so that they became rather more a system of philosophy than a method of understanding and treating mental disease.

Leaving out many of the points by which Freud reached his present theories, it may be stated that at the present time Freud has worked out a new formulation which has discarded some of his older ideas but which still continues to emphasize others.

In 1920, he wrote "Beyond the Pleasure Principle," and in 1923, "The Ego and the Id." This latter book sums up the present status of his views, which briefly are as follows: Although the concept of the unconscious was one of the earliest and most important contributions of psychoanalysis, Freud feels that the distinction between the unconscious and the conscious is not as clear as it was once felt to be. He also speaks of several different types of the unconscious and

concludes that psychoanalysis has advanced as far as possible by the use of this concept and must now acquire new ones.

He speaks of the mind in the beginning as being made up of the instincts and as being unconscious. This he calls the id. That portion of the id which is in contact with the outer world becomes modified to form the ego which comprises the official personality. The ego is partly conscious and partly unconscious. The id is completely unconscious. The id is composed of the instincts and demands immediate gratification. The ego, because of contact with the outside world, attempts to substitute the reality principle for the pleasure principle of the id.

Freud re-emphasizes the importance of the Oedipus complex and states that in dealing with this situation further development of the personality occurs which he calls the super-ego. The super-ego corresponds roughly to conscience. Freud feels that the development of the super-ego is determined by the way in which one deals with the Oedipus complex. He sees all social, moral and religious forces as having their origin in this manner. He further attempts to re-classify instincts.

In the beginning, Freud spoke of the libido as a form of energy which was sexual in char-

acter. He then developed the idea of the ego tendencies and spoke of the conflict between ego and libido strivings. Finally, he has come to rearrange instincts so that the ego and libido tendencies are grouped together instead of being opposed to each other. This instinct he calls the eros or sex instinct. The other instinct is the death instinct. The object of the eros or sex instinct is to increase the amount of living organic matter. It is an anabolic state. The death instinct, on the other hand, strives to decrease the amount of organic living matter. It represents the catabolic tendencies. Various other formulations such as the birth trauma and castration complex can scarcely be discussed in any brief article.

Freud has also devised a number of new terms which are of importance in any psychoanalytic discussion, but which cannot be gone into in this chapter. Some of the more simple and generally accepted psychoanalytic formulations are included in the discussion in the next two chapters.

CHAPTER VI

INSTINCTS AND EMOTIONS— THEIR RÔLE IN BEHAVIOR

THE inherited and physical factors in behavior have been discussed in previous chapters. As has been mentioned before the distinction between body and mind is an artificial one. All behavior is a reaction of the total organism, but for practical purposes one may wish to consider certain aspects of this total reaction so that behavior may be considered from the physiological and psychological aspect. James has insisted that every time an individual thinks there is a corresponding brain change. Physiology and anatomy, however, have not yet reached the stage of describing particular types of thinking in terms of their own specialty. Hence, when one reaches this level of the subject, the study must be considered from the psychological aspect. This does not mean that the physiological aspect does not exist, but that at the present state of human knowledge behavior cannot be further considered from that view-

point. Without reviewing various theories of human behavior which would take many volumes to discuss adequately, it may be pointed out that there has been a considerable change in the viewpoint of students on this subject during the past thirty years. The older introspective type of psychology in which one tried to understand human behavior by sitting in an armchair and introspecting has given way to many other methods of investigation which have yielded many valuable data. The biological viewpoint has been particularly stressed by modern students, whereas the older psychologists talked of man as being set apart from other types of animals, and saw little or no resemblances in the behavior of the two. The present tendency is to see a great similarity and to feel that many facts concerning human behavior can be understood by a knowledge of animal psychology. There was also the tendency to think of man as a reasoning being who acted because of intelligence, and who was guided by enlightened self-interest.

According to this idea, man used his intelligence to find out what was best for him to do, and then proceeded to do it. Little attention was paid to the instincts which were considered the basis of animal behavior but of slight importance in a study of man. Emotions were also con-

sidered, but were not felt to be of great importance. James was one of the first to rebel against this view, pointing out that man had as many, if not more, instincts than the animal. Furthermore, students were confronted with the fact that man frequently does not react because of enlightened self-interest, that he is continually doing things that are not to his best interests to do, and doing them consciously. Probably every person is quite aware of the fact that he has done certain things, knowing that enlightened self-interest demanded that he behave otherwise.

The present trend in psychology has been to go back to the instincts and emotions, and to try to determine more adequately their rôle in human behavior. Such studies have emphasized the enormous importance of instincts and emotions, and have shown that they are the driving forces back of all behavior. There is, however, a marked tendency to drop the terms "instinct" and "emotion" and to substitute the term "drive" as being more satisfactory. Such studies have shown how little intelligence and reason have to do with a great deal of behavior, and how the individual, himself, is frequently unaware of the causes back of his acts. This is demonstrated by the fact that individuals so frequently give reasons for their behavior, which on careful study

prove to be incorrect. All this leads to the conclusion that the motivation of human behavior is frequently unknown to the individual, who often imagines that he behaves as he does because of reasons which do not exist.

Several writers have compared man to an automobile, letting the instincts and emotions represent the engine, and reason and intelligence the steering mechanism and operating controls. The engine obviously furnishes the power or driving force that moves the car, and the stronger and more powerful the engine, the faster the car can go. If properly guided it may cover a great many miles at a very high rate of speed, but improperly guided and directed, a powerful engine becomes a danger. In the same way instincts and emotions may be regarded as the driving forces back of our behavior. The individual with powerful instinctual and emotional drives has the possibility of accomplishing a great deal in life, or of coming to a severe smash-up, so it cannot be said that strong instincts or emotions are necessarily good or bad in themselves, for it depends on how they are directed, and the intelligent control and direction of these drives is perhaps the most important problem of human behavior. In order to do this, it is first necessary to understand these forces. To many such a study

still appears rather unpleasant and disgusting. Again returning to the comparison of the individual to the automobile, it may be pointed out that when driving about in a luxurious car one may notice the silver trimmings, the rich upholstery, the deep cushions, and the general clean and beautiful appearance of the car. If, however, something goes wrong with the car, the first thing that must be done is to lift the hood and start examining the dirty, oily engine. This may also seem unpleasant and disgusting to some, but it is necessary if one is to understand why the car is not running smoothly. So when an individual becomes maladjusted in his life, one of the first things to be done is to study his instincts and emotions. This may not be pleasant, and may reveal a good deal of unpleasant and rather disgusting material, but it is necessary to do this if one is to find the explanation of the maladjustment.

The question will probably be asked, "What is the difference between an instinct and an emotion?" As the terms are used in the present discussion there is very little distinction. Probably it is well to consider the emotion as one aspect of an instinctive process. After doing that the terms may be used rather indiscriminately. In this respect McDougall's concept of the instinct is

being followed. McDougall has pointed out that an instinct is an inherited or innate psychophysical tendency to perceive and pay attention to objects of a particular kind, to experience a particular type of emotion upon perceiving the object and to act in regard to it in a particular way. This integration of instincts and emotions as a part of the same process is the one which will be followed throughout the discussion. When one studies the instinctive processes it becomes apparent that whenever an instinct is stimulated, an emotion is also aroused. It also appears that when an instinct is carried out to its normal motor expression (in other words when an individual reacts as the instinct would have him do) there occurs a release of emotional tension, and a certain feeling of satisfaction and harmony, whereas the thwarting of an instinct tends to produce an increased tension within the organism. The emotion connected with that instinct is increased and it then seeks to express itself in some vicarious manner.

This can be made clear by a simple illustration. If I am walking down the street and a man bumps into me, he arouses what we might call my instinct of pugnacity and the emotion of anger. The appropriate motor response to this

is to attack the individual. If I do this and am victorious, the emotion of anger will subside because I have given it an appropriate outlet. On the other hand, suppose I bump into an individual who is six feet tall and weighs two hundred pounds and he demands an apology, I may make it. Having been unable to give this emotion its appropriate motor expression, I then become violently angry and seek for some outlet. If I go home and find that my wife has bought a new hat, my anger may become transferred to this incident, and I at once demand the reason for her buying a new hat when she already has several, reminding her that last month's bills are not all paid, and adding a few other sarcastic remarks. The reason why I scold my wife is not because she bought a new hat, but because my anger against the individual who bumped against me on the street has been thwarted, and emotion denied its appropriate outlet seeks to express itself in some vicarious manner. It might easily be any other incident which happened to occur; the emotion of anger would fasten upon that quite as well. Thus it may be seen that every instinct and emotion tries to express itself in some manner. If thwarted, the tension increases and the individual continues to seek for some way of

expressing it, although this is not ordinarily done at a conscious level, and the individual, himself, not only does not understand why he is doing it, but would probably deny that such was the case.

CHAPTER VII

METHODS OF DEALING WITH MENTAL CONFLICT

IT was shown in the last chapter how instincts and emotions are the driving forces back of all our behavior, how instincts and emotions tend to seek some form of motor expression, and that if denied their appropriate expression they strive to express themselves in some vicarious manner.

It is obvious that in every individual there are a large number of opposing tendencies being constantly stimulated. It is equally obvious that all of these tendencies cannot express themselves adequately, and that many of these tendencies are in opposition to each other. This illustrates what is meant by the term mental conflict. A great deal has been written about mental conflict, much of it tending to give the impression that it is an abnormal, unhealthy and undesirable process. Mental conflict is a perfectly natural and normal process. It is going on constantly within every individual. There are times when certain specific mental conflicts lead to difficulties. There

are also times when an individual resorts to unhealthy and undesirable ways of dealing with mental conflict. Some mental conflicts are so severe that the individual finds himself unable to cope with them. Mental conflict in itself is not abnormal or necessarily undesirable. In the formation of character it is necessary that one acquire a certain control over his emotional life, and it is desirable that he secure as high a degree of control as possible over his emotions and instincts early in life. One cannot adjust to life in any satisfactory manner without exercising a considerable degree of such control.

How may one deal with mental conflict? In the first place, if the opposing forces are of unequal strength, if one tendency is very strong and one very weak, comparatively little mental conflict occurs and the greater tendency wins. For example: If I saw a person drop a one cent piece, I would pick it up and hand it back to him at once. There is perhaps an opposing tendency to take the money and keep it myself, but after all one cannot buy very much with one cent, perhaps someone has seen me pick it up, and anyway it is not worth while being dishonest for only one cent. Hence there is very little conflict and the money is given back at once. On the other hand, suppose when out on a lonely country

road I find a large roll of bills with no identifying material, and no one in sight, there will be a much greater degree of conflict, the tendency to keep this money will be very much greater than in the case of the one cent piece. In this latter case the two forces are of more nearly equal strength than in the first case. Hence the conflict becomes more intense and it is more difficult for either force to triumph.

Theoretically, if two tendencies are of the same strength, neither will conquer. The individual will stand around or rush about in a helpless manner, giving vent to the emotion which cannot express itself in appropriate action. The classical illustration of this is the case of the starving donkey who is half-way between two bales of straw and thus has a conflict in which both sides are exactly of equal strength. The result is that neither side can conquer, and so he dies of starvation.

The various methods of dealing with mental conflict are discussed by Bernard Hart in his extremely interesting book "The Psychology of Insanity." According to Hart, the ideal method of dealing with conflict is at the conscious level where an individual carefully considers both sides, and in a rational manner settles on the best course of action. This is what he calls conscious

control. On the other hand, it must be recognized that all mental conflicts do not occur at a conscious level. The individual, himself, is frequently unaware of the forces which are striving against each other. Such conflict can be said to occur at the subconscious or unconscious level. One of the most valuable contributions of Freud has been his concept of the unconscious and his idea that many mental processes can take place without the individual's being aware of them.

Janet has given us a very interesting account of one method of dealing with mental conflict which he calls dissociation. The case which he cites has been widely quoted, so that it has become the classical example of dissociation. Irene was a poor French peasant girl, who lived alone with her mother to whom she was intensely devoted. Her mother was taken sick. Irene nursed her most faithfully, but finally the mother died. Then it was noted that Irene seemed to have very little reaction to this whole situation, but continued her work much as usual. However, it was noticed that she would sometimes stop her work, go over to the bed where her mother had lain during her final sickness, re-enact the scene of her mother's last illness, and then suddenly resume her former occupation with no memory of what she had just been doing. Janet stated that

the death of the mother was a situation which Irene could not face, and that she dealt with it by splitting off this whole incident from the main stream of consciousness. This process he called dissociation. Janet felt that dissociation was the essential phenomenon back of a great deal of mental disease, and that many cases of odd and peculiar behavior could be explained in this manner.

The psychoanalytical group have utilized a somewhat similar illustration in the theory of repression, and have dealt with this concept in a rather more dynamic fashion.

Repression is the crowding out of consciousness some thought or tendency which is unpleasant to the official personality. When a set of ideas with an emotional tone has been repressed, it is referred to as a complex. Repression or dissociation is a very common method of dealing with mental conflict, and it is one which works in the majority of cases. It is important, however, to remember that although these ideas or tendencies or feelings are crowded out of consciousness they still continue to exist and still continue to influence behavior. Since the official personality will not allow a certain tendency to express itself in consciousness, that tendency may be repressed. Then, in order to express itself, it must appear in

some disguised manner so that the official personality does not recognize it. Every individual has repressed a great many tendencies which, however, still continue to influence his behavior. Since these tendencies come out in a disguised form and are not recognized by the individual, it follows that the individual often is unaware of the real causes of his behavior. For example, an individual may have a very cruel streak in his nature and delight in inflicting pain and suffering on others. Society objects to that sort of behavior, and his official personality may take this same attitude. Therefore, this tendency is repressed, but although repressed it seeks some sort of expression and is likely to come back into consciousness in a disguised manner which the individual does not recognize, and hence does not object to. Such an individual might, for example, develop a great deal of interest in the subject of cruelty to animals, and might become an active supporter of the Anti-vivisection Society, spending a great deal of his time looking for examples of cruel treatment of animals. In such a case he might derive a vicarious satisfaction from finding such examples of cruelty. This does not mean that every person who objects to cruelty to animals does so for this same reason, but merely that in some cases that is the explana-

tion of this type of behavior. It is interesting also that the individual who wishes to censor material and decide what is proper for others to see and hear and do, is frequently just that type of individual. Such a person often goes to all the questionable shows and reads all the doubtful books in order to see if there is anything improper in them, so that he may see to it that other people do not see or read these things. Such an individual never admits that he, himself, will be harmed by doing this. Anthony Comstock insisted that his personality was not unfavorably affected by the large amount of indecent and improper material he was compelled to examine. It is even said that he kept a collection of that material which he sometimes showed to his friends in order to illustrate what wonderful work he was doing.

In other words, when an individual feels that he is viewing certain things from perfectly praiseworthy motives, he may frequently delude himself into thinking that the forces back of that tendency are not really there. All this illustrates how repressed tendencies may come forth in all sorts of more or less disguised behavior on the part of the individual, but sufficiently disguised to the individual, himself, so that he escapes any feeling of mental conflict. This indirect expres-

sion of the conflict, as Hart calls it, is very important to understand, and must be taken into consideration in any study of personality or behavior. It is now evident that it is no longer possible simply to ask an individual why he behaves the way he does, because, as has been shown, the reason he will give is often an incorrect one.

Another way of dealing with mental conflict is to keep the two opposing tendencies away from each other so that they are never in consciousness at the same time, and therefore never clash. Since both are given free expression at different times, the conflict is to some extent solved and the tension is released.

The hypocrite is an excellent example of this. Such a man goes to church every Sunday, sings all the hymns and puts a small amount in the contribution box, thus giving his better nature free expression. He then goes home and puts this side of his nature in cold storage for the next six days, and gives his business personality a chance to express itself. He proceeds to short-change his customers and carry out other dishonest business methods. This state of things is recognized by some who say quite frankly, "You can't mix religion and business; you've got to keep them apart."

Mental conflict may also be dealt with by

rationalization. By this is meant the ascribing of a false reason to behavior. The reason given is one which will be satisfactory and will save the individual's own feelings of self-respect. The classical example of rationalization is the fox and the grapes. When the fox found he could not get the grapes, he insisted that he did not want them anyway, that they were probably sour. This represents a very common way of dealing with life. The student who receives poor grades in a subject is likely to ascribe his failure to the defects of the instructor, to unfair examinations, improper grading of his own paper or some similar reason, when the real cause is his own failure to study properly or some defect in his intelligence. Or he may react by denying the value of grades and by emphasizing the value of what is learned outside the classroom. Thus it is seen that rationalization tends to make life more satisfactory and to preserve one's own feeling of self-respect. It is a common method to use, but is not one which is entirely satisfactory. However, it serves as a way of meeting the situation and, at the same time, preserving one's feeling of self-respect.

Still another way of dealing with mental conflict is by projection. This means that one projects or transfers on to others the undesirable

qualities which he himself has. So a person who has a strong tendency to be dishonest may react to it by questioning the honesty of everyone associated with him. This method also makes life more endurable by saving one's feeling of self-respect. This type of reaction occurs very commonly in cases of mental disease, when patients project all sorts of conditions on to the outside world instead of seeing these conditions within themselves. For example: A patient may complain that there is conflict in the world, that there are all sorts of vague and menacing forces outside, that the world is threatened and may even come to an end. This only means that he, himself, is full of all sorts of conflicts, and is more or less afraid that he is about to come to his own end.

Fantasy represents another way of dealing with mental conflict. If the world of reality fails to yield the conditions desired, the individual may construct a world of fantasy in which these desires are satisfied. A certain amount of fantasy is a perfectly normal and healthy thing, and most persons have some fantasy life. Fantasy becomes unhealthy and undesirable when it becomes largely an end in itself, when it no longer serves as a stimulus to action, and when one commences

to prefer the pleasures of fantasy to the pleasures of reality.

As an example of a borderline condition, there might be mentioned the case of a junior in college who had not been doing well in his studies and who gradually became more seclusive, so that he was finally advised to consult a psychiatrist. It had been noted that he did not attend the junior prom which had occurred a few days before and which was the most important social event of the year. On going over the situation with him it was found that he was a very sensitive boy, who had not been able to mix well with others, that he had always greatly desired to be popular and occupy the center of the stage, but that he had failed to do so. As a result of all this, he had turned into himself and constructed a fantasy life in which he proceeded to live. On the night of the junior prom, instead of going to the dance, he went to his room, turned down the light, sat down in a chair and commenced to imagine himself leading the grand march with the most beautiful girl there. After this he saw himself as the most popular man at the dance with all the pretty girls clamoring to be introduced to him. He imagined that he was the center of all the fun and activity, and that everyone was

crowding about him to listen to the brilliant remarks that he was making.

This case illustrates an indulgence in fantasy which has gone beyond the limits of health. It illustrates how an individual may deal with the difficulties in life by refuge to fantasy and may allow the pleasures of fantasy to exceed those of the world of reality.

Certain types of mental disease appear to be the result of the turning away of an individual from the world of reality, of his constructing a world of fantasy which solves his problems, and of his tending to live in it.

As an example of this type of condition may be mentioned the case of a young instructor in a university, who because of his brilliant scholarship had been chosen to assist in an important piece of research. Suddenly he broke down and was brought to the hospital with a very elaborate set of delusions. When the situation was analyzed the mechanism was essentially as follows: The young man, whom we shall call Mr. A., had been brought up by poor parents, and by a great deal of effort on his part had achieved a brilliant record and finally secured the appointment which seemed to indicate a brilliant future for him. After working for a little over a year and doing very satisfactory work, he went home

for the Christmas holidays to visit his fiancée.

When he got there he discovered that she had her trousseau all ready and insisted that they be married at once. He replied that his salary was not enough to support both of them. Her answer was that they must be married then or not at all. He was very much upset over this situation and telegraphed to see if there was any chance of getting his salary increased. The professor at the head of his department not understanding the situation sent back a rather sarcastic reply, informing him that he knew what his salary was and that there was no possibility of increasing it. The reply also intimated that the young man was trying to hold up the university for more salary because he had partially completed an important piece of work. This produced a severe upset and the patient came back to college, having broken off definitely with his fiancée and feeling that he had lost the respect of his professor. His roommate, Mr. B., who was another instructor, was the son of a multimillionaire of very distinguished family, who had everything in the way of wealth and position which the patient lacked. The patient came back feeling that life was not worth living and that he could no longer endure things as they were. The result was that he constructed a fantasy world which was essentially a

solution to his problems. When brought to the hospital he insisted that he was Mr. B., not Mr. A., that Mr. A. was dead, having died of a broken heart. When it was pointed out to him that he had been brought up in a mid-Western state as the son of poor parents, he replied that this was true, but his real parents Mr. and Mrs. B. had done this in order that he might not become a snob, and that he should not suffer from the further defects of boys brought up in wealthy families. He insisted that he was to marry his former fiancée. In this mental breakdown, it is apparent how the delusions represent the solution of a problem with which the patient was inadequate to deal, and how in his fantasy life the things which he really desired, marriage, wealth and family position, were given to him.

Identification represents still another method of solving one's mental conflicts. As the term indicates, one may identify himself with some object or person. According to Freud this is a very common process which is going on in all normal individuals from early childhood. However, Freud claims that in practically all cases, identification is preceded by what he calls object cathexis. By this he means that an object or person is endowed with a particular emotional value. A simple example of this might be repre-

sented as follows: A small boy hears of Lindbergh flying across the ocean. Immediately, Lindbergh becomes a person who has a special emotional value to him. All hero worship would be a further example of this tendency. The next thing that may happen is that the small boy is discovered out in the back yard arranging some boxes in the shape of an aeroplane and announcing that he is Lindbergh and is about to fly over the Atlantic. In other words, he now identifies himself with Lindbergh.

Another amusing result of Lindbergh's transatlantic flight was the marked decrease in the use of hair oil by young men. When it was announced by the newspapers that Lindbergh did not smooth his hair down with the aid of an oily preparation, the popularity of these preparations was immediately affected. All this, of course, was on the basis of such individuals identifying themselves with Lindbergh.

Such identification may have a very desirable and beneficial effect if a suitable person is chosen, and may have exactly the opposite effect if an undesirable person is selected.

Identification is a mechanism which also occurs in mental disease. The example cited under fantasy would also serve as an example of identification, where a young man seeks to identify

himself with another individual who has the particular attributes which he himself lacks.

Mental conflict may be transformed into physical symptoms and a solution reached in this manner. This process is known as conversion. The development of a chronic invalid reaction may enable a woman to dominate the household and thereby alleviate her feelings of inferiority. The development of a headache may secure sympathy, attention or prestige. Such situations are of very common occurrence in everyday life. When the symptoms become more striking the condition is recognized as being more abnormal and the term hysteria or conversion-hysteria is frequently applied to it.

Such a condition was illustrated very strikingly in the case of an eighteen-year-old girl who suddenly developed a loss of speech, with her head pulled over on her left shoulder, and a loss of sensation in certain parts of her body. A study of this case showed that the girl had, without her parents' knowledge or consent, gone out for a ride with a young man. He had made certain advances which she resented, a struggle had ensued in which he had pulled her head over toward him. Although successful in repulsing his advances, when she arrived home she realized that her mother would ask her where she

had been and that she was accustomed to tell her mother everything. She knew that she would be unable to keep from telling her mother what had happened and dreaded doing so very much since the mother was exceedingly strict and puritanical. As she entered the house she was surprised to discover that she had lost her voice and was unable to talk. A little later her head was pulled over on her left shoulder as it had been during the struggle and those parts of her body which had been touched by the young man in the struggle became anaesthetic. This condition lasted for a period of over two years in which she was a patient at various hospitals.

It is quite obvious how in this case emotion was converted into bodily symptoms and how this to a certain degree solved her conflict, since being unable to talk she could not relate the occurrence to her mother.

Sublimation represents a healthy and desirable method of dealing with mental conflict. In sublimation certain instinctive tendencies which cannot be allowed free and natural expression are turned into socially desirable channels, and their energy utilized in that fashion. For example, an unmarried woman may adopt a child and thus give a socially desirable outlet to her maternal tendency.

The methods cited above illustrate some of the more common and ordinary ways by which an individual deals with the problems of life and endeavors to secure some sort of solution. It is evident that some are frequently unhealthy whereas others are usually satisfactory. But it is well to keep in mind that the value of a particular method may depend upon the makeup of the individual and the particular circumstances of the situation. The problem is to see whether in a given case the method that an individual is using is working in a satisfactory manner. If not, it is desirable to deal with it by some other method. In general, it may be said that the frank facing of a situation, with a decision based on the conscious consideration of all the factors involved, represents the best method of dealing with mental conflict.

CHAPTER VIII

PROBLEMS IN CHILD TRAINING

IN considering the problem of mental hygiene from the standpoint of the child, it is well to realize that no two children are exactly alike, either physically or mentally. The child has a personality and an individuality from the very beginning, and this must be taken into consideration in any plan of mental hygiene for him. The child is not a piece of putty molded entirely to his environment. Yet on the other hand, it should be recognized that the environment has an enormous effect in determining the child's behavior. Because of the fact that no two children are exactly alike, it is exceedingly difficult to lay down a set of general rules with regard to mental hygiene for children. It would be much easier and simpler if one could simply say, "Given such a condition, do thus, and it will always work." Unfortunately, the individuality of the child needs to be taken into consideration, and although it is possible to lay down certain general rules and guiding principles, every child has to

be treated as a special personality. What works with one child fails with another.

At the time of birth, the child is a very helpless organism—crying is about the only means he has of expressing his needs. He is not, however, simply a machine—he is an adaptive mechanism, and in the process of development some hitch in the evolution of some particular function may occur. We sometimes make the mistake of thinking that the child, both physically and mentally, is a replica of the adult, only on a smaller scale, but this is not the case; the small child is not an imitation or small model of the adult. He thinks in a different way from the adult, his standard of values is entirely different from that of the adult, and however much we would like to think of him as the ideal infant which he is represented as being in many pieces of fiction, such as Barrie's "Peter Pan," we find that the child actually is quite different from this.

As an illustration of the difference in values may be cited the following story. A young boy had a dog that he called Laddie, and one day Laddie got in front of an automobile with very disastrous results. The mother was much concerned and when the boy came home to supper that night, she took him to one side and ex-

plained to him that Laddie had been hit by an automobile and had been killed. The boy didn't seem as much concerned as she had expected him to be. He ate his supper quietly in the kitchen, went to bed, and just as he was getting into bed he asked for Laddie. His mother said, "Why, I told you he had been struck by an automobile and had been killed." The boy burst into tears and exclaimed, "I thought you said Daddy." There is enough truth in this story to make us realize that the child does not always have the ideal attitude that we often assume he does have, and it is much better if we try to appreciate how the child really thinks, how he really feels, rather than to represent him as we would like him to be.

In the small infant, behavior is determined largely by immediate satisfaction. The child tends to react favorably to stimuli which produce pleasure, and unfavorably to those that produce unhappiness or pain. There is often a great variation in this demand for what one might call organic satisfaction. Some children show a very great desire for all sorts of stimuli which give rise to organic types of pleasure, and are very fond of being petted and cuddled, while others seem to get no pleasure from such situations. The persistence which a child shows in his efforts to

secure satisfaction is quite variable. Some children seem to be very easily influenced, while others show a surprising degree of resistance and stubbornness in securing what they want. Undoubtedly both of these two qualities just mentioned are largely inborn constitutional traits which vary tremendously in different children.

In considering the whole problem of child training, we should bear in mind that the first five years are of the greatest importance. The child probably learns more in this period than in any other period of life, and tends to lay down largely the reaction patterns which govern the rest of his life, so that these five years determine to a great extent the formation of his character and personality. For that reason, we stress the importance of the manner with which we deal with the small child.

The first point is to decide what is the purpose of child training. There must be a clear realization of the goal which we are seeking. In general it may be said that our ultimate purpose is to train the child for the responsibilities of adult life, to teach him to be industrious, honest, intelligent, capable of standing on his own feet, and able to make his own decisions and his own way in the world. It can be seen then that the problem is not how easy it can be made for either

child or parent during the period of childhood, but whether the ultimate effect of a certain procedure will be desirable for the child. In any course of training, in any plan for the child's education, one should think in terms of future results rather than immediate benefits. Certain procedures may solve the situation temporarily, but ultimately they may have the opposite effect.

One of the first points that we come across in child training is the fact that the child may learn to adapt or utilize some body mechanism for purely pleasure purposes. Take the nutritive instinct for example: The normal, healthy child derives pleasure and satisfaction from taking his food, and the nutritive instinct is an adaptive mechanism fulfilling an important purpose—the nourishing of the child. However, the child may discover that this mechanism can be used for purely pleasurable purposes, and he may find that by putting his thumb in his mouth he derives a certain degree of pleasure and satisfaction. In other words, this nutritive instinct which normally is utilized for the purpose of securing food and nourishing the child, is utilized purely as a means of securing pleasure, and so one important habit that has to be dealt with frequently in the child is the habit of thumb-sucking. The child may utilize any other instinct or tendency in the

same manner. Sex, for example, may be utilized in practically the same way, and instead of serving its ordinary biological function may become utilized by the child solely as a means of pleasure. Such uses of different systems have, if carried to any great extent, a certain harmful effect upon the child, though if carried only to a slight degree their effect is unimportant. But it is rather the punishments, the threats, the emotional scenes which the parents may employ in endeavoring to break the child of habits of this type that may produce extreme consequences. These may produce certain feelings of inferiority, certain feelings of guilt, certain feelings of inadequacy, and may, if improperly handled, result in definitely crippling the future life of the child.

When we come to the whole problem of nutrition, it is apparent that nutrition is not purely a question of calories and vitamins, it may be a question of emotions as well.

A series of experiments in one Children's Hospital showed that babies who were picked up and played with a certain amount every day gained in weight better than those who were never played with, showing that emotional factors may play an important part in the child's nutrition. As has been shown previously, the

effect of unpleasant emotion or extreme excitement or tension is to prevent the normal digestion of food. Therefore, the problem of nutrition in the child may depend quite a bit on seeing that the child is in as pleasant a state of mind as possible when he is being fed. The food habits of a child are of a great deal of importance and often form one of the earliest indications of the child's personality and the difficulties into which he is likely to get.

A great many children, at a very early age, develop very finicky habits with regard to food. They have extreme likes and dislikes. What is the practical way of dealing with such a problem? Undoubtedly the best way is to train the child, from the beginning, to eat all types and kinds of food given to him. At times mothers will relate, with a certain feeling of pride, that their child won't eat certain foods, that he is a very determined little fellow and just won't do it. It is apparent that the mother is really gloating over the child's ability to dominate and control her. This is extremely unfortunate for the child. He should, from the very start, be made to eat the food that is set before him, and be trained in healthy habits of eating. There are a number of devices that one can utilize under such circumstances. One may often distract the

child's attention and get a mouthful of the undesired food down before he realizes what you have done. Many times a child will then go on and eat the rest. It is a question of getting that first mouthful forced down. Or again you may mix some of the undesired food with something that he is very fond of so that he becomes accustomed to taking very small amounts of it in that fashion, and gradually you increase the amount. Or you may even just stand there with the spoon and shovel it back as fast as he spits it out. Under certain circumstances this seems the only way of dealing with the problem, and although probably two-thirds of the food will be lost, still you have gained a moral victory and the child will usually give in. Another method is simply to starve the child until he eats what is set before him. For example: The child may refuse to eat any solid food. In one such case, the child went three days without eating before he would take any solid food. Then he proceeded to eat, and ate quite well for a few days, when he tried another hunger strike. This was not a serious one, and as soon as he realized he would get nowhere, he resumed eating solid food. Most mothers are unable to watch their child go through a prolonged hunger strike of three days, but it may be

a necessary and very desirable measure in certain cases.

All this may seem to contradict what has been said previously concerning the harmful effects of unpleasant emotions and the importance of a pleasant atmosphere at meals, but it may be necessary to have a brief period of emotional upset for the very small child in order to secure desirable food habits.

It is always better to establish desirable habits at the earliest possible moment, and under most circumstances nothing is gained by delay. There are, of course, certain phases in a child's development, certain attitudes that he passes through, and while he is passing through that attitude the parents should pay as little attention to it as possible, knowing that that is merely a phase which will be succeeded by some other phase. For example: The small child repeats all the improper words he hears. If little or no attention is paid to this, the child quickly forgets the words and this phase of development soon passes. If, however, a marked emotional reaction occurs on the part of the parents it tends to fix these words in the child's mind. But habits of the sort mentioned are very fundamental conditions which need immediate treatment, and the time

to train a child with regard to food habits is at the very beginning, before he develops unhealthy and undesirable habits.

The same thing is true with regard to habits of sleep. The child should have regular hours for sleep, a regular hour for going to bed; he should be required to go at that time, and he should be expected to go to sleep as soon as he goes to bed. He should not be allowed to get up continually and to invent all sorts of excuses for getting further attention—something that children almost invariably do.

The small child often wakes up out of his sleep and cries out. This attracts the mother, the child is picked up, petted, and a little later he is put back to bed. This tends frequently to form an association in the child's mind, and to establish a condition reflex. To him crying when he is in bed means being picked up. Therefore, whenever he wakes up, wants attention, or is a little bored with life in general, he proceeds to cry. The intelligent child soon realizes that he is able to dominate conditions to quite an extent in that fashion. Therefore, a child should not be picked up and petted in that fashion during his sleep periods. Obviously if he needs to be changed or something of that sort, this should be attended to, but sleep periods should not be made

a time for petting and playing with the child.

The small child often sleeps in the same room with his parents. By the age of two he should have a room by himself; quite possibly he should have it before that period, but certainly by the time he is two. When this move is made, the child frequently objects to it. He cries out in his sleep and apparently has nightmares; there is some evidence of fear, and the mother is likely to bring him back to the parental bedroom because he makes such a fuss at being in a room by himself. Here again it is better to start early with the child rather than late. As soon as possible it is desirable for the child to have a room by himself, and to become accustomed to sleeping alone.

The child often develops a certain conflict over his demands for the attention and affection of his parents. A very small child usually gets the major share of affection of the household. As he gets a little older, and particularly if there should be another child, he may find that he is getting much less of this attention and affection, and, therefore, he resorts to any means of securing this. A great many times the child utilizes all sorts of methods in order to dominate the household.

Temper tantrums are one obvious method employed. The child may develop a tantrum when-

ever he is scolded, punished or whenever he can't get his own way. The mother gives in to him because he makes such a terrible scene, and she can't bear to see him carrying on in that fashion, or else because the family live in an apartment house and are afraid of what the neighbors may say.

An example of this was the case of a small girl of seven, who was intimidating her father and mother, dominating the whole household and getting her own way because, whenever they tried to punish her or make her behave, she would start screaming at the top of her lungs, "Please don't beat me, please don't beat me," so that the neighbors had come down to see what the matter was, and had threatened to call in the Society for the Prevention of Cruelty to Children. In desperation the parents asked a psychiatrist to come over and see the child, hoping that he might be able to help them. The child was a very precocious, very likable little girl who was thoroughly enjoying herself by means of the tantrums. The parents were told that they must start in demanding obedience of the child at once, and it was explained to the child that her parents were going to do so, and that she would get nowhere by her usual methods. The parents were told, in the child's presence, to explain the

whole situation to the neighbors, and that if the latter should call in the Society for the Prevention of Cruelty to Children, the physician would be very glad to testify for them. This method of dealing with the situation proved satisfactory.

The child may also endeavor to dominate his environment by resorting to invalidism of some type or other. He may say that he has a headache when given some unpleasant task to perform or he may insist that his stomach does not feel right when he is expected to eat some food he does not wish. Often such invalidism appears early in the morning just about the time the child should go to school, and after school-time has well passed, the child improves remarkably and feels quite able to go outdoors and play. Under such circumstances it is not always easy to know what to do, but when a child complains of headache, for example, and it is strongly suspected that he is "putting it on," the best method of treatment is to assume that the child has a severe headache, and to explain to him that since he has a severe headache he had better undress and go to bed. The curtain will be pulled down, the room darkened, everything must be quiet, he mustn't read of course, because that is very bad for the eyes; perhaps his headache is due to his stomach, so he is given a nice dose of castor oil to alleviate

the condition. Now if the child actually has a headache he has received suitable treatment, if he has not, he usually decides that he would rather be in school than lying alone in a darkened room and taking castor oil.

So the child, at a very early age, is likely to make attempts of this sort to dominate his environment, to try to control things about him. The sooner he learns that he is one unit of society, that he is a member of an organization which is greater than he is, the better it is for him. He must learn to adapt himself and to conform to the demands of group life, and he cannot learn this at too early an age.

The only child is particularly predisposed to this sort of difficulty because, having no playmates, he does not learn at an early age the healthy give and take of group life. Being the only child in the family, he does not have to share the attention and affection of his parents with others. His parents doubtless feel that the universe revolves about the child and may be unwise enough to allow him to see that they think so, and the child himself finds this a very agreeable thought. So it is important that the only child should receive special treatment whereby he is thrown with other children, and is made to real-

ize that there are others in the world who are also entitled to consideration and attention.

The child commonly develops an affectionate attitude toward his parents. The degree of this affection is extremely variable, and under certain conditions and in certain families it may change from an attitude of affection to one of hate, resentment or fear. It is not easy to say what is the proper amount of affection that the child should have for his parents, but we all recognize, I think, that a child may have too much affection for his parents, and the parents too much affection for the child, so that this relationship becomes a distinctly unhealthy one, and one which, as times goes on, hinders rather than helps the child.

The problem of discipline is also one of those problems about which one can talk endlessly and still get no very specific rules. It is one of those cases where moderation and judgment are the important points, where too much or too little is distinctly harmful and where every child is very much a law unto himself. The method of discipline which works with one child is of no value with another. One child responds quite well to moral suasion while another child responds equally well to corporal punishment. There are

those who object to corporal punishment as a relic of barbarism, who insist that it should never be used on a child. It is well to remember that there are times when words can be infinitely more cruel to a child than any corporal punishment that could be administered, and parents who regard themselves as too kind-hearted to whip a child may hurt that child infinitely worse with what they say and do than if they had given the child a sound whipping. No matter how intelligent one is and how much time one spends with the child, he is probably never satisfied with this whole problem of discipline. I have never yet seen an intelligent parent who was completely satisfied with his discipline over his children, who did not admit that he made a great many mistakes and would probably continue to make more mistakes. Fortunately the average child is able to withstand a certain percentage of mistakes on the part of the parent, and manages to get along in spite of them.

In general, one feels that a system of rewards is a rather better method than a system of punishments. It is a positive, rather than a negative way of dealing with behavior, giving a reward for doing good rather than punishment for doing wrong. Of course this can be carried to an absurd extreme, where the child will do nothing unless

he receives a reward for it. Under those circumstances, it may be wise to turn back for a time to punishment. But usually the system of rewards for good behavior is a very sound method.

Ideally, one would like to avoid all punishments. Practically, it is not possible and we can say that at times children require punishment. It is important to keep in mind, however, that one should always try to punish a child in a way that will benefit him. One should not punish a child because he is bad, but because it is expected that the punishment will cause an improvement in the child's behavior. If it is evident that it will not produce such an improvement, it should not be given. Punishment should not be employed to relieve the emotional tension or pent-up anger of the parent or teacher.

Punishment should be prompt and inevitable. If delayed, undesirable emotional tension may be produced in the child. There is also the possibility that it may be avoided or forgotten. Criminologists are pointing out that certain and prompt punishment is much more important than severity of punishment.

Punishment should be reasonable. Resentment is invariably aroused by excessive or unjust punishments.

In dealing with the child, it is very important

not to break his will. The child is going to need all the will power possible, he is going to need confidence and self-respect, so in one's disciplining and training of the child do not do things that will break down his feeling of self-respect and confidence in himself. His will power and determination to go through with things are very excellent qualities, and it is a question of re-directing them rather than getting rid of them. Punishments that humiliate him and take away his feeling of self-respect should never be used.

One should avoid lying to a child. There is no condition under which one should lie to a child. This does not mean that one must always volunteer information to him, nor does it mean that one should not evade certain situations, but if the child finds out, as he probably will, that his parents are lying to him, he loses all confidence in them, he loses his respect for them, and their control has to some extent disappeared as soon as the child discovers their deceit.

Neither is it desirable to scare the small child; frightening him with tales of the bogey man, etc., are very poor methods of disciplining a child, and lead to very extreme results in some cases. In some cases children have gotten into extreme states of terror by being frightened by the parent or grandparent over some slight misdeed. Such

results were shown by a little girl of six who developed a hysterical paralysis of the arm and an inability to eat, after her grandmother, who was a very religious woman, had caught her lying and had told her that it was a terrible thing to lie, adding that there was a big black devil hiding nearby, and that he caught little girls who lied and carried them down into Hell. This produced a very unfortunate reaction on the child's part, and it took months for her to recover.

The child should be emotionally desensitized and toughened at an early age, that is to say, he must become accustomed to taking a certain number of hard knocks and to dealing with unpleasant situations. He cannot be kept in cotton batting all his life. The longer he is kept shielded and protected, the more difficult it is for him to adjust to the outside world and to unpleasant situations. It is, therefore, a mistaken kindness to shield a child too much, and to keep him away from too many unpleasant things. Again it is a question of striking a very nice balance. To how much shall we expose the child? We must not put too much of a strain on him, for too great an emotional strain on the small child may produce lasting and harmful effects. It is very much like the problem of physical training. The child needs to get exercise, he needs to use his muscles, but if

he overtaxes them he will harm himself. Those who have to do with athletics know that overdoing physically has led to a condition which the athletes call "burning one's self out" and which causes one to be absolutely no good when it comes to college athletics, whereas had he been taught to preserve his vitality and strength and not overdo in high school, he could have made a still better record in athletics in college. The same situation applies to the emotional life of the child. He needs to learn to deal with emotional problems, he needs to develop that side of his personality, he needs to get strength, and it is a question of just how much that particular child can stand. The sensitive, delicate child must be handled very carefully, whereas the phlegmatic, tough sort of child will stand almost anything.

From the physical standpoint, one tries to improve the health of the child by hardening the body. He is taught to use it, he is exposed to work and exercise with the idea that it develops him physically and improves his health. It is well for the child to become accustomed to standing a certain amount of pain and suffering.

One value of such sports as football is that they teach this particular ability. Not only must the child be hardened physically, he must also be hardened mentally; that is, he must go through

a process where he learns to bear a certain amount of pain and discomfort without complaining. The child that is neurotic and high-strung is often protected from most of the stresses and strains of life because it is felt that he cannot endure them. Such treatment, however, obviously fails to accomplish its purpose. What should be attempted in such cases is a slow, gradual hardening process in which one is careful not to subject the child to stresses and strains which he cannot tolerate. It is even more important to carry out this process on the neurotic child than upon the normal, for the sensitive child must learn to tolerate the disagreeable things of life.

The child needs some outlet for his emotional life. One should, therefore, provide him with healthy, normal outlets, so that he doesn't seek some unhealthy and undesirable outlet for his emotions. This means that the parent has the responsibility of seeing that there are suitable opportunities for the child to get pleasure and satisfaction out of life in a manner that is healthy and normal. Otherwise the child will tend to turn to unhealthy means. The parent must keep about one jump ahead of the child under these circumstances. He must have thought up things to suggest to the child and must not be a "wet blanket" who is always objecting to everything the child

does. He must have suggestions which are suitable for the child as to things he may do and ways he may occupy himself.

In dealing with specific situations in life, we may find that the way we deal with it will affect the child very markedly. Certain situations may be the means of rendering a child extremely sensitive to a certain situation, or the means of making him much less sensitive. Take a specific example: A small child cuts his finger and comes running home, blood on his finger, tears streaming down his cheeks, yelling at the top of his lungs and quite frightened. Several other children are trailing after him and furnishing a good setting for him to stage an emotional scene. Suppose the mother, under this situation, shows a good deal of fright and emotion, asking if he is badly hurt and wanting someone to telephone at once for a doctor. She may also inquire in a very solicitous manner if he is sure he is not hurt somewhere else. The child is encouraged to give way to his emotions by such an attitude on the part of the mother and the next time he cuts his finger he is going to be more inclined than ever to stage a scene and to be still more upset. On the other hand, suppose the mother in a very calm, matter-of-fact way says, "Well, it is too bad you cut your finger, go over to the faucet and place

it under the water to clean it, and I'll get some bandage and iodine and fix it up. You mustn't cry if you ever expect to be a football player when you grow up," it will take a lot of emotional tension away from the child, and the next time he will be less sensitive and less inclined to cry and stage a scene. In that way, one can sensitize or desensitize a child for immediate situations in life. Here the theory of the conditioned reflex helps to make the problem more intelligible.

The physical health of the child is of the greatest importance and everyone who has had much to do with children has run across many cases where temper tantrums, irritability, sullenness, and undesirable traits of that sort have been merely the expression of a sick or tired child. And the treatment under such conditions is not the punishment of the child, but the building up of his physical health. When a child is habitually cross and irritable, one should always consider the possibility that there may be a definite physical factor entering into the situation.

The small child tends to have a good deal of imagination, and the question comes up, how much should this trait be encouraged or discouraged? In the sensitive, imaginative child, one may need to discourage this trait somewhat, and an effort should be made to keep the child

in close touch with reality, whereas in the more phlegmatic child it may seem desirable to encourage, as far as possible, his powers of imagination and try to increase them.

Fairy tales of a bloody or gruesome nature should not be told to a very small sensitive, imaginative child. The average child probably reacts to such stories in a healthy manner, but one does see a certain number of extremely sensitive children who seem to be harmed. It might even be well to imitate the Lilliputians, for according to Swift, "if it be found that these nurses ever presume to entertain the girls with frightful or foolish stories, they are publicly whipped thrice about the city, imprisoned for a year, and banished for life to the most desolate part of the country."

The child's curiosity should always be encouraged. It may seem quite unnecessary in a great many cases to encourage it at all, but certainly it should not be discouraged. Curiosity is something which most children have and which they tend to lose all too quickly. Grown-up people are not curious enough, they take things in a matter-of-fact way and do not feel curious. Therefore, encourage a child to keep up his curiosity even if it is pretty hard on the parent. If

Newton had not been curious when the apple fell to the earth, he would not have discovered the laws of gravitation. In writing about Alexander Graham Bell, David Fairchild makes this interesting comment: "It always seemed to me he delighted to wonder. Wondering to him was almost a passion." If Alexander Graham Bell had not been curious he would never have invented the telephone. And so curiosity is a necessary quality in individuals who make great discoveries.

There are certain misconceptions with regard to children concerning which it might be well to speak. It is a very common idea that, if a child never causes trouble, never gets into mischief, and obeys promptly, he is well trained, and that from the standpoint of mental hygiene things are in a satisfactory condition. This is often not the case, and whenever we have a so-called model child—very obedient, very polite, very well behaved—one should be on his guard and tend to question the mental health of such a child.

We frequently find that such a child is well behaved because he is physically weak and has comparatively little energy, and therefore has no tendency to force himself into situations and get into difficulties. The child with a good

healthy makeup, overflowing with health and full of animal spirits, is always getting into mischief.

Again, a well-behaved child may represent merely a too submissive disposition. Some children are born with very little capacity for self-assertion. They are easily influenced and easily forced into a routine laid down by their parents. The imposing of strict discipline on such a child merely exaggerates this submissive tendency and handicaps him still further when he has to leave his own home and make his way in life.

We may find that outwardly correct behavior may indicate that the child is getting his satisfaction from life in some unhealthy way, and hence, has no desire to seek means of getting satisfaction that would cause a clash with his parents. For example, a child may spend a great deal of time in rumination and day-dreaming which is very satisfying to him. Hence, he gets into no difficulty with the world of reality. Such a habit, however, when carried to such excess, is unhealthy and tends to unfit the child for the world of reality. The ultimate result is that when he does have to face the world of reality he finds that he has become so accustomed to dealing with the world of fantasy that he is quite incapable of dealing with the world of reality. Or again, sex practices of

various sorts may also give the child the emotional satisfaction he desires, and hence he has no desire to seek further satisfaction and to get into mischief or trouble.

In recent years we have heard a great deal about allowing the child to express his individuality unhampered by discipline or commands. A great many parents are wondering whether they are too severe and strict with their children and much discussion has arisen concerning this point. Here, again, if we keep in mind the purpose of training the child we may find an answer to this point. Any person on reaching adult life finds that the environment imposes all sorts of restrictions upon him and that he must accept these restrictions and conform to them. Otherwise he will limit his own efficiency and his own happiness. Therefore, the earlier a child learns that there are forces outside of himself which are more important and more powerful than he is the better it is for the child. Unless a child learns this lesson he tends to become self-centered, egotistical and selfish. Allowing the child to express his own individuality unhampered is often merely an excuse on the part of the parents for lack of adequate discipline and training.

Undoubtedly, the most important element in

the training of a child is the atmosphere of the home. This is of greater importance than any other training or instruction which can be given.

To cite an illustration: Suppose we wished a child to learn to speak English correctly—what would be the most important thing? We may say that years of studying the English language in a suitable school is of importance, but we find that a child who grows up in a home where correct English is spoken will commonly speak correct English himself even if he does not understand a single rule of grammar. In the same way, if a child grows up in a home where there is a pleasant, cheerful atmosphere, where the father and mother control their tempers and display a correct mental attitude, the child himself will tend to do these things quite unconsciously. "Preaching" to the child, lecturing him and scolding him have nothing like the influence of a good example.

A great many parents are very much upset because their children lie and steal. They do not realize that the small child is not immoral but simply a-moral. That is to say, he has to acquire a standard of moral values. He must be sensitized to certain moral values. In sensitizing a child it is important that you do not display too much emotion. It is not a good thing for a child to have his parents tremendously upset every time he tells

a lie. The small child is unable to distinguish between imagination and reality. He tells all sorts of fantastic stories because he, himself, has no clear conception of the difference between fantasy and truth. He should be taught this difference in an unemotional way and punishments, when given, should not consist of highly emotional appeals. Frequently the marked sensitivity of a parent to some fault of the child's is merely a test of the sensitivity which the parent has toward this problem and indicates the great difficulty the parent has had in overcoming this tendency rather than any high standard of morality on the part of the parent. Therefore, if you find yourself tremendously upset by some minor misbehavior on the part of the child, it is well to stop and inquire whether the reason is that you, yourself, have become tremendously sensitized to this problem because of your own difficulties in dealing with it.

CHAPTER IX

THE GROWING BOY AND GIRL

IN a general way, we may say that the child is an undeveloped or at least a partially developed individual both physically and mentally and that he is much more dependent upon his environment than is the adult.

There are various standards for grouping individuals as shown by the classical story of the boy who, when asked how old he was, replied, "My intellectual age is ten years, my emotional age is nine years, my physical age is twelve years, but my chronological age, which I presume you wish to know, is eight years."

This emphasizes the fact that many individuals do not develop evenly, that is to say, their emotions, intelligence or physique does not keep pace with their chronological age.

The child who develops unevenly has many difficulties to face. The intellectual development may lag behind the rest, and if this is sufficiently marked the child is classed as feeble-minded. In these extreme cases, the child cannot adjust well

to the usual home and school environment. He is teased by his smaller but brighter companions and tends to develop a marked feeling of inferiority. Because he is larger he may revenge himself by beating his younger and smaller playmates or he may accidentally injure them in play. If he has brothers or sisters, they will also become sensitive to the situation. As a result friends will not be invited into the home. The family life will be disrupted and the home atmosphere profoundly affected. It is a mistaken kindness to keep such a child in the home. He would be much happier and much better trained in the special schools which are equipped to care for him. He would mingle with other children among whom he would not feel inferior. Such schools are designed to give him the best opportunity for development and for happiness. The advantages to the rest of the family are too obvious to mention. In many cases, the healthy development of normal children has been sacrificed in order to keep up an arrangement that is beneficial to no one. Recently I saw a feeble-minded boy who was disrupting an entire household. His sister who was in college could not invite her friends to the home because of his appearance and behavior. It was only with a great deal of difficulty that the parents were persuaded to send him away to a

school where he would be properly trained and cared for and thus allow the daughter a normal home in which she could entertain her friends.

It is easy to advise regarding the child that is definitely feeble-minded, but what about the child who is below the average of the family in intelligence but is not low enough to be considered feeble-minded? Such a child lags behind in his school work. His grades are poor even when he is industrious and studies more than the allotted time. He is apt to be scolded by his parents and compared unfavorably to his brothers. Is it any wonder that such a child becomes irritable, sullen, keeps to himself and often becomes a behavior problem?

Some time ago, I saw a girl of sixteen who was doing very poor work in high school. She would play truant and would lie. She was becoming more irritable and unmanageable. Her expenses were being paid by a wealthy woman who was interested in the girl and anxious for her to make good.

At first, the girl was sullen and uncommunicative. Finally her confidence was gained and she stated that she hated school, that her work was difficult and that she was punished severely for failures. The other girls looked down on her and called her dumb. Her real interest in life was to

become a nursemaid or attendant for small children. There was a hospital for tuberculous children nearby and she was anxious to secure a position as attendant there.

Special tests were made which indicated that the girl did not have the necessary intellectual equipment to do high school work. It was obvious that her behavior difficulties were in relation to her limited intelligence and the fact that she was expected to do school work which was beyond her power. All this was reported to her patroness and it was suggested that she be given a chance to work as attendant in the hospital. This was done and all the difficulties disappeared. The girl was reported as being industrious, conscientious, very fond of the little children and a very satisfactory attendant.

This case illustrates how behavior problems in school may be caused by the individual's being forced to carry on activities for which he is not fitted. It is well to realize that all children are not capable of doing college work (or even high school work) and attempts to force a college education on such a person can only harm him. Unfortunately many parents are unwilling to face facts with regard to their children; and, feeling that a college education will give social prestige and increased opportunities in other respects, in-

sist upon it for their children, irrespective of the latter's desires and abilities. Many times it is the parent, who has himself been unable to secure a college education, who is most insistent on one for his child. He thus hopes to live out through his child his own thwarted ambitions. Fortunately, the colleges of the country are realizing the situation and are attempting to prevent the admission of unsuitable individuals.

It is well to remember that the average intellectual level of the individuals making up the population of the United States is such that they can only finish the eighth grade. It does not seem to be entirely accidental that the so-called common school education stops at the eighth grade. Psychological tests have shown that the average mental age of our population is about fourteen years, which indicates the ability to finish the eighth grade and to go very little further. Any program of education needs to take this into consideration. It sounds very well to talk of universal high school training, and of pushing the school age up to sixteen or eighteen years, but the result of keeping the child in school at tasks which he is incapable of doing is unfortunate for the child and for the community. The money spent on this so-called higher education is worse than wasted. Before any child is required to go on beyond the

eighth grade it might be well for him to have an intelligence test to determine whether or not he will profit by such further education.

Nor is the child whose intelligence has developed ahead of the rest of his personality free from troubles. If he is brighter than the rest of the children of his age, he may find his school work so easy that it requires little effort on his part. As a result, he has too much spare time on his hands and is likely to get into difficulties. He may become a disciplinary problem in the school. He may get into habits of idleness and learn to dislike anything that requires hard work. Since he is able to do well in his studies with comparatively little effort, it is only when he reaches high school or even college that he finds that he must buckle down to serious study. By that time, the habit of idleness is too firmly fixed to be shaken off and the boy who started life with high intelligence and a fair personality has become so fixed in his undesirable habits that he cannot change and hence makes a miserable failure of college and after life.

Sometimes the bright child even fails in the grade school. In Massachusetts, the law requires an examination of all children who are three or more years retarded in their school work. A careful study of such cases has shown a number of

children who were unusually bright but who had simply lost all interest in their work. It is of interest that most of these children did well when advanced to a class suited to their intellectual endowment. So we have the interesting spectacle of children failing in their school work because they are too bright and being reported as possible cases of feeble-mindedness. And we also see that advancing a child in his classes when he is failing may at times cause him to do satisfactory work.

But other complications may arise. The brilliant child may be in a grade that suits his intellectual age but not his physical or emotional age. Such a child may find it difficult to mingle with his classmates socially or athletically. Their tastes are more advanced and he feels out of place with them. He cannot compete in athletics on equal terms. Hence he may find himself a misfit and develop ideas of inferiority. To compensate for this, he strives to excel in the one line that is possible, namely in his studies. He may develop into a child prodigy who leads his classes and is regarded as one from whom great things are to be expected. Instead he disappoints everyone by either breaking down mentally or by failing to accomplish anything of importance. The reason is that his intellectual qualities have been de-

veloped at the expense of the other qualities of his personality and he has grown in a very one-sided and unhealthy fashion. He has learned a certain brilliance in scholastic achievement but has failed to develop the well rounded and properly integrated personality so necessary for mental health.

Of course the situations mentioned do not always or even usually occur. In a properly run school and with a little special attention such a child may be interested in other ways, such as nature study and similar pursuits which will utilize his intellectual side and also secure desirable outdoor exercise. Athletics will increase his physical development and teach him to cooperate with a group. In fact, President Lowell of Harvard has urged that boys should come to college at a younger age and has insisted that the dangers of such a course are often over-estimated.

Another source of difficulty is when the individual fails to develop emotionally. Intellectually he may be extremely brilliant but he cannot assume an adult attitude towards life; there is a childish or petty jealousy, or some other trait that marks the persistence of infantile tendencies in an otherwise adult personality. There are many such individuals in the world. On superficial acquaintance, they seem exceptionally capa-

ble individuals. It is only when one sees more of them that it is realized that they are lacking in certain traits necessary to the attainment of a well rounded personality. Such individuals often fail to achieve the success that seems within their grasp.

When we have an individual who is defective both intellectually and emotionally, we have a combination which is particularly difficult to deal with and many such individuals require permanent custodial care. The feebleminded criminal type comes from this group.

Adolescence represents a transitional stage in the development of the individual. Roughly, it is represented by that period when the individual is changing from a child into an adult. It is not easy to establish definite limitations as to when adolescence begins and when it ceases. It usually begins gradually and stops in the same manner. The period of adolescence varies in different individuals. In some individuals it comes on earlier than in others, and in some individuals it lasts longer than in others.

Adolescence in most organizations of society represents a period of stress and strain, a period of readjustment, when the individual finds himself changing physically, mentally, emotionally,

and often has difficulty in adapting to these changes.

During adolescence, the average individual tends to develop more and more the qualities of the normal adult. He tends to emancipate himself from the control of his parents. He wants to make decisions for himself, he wants to be independent, to have fewer things settled for him; he wants to live his own life. The individual who is somewhat timid, shrinking and childlike or who has been over-protected may seek to avoid this very thing. He finds it uncomfortable and unpleasant to have to make his own decisions, and still wishes the protection, advice and domination of his parents. He has no desire to become emancipated or to become more independent. This latter type of individual will ordinarily get into a certain amount of difficulty with his environment sooner or later. If he has very dominating parents everything may go smoothly for the time being, that is to say, his parents are so satisfied at playing the rôle of parent, that they do not wish to see him grow up. Therefore, they continue to dominate and to control him. The adolescent who is timid, backward and immature may accept this domination and be perfectly satisfied with it, and for the time being this may

seem a satisfactory solution to the problem; but, as time goes on, the individual will ordinarily be compelled to take more responsibilities, and then he is going to find it difficult. Of course there are a few cases in which this does not occur. The parent may live to a ripe old age, living even longer than the child, or the child may marry a very dominant person, who serves as a parent surrogate.

An extreme example of this condition was the case of a man of forty-eight, brought to the Psychopathic Hospital, whose mother, seventy-five years old, was much upset because her son insisted on leaving the maternal roof and living by himself. She felt there could be no reason for such a course, and that he was nothing but a bad boy who was not minding his mother as he should. In such a case, it is interesting that the man, at forty-eight, strove to escape the domination of his mother, showing that there was still a little spark of rebellion left within him.

So we see that a parent who enjoys dominating the children will try to keep the adolescent still a child, and will try to prevent him from growing up. The healthy adolescent rebels against this attitude, and wants to grow up, and that is one reason why adolescence is often such a stormy period in the life of both parent and child.

Neither one quite understands the other. To the parent, the child is becoming rebellious, sullen, disobedient, and it seems as if all the long years of careful training have been simply wasted upon him. To the child, it seems as if the parent has no understanding or appreciation of the things that are stirring within his breast. He resents being still classified as a child, being told that he can't do this, that he must do that, and so there is this eternal struggle—the parent commonly tending to continue his domination, the child seeking to emancipate himself. This may produce a great many different types of conflicts, and may leave scars which will remain for the rest of the individual's life. A too dominant parent, one who exerts authority in an arbitrary manner, may cause that child to develop an attitude of rebellion towards all authority. In the beginning, the parent is the source of all authority and power, against which the child may rebel because it seems to be without reason, understanding or justice. As the child gets older, he may transfer the attitude of rebellion toward other authority, such as the school or the state, and so you may find, in the life of many a radical or anarchist, a very dominating parent as the cause of his special attitude toward life.

An example of this is shown by the case of a

high school teacher who was preaching Communist doctrines and urging rebellion to all authority. He was arrested by the police for his utterances against the government, and was finally sent to the Psychopathic Hospital. One found exactly that basis back of it all—a very unreasonable, dominating father who had insisted upon controlling in a very arbitrary manner all of this young man's behavior from the very time of his birth, and this rebellion against authority merely symbolized his rebellion against the tyranny of his father.

During adolescence, the individual may manifest a number of new qualities. He changes physically and mentally. Often a very idealistic attitude will manifest itself only to be succeeded by a very irritable, dominating and intolerant attitude, so that the adolescent seems very inconsistent. As a matter of fact he is going through a period of struggle in which varying tendencies are striving for mastery. At one time one tendency is dominant, at another time another tendency. Under such circumstances, it behooves the parent to adopt a sympathetic and understanding attitude. Severe repression, constant scolding and nagging accomplish very little at this stage. If by the time the child has reached adolescence he has not learned to mind (assuming, of course, that he

has had average training), there is very little likelihood that the parent will secure any improvement by adopting more repressive measures. This is the time when the parent tends to nag the child, to hold up examples to him. That is a very dangerous thing. There is the well known story of a father who said to his boy, "Now look here, you're going out nights, you're not working, you're not doing anything you should. Why, when Abraham Lincoln was your age he worked hard, studied nights, was very industrious." The boy looked up and said, "Yes, and when he was your age he was President of the United States." So the father needs to be rather careful about the way he uses examples to his children.

Nagging is something which not only accomplishes nothing good, but usually accomplishes harm. There are cases when a parent starts out with his little lecture and the child interrupts and says, "Yes, I know what you're going to say," and proceeds to say it. It is perfectly useless to lecture a child under such circumstances.

Adolescence is the time when a parent should strive to retain the confidence of his child. It is the time when, if he can do this, he can probably be most helpful. Undoubtedly a marked degree of tolerance and respect for the child's own

rights, and willingness to allow him, as far as possible, to form his own opinions is the ideal attitude for the parent to take. Unfortunately, this is rather difficult for parents to do. There is a marked tendency on the part of parents to consider certain behavior of the adolescent as especially reprehensible, and to be especially intolerant to disobedience, insolence and a general refusal to conform.

Often, in schools, the teacher takes a similar attitude, and the child that displays these traits is regarded as a serious behavior problem. From the standpoint of the psychiatrist, this is not so. These are rather normal and natural traits which the child develops, and are not at all a sign of serious maladjustment, unless manifested to an extreme degree. They are, it is true, very upsetting traits, and to every parent and to every teacher they are very disturbing signs from the standpoint of keeping discipline in the home or school, but from the standpoint of the final outcome of that child's life these are not particularly dangerous signs, or things to worry about. They are things to bother the parent and teacher, but not things to cause worry about the child's ultimate welfare. It may be a much more serious thing when the child is too obedient, when a child is regarded by parents and teachers as a

model child, and considered ideally adjusted to his environment, when as a matter of fact he is poorly adjusted.

It is well to keep in mind that some of these traits that the adolescent shows are passing phases that will take care of themselves if given time. The child passes through a number of different phases, and the fact that he is passing through these phases need give us no concern as long as he passes out of them at the proper time. It is only when they are unduly prolonged that we need feel concerned about them.

When we look at some of the specific problems of the adolescent we find there may be satisfactory explanations and ways of handling them. For example: A very common thing to be found in adolescence is that the child is falling down in his school work and shows a certain lack of interest in it. He is not doing as well as he did formerly. This often leads to punishments, to scoldings and naggings on the part of the parent which may not affect the situation at all, or may even affect it unfavorably. There are several things that may be considered. In the first place, a child frequently is growing quite rapidly at this period, he lacks the energy and strength which he has previously had, and this unwillingness to study may, in some cases, be a protective mechanism; it

is the child's unconscious way of protesting against allowing himself to be worked too hard. He realizes vaguely he can't stand overdoing at that period when rapid growth is sapping his energy and strength to such a degree. In such a case, of course, the question can be easily settled by a careful physical examination by a competent physician, and the thing to do is not to try to force the child nor to send him to a summer school to try to make him catch up, but to give him longer periods of rest and put less strain upon him. The ultimate effect will be a very much better one if this is done.

Again, poor grades may be the result of a dislike for a particular teacher. That is a problem which we see very frequently—a child takes a dislike to a particular teacher; he, therefore, does not do good work in that particular class. That may call for a careful going over of the whole situation with parent, teacher and child, perhaps with all three together. That is obviously a difficult thing because it is seldom we can find all three able to sit down and discuss the thing in a non-emotional manner. If they could, the situation would probably never have occurred.

At the time of adolescence, there is often, particularly in the boy, a strong development of gang spirit, and this is something which can be

dealt with in a very satisfactory manner with such an organization as the Boy Scouts which takes in boys of twelve years or older. It is one of the best methods that has yet been developed for dealing with the adolescent boy. It offers him a very suitable outlet for most of his energy and desires and gives him, or at least should give him, a chance under competent leadership to develop an excellent set of ideals, to acquire a good deal of practical knowledge, to mix with a group of other boys of his own age, and with a certain number of boys older than he who, having gone through a number of years of Boy Scout training, will be ideal examples for him to follow.

The Girl Scouts carries out essentially the same idea with regard to girls. The age of admission is ten years, and it differs in many respects, but the general principles are the same.

The great question during all the period of childhood is whether we can find these suitable outlets for the child's interests and emotions, knowing that if we can't find a suitable outlet there is the danger that he will manage to secure some undesirable outlet and utilize that. And so movements such as the Boy Scouts, Girl Scouts, Boys' Clubs of various sorts, etc., demonstrate how certain tendencies can be directed into

healthy and satisfactory channels, instead of having them diverted into unhealthy and undesirable channels.

Adolescence also represents a time when the individual is maturing sexually, and this causes a number of definite problems to occur. There has been, in the past, a certain tendency to think of the small child as asexual, as having absolutely no sex life, and of sex as developing at the time of puberty. That concept is, in most cases at least, absolutely incorrect, as has been shown by countless numbers of character and personality studies that have been made, both of the normal and abnormal. Sex is not something that is developed only at the time of puberty, and sex problems very frequently arise before this period, but they tend to become exaggerated and increased at the time of puberty, and with the development of the secondary sex characteristics and sexual maturity there comes a change of personality, and the sex problem often becomes markedly exaggerated. Sex activities may also cause more serious consequences. The individual may attempt a flight into idealism, a state in which he wishes to do away with all physical conditions and to rise to a very high spiritual level as a means of compensating for tendencies which disturb him.

It is commonly in relation to the sex problem

that we see so much turmoil at the time of puberty. This, more than anything else, is the cause of the trouble. How is one to deal with such a situation? What is a normal, healthy sex life? What is normal, healthy sex training or instruction for the child? What can be said about the whole situation? An older theory which has prevailed until at least quite recently has been that the child should be brought up innocent—by innocent meaning ignorant. For some reason our Western civilization has picked on the subject of sex as the one special topic concerning which a conspiracy of silence should prevail. Instead of curiosity with regard to that topic on the part of the child being welcomed as a sign of healthy interest and a normal desire to understand this problem, any questions with regard to sex were received by the parent with an attitude of moral indignation that the child should ask such questions.

Those who advocate such a method feel that any discussion of sex, any instruction with regard to sex will stimulate the curiosity of the child, will tend to stimulate interest in sex and will often result in the development of certain types of sex habits which are considered unhealthy and undesirable. Those who oppose this view insist that very few children do grow up innocent or

ignorant, and that it is not a question as to whether or not a child shall receive information with regard to sex, but from what source he shall get this information. Shall he get it from parent, teacher, physician or someone who can, in a suitable manner, impart such information? Or shall he have his curiosity thwarted, his interest stimulated, and finally get his information from unhealthy and undesirable channels? We all know that the small child becomes intensely curious if anyone has a secret and refuses to tell him. If the child wishes to know about sex and his curiosity is repulsed in that way, his interest and curiosity are not abated, they are usually stimulated, and he seeks other sources of information. If he finds his mother has given him incorrect accounts, such as the stork, or the black bag in which the doctor brings the baby, the child may lose confidence in his parents, and may come to feel that his parents are not persons to go to to inquire about any important emotional topic, since they will not give any information that is worthwhile, and furthermore that they are not reliable or trustworthy.

There are some who believe that a course of sex education given in school will be a solution to the problem. Irrespective of whether such a course is given, it is quite clear that it will not be

any solution of the problem. It may help somewhat, but it will certainly never solve the problem. Formal instruction, often given by someone none too familiar with the topic, filled with his own repressions and emotions on the subject, will not help much toward solving the child's problem. Ideally, sex information should be given just as any other information. The child's questions with regard to sex should be answered whenever he asks them, and he should be told what he wants to know. This does not mean that an elaborate lecture on the subject should be given, but that the child should be given what facts he asks for in a way that he can understand. If given in that manner the tendency on the part of the child is to accept these facts in a very ordinary, everyday manner and not to develop any particular emotional attitude towards it. So in one case, one small boy who was looking through an encyclopedia, turned to his mother and said, "Mother, is it true babies grow inside their mothers and then are born?" She said, "Yes." A minute later he asked, "Are all bridges made of steel?" She answered, "No." Now a fact, given to a child in that manner, carried no undesirable emotional effect as facts concerning sex so commonly do carry as they are usually given to children. The one difficulty about this particular

method is the fact that most parents are themselves so sensitized, so emotionally disturbed over the topic of sex, that they cannot discuss it with their children in an unembarrassed and perfectly straightforward manner. There is the rather amusing case of two women who were talking together. One woman said to the other, "What are you going to tell your little girl when she asks you about questions of sex?" The other woman said, "I have been thinking it over, I don't know what else to do, I guess I'll have to tell her the truth." Now it is interesting at this present stage of our civilization that the parent has to think over what he can tell the child and then confesses that he is baffled, and can do nothing but tell the child the truth. Why should the parent take any other attitude? It is, of course, because of the sex training or lack of sex training of the present generation of parents who have this great emotional attitude to such a topic and cannot train their own children in an adequate way.

It has been shown in a very convincing way by studies made by Healy, Bronner and other students of child behavior, that lack of adequate sex training and a sensitizing with regard to the whole topic is often at the root of all sorts of behavior problems which are regarded as due to

something else. So we find that lying, stealing and running away, and behavior of that sort may have its roots in some unsolved sex problem in the child's life. This is a fact with which every student of the subject has to deal. The question is, are we sufficiently educated and intelligent to face facts and see situations as they really are, or are we going to resort to some of our wish-fulfillment types of thinking, and insist upon seeing life as we would like to see it? Every physician and every student who is making a careful study of behavior problems in children, finds that this whole problem of sex is very important. You can't get away from it, and if you insist on neglecting it you are simply neglecting one of the most important problems.

Practically, what can be done with regard to the whole situation? As mentioned before, the ideal method is for the child to get his sex instruction the way he gets any other instruction. This will not solve all problems of this sort, but it will solve a certain percentage of them.

Assuming sex practices of some type or other have been discovered, the most common way of dealing with them is to give the child a very severe moral lecture, to insist he has behaved in a very immoral way, to threaten him with punishments, both in this world and the next, if he per-

sists in such habits, and to endeavor to frighten him into good behavior. The point to raise with regard to such an attitude is, does it work? Does it solve the sex problems for the child? Does it help him to overcome his problems and difficulties? A great many times it does not. Every physician, every student of the subject, knows that the usual harmful effect of sex practices among children is not physiological, it is psychological. The production of feelings of inferiority, sensitivity and guilt is the most injurious result of habits of this sort.

If a child is frightened, threatened and made to feel highly immoral and an outcast, the actual effect will be to increase the feeling of guilt and inferiority, to cause the child to brood on the subject more than ever, and to increase the amount of difficulty rather than decrease it. Therefore, in a great many clinics dealing with behavior problems in children, when such a problem comes up, the common practice is to try to desensitize the child, to reassure him, to point out to him there are no markedly harmful effects, that such practices are exceedingly common, and that, although we wish him to overcome it, it is not desirable for him to brood about it and be too much concerned. It is pointed out to him that the harmful effects are the brooding, the feeling of

inferiority and guilt which he has developed. Under such conditions one finds that a great many children stop worrying about the problem, and the less they think about it, the less likely the practice is to occur. Thus the whole problem may largely solve itself. That is the test of any method of treatment. How does it work?

Cases have occurred where the child has been told, "This will lead to insanity—you will become insane," and the child has become tremendously worried and brooded until he has become insane. In such a case the actual breakdown of the child can be traced to this method of dealing with the problem.

In conclusion, it may be said that we consider adolescence as a transitional period from childhood to adulthood. The individual is changing physically and mentally and he goes through a great deal of stress, strain and turmoil trying to adjust himself to the changes which life is demanding of him, and the changes he is demanding of life. We need to be very tolerant and very understanding with regard to the adolescent, and realize that this is a phase he is passing through, and that an attitude of sympathy and helpfulness will be more likely to get him through in a safe and satisfactory manner than an attitude of severe repression and scolding.

The transition period from childhood to adulthood should be prolonged rather than hastened. It is seldom wise to force the child and it is well to leave many activities for later years. The tendency of young high school students to outdo the senior college student in social activities is to be strongly condemned. There should be a gradual change, not a sudden one.

CHAPTER X

THE ROAD TO MENTAL HEALTH

IN the preceding chapters it has been pointed out that an individual inherits certain qualities and capacities from his ancestors, and that this inheritance limits and modifies his behavior. Furthermore, it has been shown that the physical structure of the individual is a definite factor in determining his capacities and limitations, and that physical disease may affect or alter the disposition, intelligence and behavior of a person.

The early years of childhood have been emphasized as the formative years, when certain reaction patterns are laid down and the individual's makeup becomes set, crystallized, and less plastic. We have, therefore, emphasized the importance of early childhood training in determining the mental health of the individual. As Dr. White has pointed out, childhood is the golden age for mental hygiene. Consequently, it is only right that the mental hygiene movement has fixed its interest largely upon the child, and emphasized the problems of childhood. The reason

for this is that the individual born with a good constitutional makeup, and having suitable and adequate training during childhood is not likely to break down in later years. He will find himself adequate to most of the problems of life; whereas the child born with poor endowment and subjected to undesirable environment will be more apt to break down.

It is perhaps necessary to emphasize again the fact that an environment which removes all sources of conflict is not an ideal one. Character is formed by overcoming difficulties and the personality requires difficulties with which to deal if it is to develop strength. The environment, therefore, which will be favorable for one type of personality will be unfavorable for another type, as has been pointed out in Chapter IX.

Thus the task of mental hygiene for adults often consists in tracing back the difficulty to childhood and finding there the explanation of later maladjustment. The various problems concerning child training already discussed represent some of the causes of troubles in later life. Very frequently the difficulties which the adult has in dealing with life represent the carrying over into later life of certain infantile and unhealthy attitudes.

Is it possible to make clear what we mean by

adult attitudes and behavior as opposed to infantile attitudes and behavior?

Such a clarification is not easy, but will be attempted. In the first place, by "adult" we do not mean the way many or even most adults think and behave; rather we mean an ideal standard, to which few adults completely attain. The following ten points are given as suggestive of what we mean by the adult attitude as opposed to the infantile.

1. Intelligence is developed to a reasonable degree.
2. Intelligence is utilized and determines much of the individual's behavior. There is an objective view of the self with an appreciation of its capacities and its limitations.
3. Immediate discomforts are endured for the attainment of future happiness.
4. The infant lives almost entirely in the present; certain neurotics live almost exclusively in the past or future; the ideal of adult behavior gives proper value to all three.
5. There is a reasonable degree of control over instincts and emotions.
6. The presence of undesirable feelings is acknowledged, but there is a firm determination to rise above such attitudes.
7. There is the ability to see the world of reality as it actually exists.

8. There is a normal adult heterosexual attitude.
9. There is the realization that the individual is a member of society, with an appreciation of his responsibilities in such an organization. There is also the wider appreciation of man's relation to the cosmos.
10. The personality is well integrated, various drives work with each other harmoniously rather than clashing, there is a minimum of friction within the personality, hence it is more efficient.

The behavior of the infant is largely at the instinctive level. Intelligence tends to develop slowly and steadily. In the feebleminded we see behavior that is commonly characterized as infantile and childish. This is due in part, at least, to the failure of intelligence to develop to the normal level.

As one grows older and life becomes more complicated, the use of intelligence becomes more necessary in making adjustments. The realization and utilization of one's strong points are important, since success and harmonious adaptation to life will be more likely under such circumstances.

A correct appreciation of one's limitations will prevent useless striving for unattainable objects on the one hand and failure to live up to one's

capacities on the other. Both are undesirable. One should have a goal which he has at least some chance of approximating. Repeated failures in attempting the impossible are not of benefit. Likewise, it is not good for the individual to lack faith in himself and refuse, because of feelings of inferiority, to attempt things that he could do.

Such feelings are widespread, so much so that Adler attempts to explain all difficulty on the basis of feelings of inferiority, and sees in all maladjustment some attempt to compensate for a feeling of inferiority. There is no doubt that this feeling of inferiority is a powerful motive in the lives of many individuals, but to give it the universal value which Adler does, hardly appears reasonable. It seems as if Adler, in his attempt to get away from Freud's overemphasis of sex as the great cause of all difficulties, has simply picked out another very common problem, namely, the feeling of inferiority, and has given that as the universal explanation of all trouble and dissatisfaction with life. Feelings of inferiority seem to be innate in some individuals, but they are undoubtedly acquired in early life by a great many others, particularly through the action of very dominating parents who constantly scold the child and point out his shortcomings.

Another source of difficulty to the child is what Frankwood Williams calls the "overly devoted mother" and which David Levy calls the "over-protective mother." She is commonly a poorly adjusted individual who sees herself as extremely conscientious and self-sacrificing, but who is much more likely to be sacrificing the child than herself. As Frankwood Williams has pointed out: "Burne-Jones caught in his model a certain spirituelle quality. We know now that the quality that he caught in the face of his model had its source in tuberculosis. This may not spoil the beauty of the picture, but for those who in looking at the Burne-Jones see the tubercular condition it is difficult to become ecstatic about the spirituelle; at any rate—so far as the model and those about are concerned—it were better to know of the tuberculosis. So with these mothers; it were better not to confuse what is spirituelle and valuable with what is sickness and destruction." Such mothers, often lacking adequate emotional outlets in life, fasten upon the child and produce an equal amount of mental disharmony within the child, preventing his developing in a normal manner. Usually the child is so dominated by such a mother that he feels inferior and inadequate to taking responsibilities on his own shoulders. A great many sensitive

children react to this by developing a shut-in personality and keeping as little contact as possible with the outside world. In that way they avoid much trouble.

There is also no doubt that feelings of inferiority seem frequently to vary in regard to personal capacities, and many individuals of the highest intelligence and greatest ability have marked feelings of inferiority. It is as if the more they know the more they realize that they do not know, and they, therefore, get an ever widening circle which shows them the large amount they do not know.

In a group of college students it was found that students who were ranked highest by their fellow students often graded themselves quite low, showing that a feeling of self-depreciation is not always associated with lack of ability. Conversely, there are some individuals who do not feel inferior because they do not know enough to realize how limited their capacities are. A certain amount of feeling of inferiority is normal and healthy. It acts as an incentive to improve oneself. Because we feel inferior we often strive to overcome our defects and thus this feeling of inferiority becomes a factor in producing self-improvement. This feeling, however, can develop to the extent that it becomes undesirable. Under

such circumstances, it may prevent the individual from attempting to accomplish anything. He feels that there is no use in trying because he is convinced that he is inadequate. Such an attitude tends to cause him to fail and to increase still further his feeling of inferiority, thus setting up a vicious circle.

At other times an individual may react to a feeling of inferiority by over-compensating, that is by developing an attitude of superiority in which he appears extremely self-confident, aggressive and vain. This attitude is familiar in all walks of life, where the individual, feeling quite uncertain of his own abilities and the attitude which others may take with regard to him, adopts a pretentious manner to clothe his feelings of insecurity. By such a method an individual may dominate and control others and thus demonstrate to them and to himself that he is really not inferior. Frequently a weaker individual will resort to all sorts of defences and subterfuges in an attempt to dominate a stronger companion. This may start in childhood when the small child finds that by taking a certain attitude he can upset the whole household and produce a great deal of unrest and disturbance. Even if he is finally punished, he may get so much satisfaction from feeling his ability to turn the whole household

upside down that he will still continue in his course. Many times the cause of such behavior is not recognized, and the parent is unable to understand why the child keeps on doing something that only ends in his being punished.

On the surface it does not seem as though the game were worth the candle, but if you examine closely it may be seen that the child gets a feeling of power through his ability to upset and disturb the household. This same will to power persists as the individual grows older. Like the feeling of inferiority, in moderate amounts it may serve as a desirable incentive but in excess it may produce many harmful results. Such individuals are all too frequent, and in their excessive desire to dominate and control others continually disturb society and produce a great deal of discord. Some reformers are of this type, although in other cases different mechanisms are at work. Such individuals bolster up their own feelings of self-importance by promulgating a set of rules and forcing others to conform to them.

The ability to endure immediate discomforts in order to attain some future desire is a characteristic of the adult. The infant demands the immediate satisfaction of every desire with no regard for ultimate consequences. He lives almost exclusively in the present. Memories trouble him

very little as a general rule. Many neurotic persons are troubled with painful memories and spend much of their time reliving unpleasant episodes. Others live in the future and spend most of their time anticipating imaginary troubles which never occur. Neither is able to enjoy the present to an adequate degree because of this. The ideal way is not to allow past troubles or future worries to interfere with living in the present, but to give proper values to all three.

The individual may have certain feelings of shame or guilt concerning past events in his life which he keeps more or less submerged, but which continue to torment him and prevent his making an adequate adjustment to life. There may have been some minor episode during childhood for which the child was severely punished. As a result he has developed a marked feeling of guilt and unworthiness, and as he grows older he is unable to rid himself of this feeling. Such a feeling usually persists at an unconscious level, the individual neither appreciates clearly its presence nor does he remember the episode which led to the development of such a feeling. All that the individual, himself, recognizes is a vague feeling of disharmony and dissatisfaction with regard to himself. This is a further example of

how the past may prevent the proper living out of the present.

The treatment of such a condition is to go over the whole situation with the individual in detail, and to give him more accurate and satisfactory understanding of himself. Often he is able to deal with such feelings adequately when he has learned from whence they come and has been given a more correct perspective.

As one grows older, it is expected that he will acquire a greater degree of self-control, and that his instincts and emotions will not determine his behavior to the extent which they have during infancy. There should be a frank recognition of certain undesirable tendencies as being present but there should also be sufficient ability to control these tendencies. The individual must learn to see things as they actually are. In the small child there is often little distinction between fantasy and reality. Many times the child comes in with an elaborate but preposterous story of some adventure which he claims to have had. Such a child usually is not consciously lying, he has merely failed to make the necessary distinction between what is real and what is imaginary. Many individuals carry this trait over into adult life. Wish-fulfillment thinking is an example of

confusing fact and fantasy. We insist, therefore, that the ability to face facts is an important trait in adult mentality.

The proper evolution of the sex instinct is also necessary if one is to be classed as an adult. Whether or not one accepts the Freudian theories of the sex instinct as passing through a number of well defined phases and gradually reaching a stage in which the individual has the normal sex attitude towards individuals of the opposite sex, there can be no doubt that the sex instinct is different in the small child, and that it does go through certain phases. Individuals, therefore, whose sex interest is fastened upon themselves or upon persons of the same sex may be said to have an undeveloped or infantile type of sexuality.

It is also necessary that the child come to appreciate that he is a member of society and that he must conform to the demands of group life. The infant has no appreciation of all this; he is extremely self-centered, has no feeling of responsibility toward others, and is an extreme individualist. Many times we find that the individual's disharmony in later life is due to the fact that he has never learned to cooperate with others, to submit to reasonable authority or to take some degree of responsibility in group life. The basis

of such a failure of evolution is often found in the relationship to the parents. If there has been an attitude of rebellion and resentment to the domination of the parent, whether through the fault of the child or of the parent, the individual is likely to fail in meeting adult responsibilities. The mechanism is that he often carries over to adult life this childish attitude of resentment towards paternal authority, except that, instead of its being confined purely to the parent, it becomes attached to any source of authority. For example: It may represent an attitude of rebellion toward the government. Having had a father who is unjust, dominating and tyrannical, the individual may grow up with the attitude that all authority is necessarily unjust, tyrannical and autocratic, and so he rebels against any organization of society and against any government and feels that any attempt at domination by law simply represents a tyrannical and unjust use of strength. In the same way, the inability to cooperate and get along with others is very seldom a trait which develops during adult life, except in relation to actual disease of the nervous system. It is simply the persistence of an infantile attitude.

With the growth of the individual, there should also occur the wider appreciation of his

relationship to the universe about him, so that some type of religious feeling is fairly universal. Here, one is treading on very debatable ground, and it is well to recognize that there are many definitions of religion. However, there is the tendency among the more liberal group to define religion as a sense of appreciation of deeper and more important relationships and of higher and more important values than can be recognized by the infant. Some types of religion, however, serve to maintain the infantile attitude.

Finally, we can say that the process of development should produce a better integration and that, as a result of education and training, the various instincts and emotions should no longer be clashing and fighting among themselves, but should be under such direction and control that they will work together in harmonious fashion. The individual under these circumstances will not be spending a considerable portion of his time and energy in dealing with conflicts within himself, but will be able to utilize his energies to a much greater extent and for the attainment of suitable desires. Thus it can be seen that much of the maladjustment and unhappiness in later life is due to the fact that the individual has never really grown up, that although physically and chronologically an

adult, his methods of dealing with life are still those of the infant. The task of mental hygiene is to aid the individual in acquiring the adult attitude toward life.

CHAPTER XI

FATIGUE AND SLEEP

THERE is a widespread idea that good physical health contributes to a large extent to mental health. This is true within certain limitations, but there are notable exceptions. Many persons with very poor physical health have attained a certain poise, a certain tranquillity of mind, and a certain mental adjustment to life which seem ideal and which surpass the adjustments obtained by most persons who are in good physical health. Physical invalidism, therefore, does not preclude the possibility of good mental health. On the other hand there can be no doubt that mental health is, in general, easier for the individual who is in good physical health, and that such conditions as fatigue, overwork and other conditions which produce a physically run down condition and sap the vitality of the individual are often contributing factors in mental breakdowns and are highly undesirable states. We therefore emphasize the importance of physical health and in-

sist that keeping the body in the best possible physical health is one of the most important steps which we can take towards keeping the mind in a healthy state.

The problem of fatigue is a very practical one with which most of us have to deal. On the one side there are the constant demands of life, the pressure of modern society, the necessity of making a living, and various other social demands which seem to tax our strength and energy to the utmost. And there is, as we grow older, less energy available for the demands of life. The small child is so often a sort of endless reservoir of energy; he seems to know the secret of perpetual motion and can keep going at a rate which makes older persons envious. As one gets on towards forty, one usually finds that the supply of energy seems to be definitely less, so that one tires more easily; there comes the realization that the body has passed the maximum strength, and that therefore one needs to conserve his energies and utilize them in the best possible way rather than to spend them freely and lavishly as so frequently the individual does during childhood and adolescence.

In that connection there are several points to keep in mind. How does one avoid fatigue? Obviously by realizing how much energy he has

available and not exceeding that particular amount, and by seeing to it that he has stored up a certain reserve supply upon which he can draw at times of necessity. A careful planning of one's life often produces a great conservation of energy.

In ordinary physical fatigue, the body is burning up glycogen (the form in which sugar is stored up in the tissues) at too fast a rate. It cannot supply oxygen fast enough to completely oxidize the glycogen and, as a result, lactic acid accumulates in the tissues. Hence, on exertion, one tends to breathe more deeply and more rapidly in order to supply more oxygen to the tissues. One result of a period of physical training is that more oxygen is carried in the blood stream.

A second result is that the individual is able to use more of his muscle. Ordinary nerve impulses stimulate only about fifty per cent of a muscle. After a period of training, the nerve impulses may stimulate as much as ninety per cent of the muscle. The result is a much more powerful contraction of the muscle and is one reason why athletes, particularly sprinters, have to be careful not to tear loose the tendons which attach the muscles to the bones. All this means that the trained athlete can use a great deal more energy than the average individual and may be able to tire himself out more quickly. The trained

sprinter can completely exhaust himself in ten seconds running the 100-yard dash.

It is evident that athletic training is not necessarily a preventative of fatigue. While it gives one greater power it also teaches him to expend that power more rapidly.

Another factor is the strength of the heart, which pumps the blood to all parts of the body, carrying oxygen to the tissues and carbon dioxide from them. If a man has a good heart, one which can pump blood around more rapidly than usual for a prolonged period, he will not tire easily. Such an individual is said to have a high threshold of fatigue. The study of a famous marathon runner showed that he had such a heart. Under test conditions, where a given amount of work was done on an exercising machine at a determined speed, this man was able to pump sufficient blood to his tissues to prevent the development of fatigue and seemed able to continue the exercise indefinitely. All other persons tested in the same way were unable to supply sufficient blood to their tissues and rapidly became fatigued.

From this we learn that an individual may be born with certain physical traits which allow him to exert himself strenuously for prolonged periods without becoming fatigued. There is, therefore, this constitutional factor. However,

within certain limits, an individual may increase his ability to resist fatigue by keeping his physical health at the optimum and by regular and moderate exercise. It is perhaps well to emphasize that the beneficial effects of exercise are obtained by regularity and moderation. Irregular and violent exercise, especially after forty, is more likely to be harmful. An occasional afternoon of fast tennis or similar violent exertion for the man who is taking no regular exercise is not desirable and may do a good deal of harm.

Studies of marathon runners showed that, towards the end of the race, there was a marked decrease in the amount of sugar in the blood. The following year, a number of these same runners were persuaded to eat sugar during the progress of the race. Most of them felt that they derived benefit from it and several ran the race in considerably better time than the previous year. Helen Wills Moody, who has won so many tennis championships, has been reported as saying that, when fatigued, she takes two lumps of sugar in a glass of hot water. One result of afternoon tea is that the individual eats or drinks sugar or starches so that the sugar content of the blood is increased. In addition, there is the cessation of work, a period of rest and relaxation and often the pleasure of meeting and talking with friends.

Afternoon tea is, therefore, a justifiably popular institution in many countries. Many persons have found that a glass of soda water or a dish of ice cream in the late afternoon enables them to resume work with renewed vigor. The point is that in many states of fatigue, the available supply of sugar or glycogen is exhausted and that the ingestion of foods rich in sugars or starches relieves the condition.

Needless to say, when an individual complains of always being tired there may be some actual physical disease causing it. The number of such diseases is far too large to even list. After acute infections it is very common, especially after influenza. Certain obscure constitutional disorders like anemia may be present and unsuspected. Hidden foci of infection in the teeth, tonsils, sinuses or elsewhere may give no other symptoms of their presence than a feeling of being below par and tiring easily. Eyestrain may produce a neurasthenic picture at times. The correct diagnosis and treatment of these underlying conditions will greatly if not entirely alleviate the symptoms. A prolonged period of convalescence in influenza, the feeding of liver in pernicious anemia, the removal of hidden foci of infection, the correction of eye defects with proper glasses; all these indicate how it is possible in certain cases

to benefit such complaints by proper medical treatment.

Another point in the prevention of fatigue is to have suitable conditions for work. Poor lighting, poor ventilation, unsuitable temperature (68 to 72 Fahrenheit is the optimum temperature for most work), unnecessary noise, etc., represent conditions that rapidly fatigue workers and diminish their output. As Donald Laird has shown, typists consumed nineteen per cent more energy working under noisy conditions than when it was quiet. Industry is commencing to realize that it pays in dollars and cents to relieve these conditions and is beginning to improve working conditions. The result is lessened fatigue and greater output on the part of the worker and increased dividends together with less labor troubles on the part of industry.

It is commonly held that monotonous work is fatiguing, but Otto Lipmann has pointed out that although certain work may appear monotonous to the observer, the worker may actually find it quite interesting. For this reason he insists it is impossible to say that monotony is a characteristic of any job. Certain repetitive tasks may be monotonous to certain workers. If this is so, they may cause fatigue, or a decrease in willingness to work. Even work that is monotonous is not

necessarily disagreeable because some workers may enjoy daydreaming and dislike to put their attention on their work.

Another point to be kept in mind is that there is nothing more fatiguing than unpleasant emotion, and that anger, jealousy, rage, envy, fear and emotions of that sort are thoroughly undesirable and unhealthy types of reaction. One could wish his enemy no worse punishment than to have him be in a constant state of anger and envy, because there is nothing that disrupts the individual more quickly and uses up his energy more uselessly than emotions of this type. We should, therefore, regard such emotions as anger, envy, jealousy and fear as emotions that we can't afford to indulge in. They are too expensive, they are not worth the price we pay for them.

Fatigue may be due to unpleasant emotion, monotony or too much change. The worker who dislikes his task tires more quickly than if he is interested and enjoys it.

Change of occupation may also relieve fatigue. James was probably the first to point this out, but industry has come to appreciate this fact. In one factory, the machine operators were accustomed to leave their machines at brief intervals to get fresh material. It was thought that it would be more efficient to hire "cheap" help to bring this

material to them. When this was tried, however, production fell off. It was then found that the brief period of change in walking over to get fresh material produced sufficient rest and relaxation of the muscles used in operating the machine, as well as mental rest and relaxation, to keep the operators working at an efficient level and that discontinuing this reduced their efficiency.

Another important thing is to learn how to relax. A great many individuals have no idea how to relax; they must always be doing something. A certain English visitor remarked that the American is a very dynamic individual; he even has a rocking chair to rest in. In other words, we can't rest without rocking back and forth, a criticism which is rather well founded. Many persons go along all day at such high tension without ever relaxing that they simply wear themselves out. Short periods of complete relaxation during the day are of benefit to everyone. This has been demonstrated in industry where careful studies have shown that in certain factories production was increased by adding several rest periods in which the workers were instructed to lie down and completely relax. The output of these workers was definitely increased by decreasing the amount of time they worked, and giving them rest periods.

Shepard has done some interesting work on the production of fatigue in workers at Purdue University, using young men in excellent health and of superior physique. He tried the effect of rest periods when they were doing "light-heavy muscular work." He concluded that if a worker were occupied in this manner for an eight hour day he should rest one sixth of the time; otherwise he could not give his maximum output. It was also found that it was best to have longer rest periods toward the end of the day when the worker was becoming fatigued.

Frequency and length of rest periods must obviously vary depending on the type of work that is being performed. Rest periods, however, should begin before fatigue occurs to such a degree as to decrease the individual's output or quality of work. It has also been found that work when one is fatigued is seldom efficient. This is a point well worth keeping in mind. Many times an individual confronted with a difficult task keeps working away until he is thoroughly tired out. His efficiency is greatly impaired, and he accomplishes comparatively little, whereas if he would only take the time to rest and relax, he would take up his task with renewed vigor and accomplish a great deal more in the same amount of time. But we have built up a false standard

that to be constantly on the go and to be tremendously busy and to work under high pressure is an ideal state of things. The result is, of course, that countless numbers of individuals break down in the forties and fifties because of this great strain, whereas if they had learned the secret of relaxation and rest, they would have continued ten or twenty years longer and continued in a more efficient way.

It is not always easy to learn to relax, but it is a capacity which can be acquired by real effort and endeavor, and it is something which will increase one's efficiency and add to one's ability to enjoy life. Therefore, learn to relax. When you have a few minutes with nothing to do, take that time to rest and relax.

A famous trainer, who looked after tired business men, had for one of his dogmas: "Never stand up when you can sit down, never sit down when you can lie down, get all the rest you can." Now that does not apply to the individual who has no work and nothing to do, but to the average individual who has a day's work ahead of him, and who finds it hard at times to get the energy for that work. For such a person it is a rule worth keeping in mind.

The problem of sleep is also of importance. There are many theories of sleep but none that

is completely satisfactory or that has been universally accepted. The beneficial results of sleep are well known. Everyone knows that he should get sufficient sleep. But how much is sufficient? In the first place, different individuals vary in their sleep requirements. There are numerous illustrations of individuals who get along with very little sleep and yet remain healthy and efficient. Napoleon and Thomas Edison are the classical examples most frequently mentioned. Still others require more than the average amount of sleep. It is probable that the average adult profits by at least eight hours of sleep each night. It is not entirely a matter of how long one sleeps, because light sleep in an uncomfortable bed with noise going on will not have the same beneficial effects as deep sleep in a comfortable bed, where all is quiet.

In order to find out the actual facts about sleep, considerable experimental work has been done. At Colgate University, Donald Laird has done some interesting experimental work using students as subjects. Immediately upon the subjects awaking in the morning he measured the amount of energy used when at rest. He then had them work at mathematical problems for fifteen minutes and again measured their energy consumption.

"After eight hours of sleep they consumed not quite ten per cent more bodily energy in doing fifteen minutes' rigorous mental work. But on mornings after only six hours of sleep, they expended slightly more than twenty-five per cent energy increase in mental work.

"These figures are based . . . upon nearly two dozen young men who were accustomed to this sort of mental activity, the data showing beyond question that a price in extra energy expenditure is extracted from us as a result of cutting our sleep short. Actual mental work, however, showed but little variance in quality on the different mornings.

"In other words, after the loss of only a slight amount of sleep, we can do about the same grade of this kind of mental work, but it takes more out of our bodies to do it."

Laird's findings would indicate that we use up less energy and hence become less fatigued by work if we have eight hours of sleep. If one desires to conserve his strength and perform his work with the least expenditure of energy, he should get plenty of sleep. For the person who fatigues easily and who finds it difficult to store up sufficient energy, more sleep is always to be recommended.

Further studies by Laird indicate that to se-

cure the maximum benefit from sleep, all noise should be excluded from the bedroom. The air in the bedroom should not be too hot nor too cold. It should circulate gently. The individual should sleep alone. The type of bed is important. It should be wide, have coil springs and a medium mattress. The sheets and blankets should be oversize and not so tightly tucked in as to limit free movement of the sleeper.

In an interesting article, Johnson, Swan and Weigand have pointed out that although various postures have been advised for sleep on various grounds, there is no scientific evidence for such claims. In a careful study of a series of healthy persons they found that most healthy sleepers change from one gross bodily position to another between twenty and forty-five times in eight hours of sleep. It was found that half of these postures were held for less than five minutes, one-fifth of them were held from five to ten minutes and one-tenth of them from ten to fifteen minutes. On an average of less than once in a night time did the sleeper lie in the same position for as long as one hour. "It looks as if the most restful night's sleep is characterized by the use of a considerable variety of bodily positions, all of which are contorted; none of which indicates anything like 'complete relaxation' of all parts of the

skeletal muscular system, such as one may observe in a fainting person, but each of which appears to be well adapted to the relief of irritation that was set up in the posture last taken, as well as in the day's activities. To get a healthy person to spend the night in any one position that the physicians recommend, one would need to strap him to a frame, or else put him into a cast and then prop the cast."

It was also found that unless a bed was thirty-nine inches wide some of the positions could not be maintained. A careful study of one sleeper showed that he took thirty-three postures during the night and that twenty-five of these were mirror images of others, obviously designed to relieve the tension produced by the preceding position. It was also noted that if an individual were not sleeping alone about half of the postures assumed would be prohibited.

But a great many persons when they become tired discover that they have difficulty in getting to sleep. And so certain states of insomnia develop. Insomnia usually develops gradually, and sometimes comes on because an individual is over-tired, but more frequently because he is worried. One of the great causes of inability to sleep is taking one's troubles to bed, and continuing to think them over. Now bed is no place

for one's troubles, and they should be carefully deposited on the dresser when retiring in the evening. There is nothing that prevents going to sleep more than worrying over the problems of the day, mulling over the various things that have happened and gone wrong, and thinking over the possible things that may go wrong on the following day. Such a state of mind is of no value whatever; one does not solve his problem in that way, but merely uses up energy in useless worry, prevents himself from relaxing and going to sleep and getting necessary rest so that he can tackle his problems on the following day in an energetic manner.

When difficulty is experienced in getting to sleep, there are a number of practical points to keep in mind. A hot foot-bath has a very relaxing effect, and is commonly said to draw the blood from the head down to the feet. While there may be some question as to exactly what takes place, experience has shown that the hot foot-bath is often an aid to sleep. A warm bath just before retiring often produces a pleasant state of relaxation. In the same way, eating and drinking before going to bed work with a number of persons. This varies however, with different individuals. Some find that eating or a hot drink just before going to bed interferes with sleep

rather than helps, but to a great many it is a definite aid. The most common thing to be used is a hot drink of some sort. Needless to say tea or coffee is not the most desirable drink at that time because both of them contain a drug which is a definite stimulant to the brain, and that is why coffee keeps so many people awake. Contrary to a rather common opinion, cocoa or chocolate contains a similar drug, and therefore, to many people is not an aid in getting to sleep. This is very largely a question of individuals; there are some people who can go to sleep after a cup of coffee without any difficulty. Of course, there is the psychological effect. If one has heard that coffee will keep him awake, it is very likely that it may do so.

Then many people go to bed with the fear that they are not going to go to sleep, that they are going to have a tremendous fight to get to sleep, and they get themselves all worked up for the great struggle. Of course that is exactly the wrong attitude to take in order to go to sleep. If a person can go to bed with a feeling of indifference as to whether he gets to sleep or not, he will probably drop off to sleep at once. All too frequently the individual becomes tense and upset because he does not fall asleep at once. He starts worrying about the effects that will be produced from this lack of sleep. It should be kept in mind

that the person who relaxes thoroughly, both physically and mentally, when in bed will get a great deal of rest whether he sleeps or not. Hence, it is not so important to get to sleep as soon as one gets to bed. It is important to lie in a completely relaxed condition. No one need worry because it takes him quite a time to get to sleep. In getting into bed and preparing for sleep, one should get into a suitable mental attitude. He should put away all cares, all worries and all problems. After having relaxed mentally, he should relax physically. This can often be done by getting into a comfortable position in bed, and then starting in with one arm, move it about until it is in a thoroughly comfortable and relaxed position, then start in with the other arm and do the same, continue with the other parts of the body until there is absolutely no feeling of tension and the body is completely relaxed and comfortable.

Not only is it desirable to put aside all unpleasant topics, but all topics which tend to be of any great emotional significance retard sleep. Hence, one should think of nothing. This is perhaps not entirely feasible, but it may be possible to think of a big black void and to keep the mind directed in that way so that no upsetting ideas crowd in. One must not fight actively against ideas that come up, but should rather take the

general attitude of mind that he is not concerned whether he gets to sleep or not, and that the important thing is to get thoroughly relaxed and rested. The methods suggested are not easy to acquire, but they are worth trying, and a great many persons will find that after practising them for a while they are able to sleep quite well. Reading of a not too stimulating character often gets one into the proper frame of mind to go to sleep quickly. One objection to it is that the habit of reading in bed once formed is difficult to break.

In general, the use of drugs or hypnotics is not desirable. No individual should use them without the advice of a physician. In certain cases of insomnia a physician may wish to give the patient a sleeping medicine for a few nights to get him accustomed to sleeping, but a continued use of such drugs under ordinary conditions is not a satisfactory way of dealing with the problem. It is merely a temporary method which is likely to cause still more trouble later on.

CHAPTER XII

TOBACCO AND ALCOHOL

THE use of tobacco and alcohol may influence the mental health of the individual. In discussing this, there are several points to be kept in mind. There is an old saying that one man's meat is another man's poison. It is unquestionably true that a given drug may affect different individuals in an entirely different fashion. For example: Morphine ordinarily relieves pain and quiets the individual, but some persons develop a marked excitement when given the usual dose of this drug. It is also true that individuals may have an idiosyncrasy to certain articles of diet. Some persons cannot eat strawberries or shell-fish, but this does not mean that these foods should be prohibited for all persons.

The effect of small and large doses of a drug may be exactly the opposite. Many drugs which stimulate in small doses may be narcotics in large doses. For example: Caffeine in small doses diminishes fatigue and increases capacity for work, both mental and physical; in large

doses it produces a decrease of ability to do work and so may be considered to increase fatigue. If a drug when given is mixed with other substances it may have a different effect and some of the results may not be due to the drug itself but to the other substances given with it. So in alcoholic beverages, it has been noted that the effect of giving wine or whiskey is different from that of giving pure alcohol diluted to the same strength. The dilution of the drug also plays an important part. Alcohol in concentrated form is much more intoxicating and more likely to harm the tissues than is the same amount of alcohol in dilute form.

There is a great deal of misunderstanding about the use of the terms stimulant and depressant. The terms are sometimes used with the implication that everything which stimulates or depresses is necessarily bad. This is not true. The two points most commonly emphasized in physical hygiene are for the individual to breathe fresh air and drink plenty of water, yet it is possible to produce convulsions by drinking too much water or breathing too deeply. Because too much of a thing is harmful, it does not follow that the moderate use is also harmful. All of these points should be kept in mind in discussing the use of tobacco and alcohol, because they

show the type of fallacious reasoning which is sometimes used in discussions of these problems.

It is obviously difficult to secure a logical, non-emotional discussion of these questions. Most individuals have settled them on an emotional basis and are quite impervious to logic. The individual who likes to smoke or drink is prone to rationalization and to seize upon all sorts of defective reasons to prove that it is all right for him to do what he wants to do. Nor is there any more logic found in the usual arguments of the individual who has the emotionally acquired viewpoint that there is something intrinsically immoral in smoking or drinking. Volumes might be written in a discussion of these problems which would merely repeat what has already been said many times. There are, however, a few facts which concern the effect of these habits on the individual that seem worth mentioning.

Tobacco contains nicotine, which is a deadly poison, one drop being sufficient to kill a small animal. In smoking, however, a great deal of the nicotine is volatilized and is not absorbed by the smoker. Tobacco also contains various aromatic oils and irritating substances which may have a harmful effect on the individual. The propaganda against tobacco has been carried to absurd

extremes by many of its opponents and the harmful effects have been greatly exaggerated. In Holland, for example, where small boys smoke cigars, there is little evidence that their health or growth is affected by the habit. The effect of tobacco on an individual who is not healthy or normal is quite different from that on the normal individual, and there should be no confusion about this point. Usually the former should leave it alone. There is no doubt that excessive smoking is harmful. It tends to irritate the throat and lungs and is particularly bad on the circulatory system and the kidneys. Excessive smoking should be regarded as a neurotic habit like nail-biting, thumb-sucking, and similar habits, and it should be treated as such.

The immediate effect of a few puffs of a cigarette is to raise the blood pressure slightly; hence it commonly has a stimulating effect and produces a feeling of wellbeing. This also explains why many individuals throw a cigarette away after having taken a few puffs. They have already secured the maximum physiological effect. To some individuals smoking produces a relief of tension. In extreme cases where there may be marked emotional tension the individual lights one cigarette after another without understanding quite why he has done so. He feels lost

without tobacco. As mentioned before, such a use of tobacco represents an attempt on the part of the individual to secure relief from extreme emotional tension. Because it partially achieves this result, the individual continues the habit. The treatment of such a condition is not to deprive the individual of tobacco, but to determine the cause of the emotional tension and deal with it. It seems fair to state that a moderate indulgence in tobacco by healthy adults will have no appreciable effects on the physical health. Used in moderation it may, in some cases, secure a release of emotional tension and be of value to the individual for that reason.

Much that has been said concerning tobacco may also be said of alcohol. Unquestionably the effects of over-indulgence are harmful both to the individual and to society. Whether such effects are sufficient to warrant prohibiting its use entirely is a question which will not be discussed, since it leads into so many fields that no one volume could cover the ground adequately. What is attempted here is merely to bring out a few points with regard to the effect of alcohol upon the individual.

To quote Dodge and Benedict: "The naive assumptions that increased physiological action is always organically beneficent as well as that

depression of physiological action is organically disadvantageous are merely popular prejudices."

Alcohol is really a narcotic and not a stimulant. It depresses both the higher and lower nerve centers. This is shown by the delay of such simple nervous reactions as the knee jerk and by the paralyzing effects on the higher controlling and inhibiting centers of the brain, resulting in the release of tendencies and impulses which have lain dormant. In small amounts alcohol may be oxidized as food and many physicians feel that it has a definite place in medicine.

Various tests have been made of the effect of alcohol on the individual's ability to do work. Under test conditions most individuals report a feeling of wellbeing and a subjective sense of doing the work quickly and accurately. As a matter of fact, however, the work is usually not done as quickly nor as accurately as without alcohol. It is plain that under such conditions alcohol does not enable the individual to do more or better work. Alcohol does, however, produce a release of inhibitions which may be good or bad. There has been a great deal written to show that certain writers, speakers, poets and artists have done their best work while under the effect of alcohol. As pointed out by Jacobson, there

are plenty of examples to indicate that in some individuals alcohol appears to release the subconscious mind and allow the individual to create artistic productions which he would otherwise be incapable of doing. Munsterberg emphasized the advantage, for some individuals, of the relief of tension and inhibitions through alcohol. It is undoubtedly true that some tense individuals, unable to relax and bothered by digestive disturbances may find that a cocktail or a glass of beer or wine at meal-time aids digestion and produces a desirable mental relaxation. It may also release inhibitions and thus allow the shy, seclusive individual to mingle with others and obtain the benefits of social contacts which he would otherwise fail to get. William James has pointed out that in certain individual cases the use of alcohol may also be desirable. Janet has shown that alcohol produces an improvement in the reactions of certain psychoneurotic individuals. Bianchi, the great Italian neurologist, in his last book, "Foundations of Mental Health," which appeared shortly before his death, emphasized the harmful effects of excessive use of alcohol, but was firmly convinced that a moderate use should not be condemned.

While it is true that there may be beneficial effects from the release of inhibitions, it is also

true that there may be many harmful results. In most of these latter cases, however, there occurs an over-indulgence in alcohol. Here we must again distinguish between the use and abuse of alcohol. However, it seems fair to say that the release of inhibitions by alcohol may be beneficial or harmful in individual cases, and that we are not entitled to do more than insist that it is a question of each particular individual and of what the effects may be in his case. Obviously, if the effects are not desirable such an individual should not use alcohol. The great problem of prohibition seems to have arisen from the fact that many individuals will not use alcohol in moderation and some are affected unfavorably even when taking small amounts. There is no evidence that the average, normal individual is harmed in any way by the use of moderate amounts of alcoholic beverages. It is true that certain unstable individuals are affected unfavorably by the use of alcohol and should leave it entirely alone. There is also no question but that the excessive use of alcohol is harmful both mentally and physically. From the standpoint of society, the question would seem to be whether society is warranted in preventing the large number of normal individuals from using alcohol as a beverage with no harmful effects to

them, in order to prevent the well recognized harmful effects which result from the intemperate use of alcohol, and its use, even in moderation, by certain unstable personalities.

Many students of human nature feel that prohibition by constitutional amendment will not and cannot work out in a satisfactory manner because of human nature being what it is. In this connection it is of interest that cases of delirium tremens have practically disappeared in Denmark, which does not enjoy the benefits of prohibition, so that the medical school of the University of Copenhagen has, for a number of years been unable to demonstrate cases of delirium tremens to their medical students. Unfortunately, in the large cities of the United States such as New York, Chicago and Boston there are more than enough cases available for such purposes.

A great deal has been said about alcohol as a racial poison. It is difficult to draw conclusions, but it is perhaps worthwhile quoting the following from Raymond Pearl in his book on "Alcohol and Longevity." "Space is lacking for a further review of the literature on moderate drinking, but the general trend of it all may be summed up in this way. In the physiological, general biological, and clinical studies which

have been made on alcohol, when the dosage is of the order of that involved in moderate drinking by human beings, there are extremely few results recorded which can be regarded as biologically deleterious. There are many results, well established by critical experimentation and observation, that indicate that small amounts of alcohol are beneficial in some biological processes. In others there simply is no detectable effect of small amounts of alcohol. All this is in the most extreme contrast to the large body of knowledge regarding the biological effects of large doses of alcohol. They are almost uniformly deleterious.

“Many worthy persons who somehow seem unable to keep separate their moral convictions and their scientific activities have taken an extreme position, wholly unwarranted by the facts, to the effect that alcohol in any quantity, however minute, is always biologically harmful. An amusing commentary upon this position is afforded by the fact that ethyl alcohol is regularly and normally present in the blood and tissues of the living body. This has been demonstrated by Maignon, Ford, Reach, Schweisheimer, and others. The amount of alcohol so present is relatively minute. But Kuhn has recently shown, using an extremely exact interferometric tech-

nique, that the increase in blood alcohol noted after the administration of a single dose of alcohol, in the form of two bottles of beer taken with a large meal, is *smaller* than that occasionally observed after the administration of carbohydrate *without* alcohol. In his experiments the former averaged 0.0033 per cent (the maximum being 0.0051 per cent, or 17 interferometer drum units), while the latter attained a maximum of 0.0057 per cent, or 19 drum units.

“Altogether, I think that Starling’s summing up of the case is entirely sound. It ‘depends upon the distinction between the use and abuse of alcohol. In moderation it is difficult to appreciate any harmful effects from its use, whereas when the temperance is abandoned and alcohol is used immoderately, its effects are evil and fraught with disaster to the individual and damage to the community.’ ”

In order to determine whether or not alcohol is a racial poison, Pearl studied the length of life of those who are teetotalers. According to him: “Those who are moderate, steady drinkers exhibit somewhat lower rates of mortality and greater expectation of life than do abstainers.” As would be expected those who used alcohol to excess showed increased rates of mortality and diminished expectation of life.

A great deal of experimental work has been done on this question, most of which shows that alcohol has certain beneficial effects upon the race. It is thought by many that it has a selective action upon the germ cells, allowing only the stronger and more healthy cells to survive. We can feel certain, therefore, that alcohol in moderate amounts has no harmful effect on the normal individual.

It has been often said that alcohol is the most important cause of mental disease, and that doing away with alcohol will largely solve the problem of mental disease. What are the facts concerning this? According to the Bureau of the Census the following statistics indicate the rôle of alcohol in mental disease. These statistics are for the year 1922, this being the last bulletin available at the time this is written. According to these figures, there were admitted to hospitals for mental disease in the United States for the first time during the year 1922, 71,676 patients, of whom 5,442 were not insane. There were, therefore, 66,234 individuals who were suffering from insanity, admitted for the first time to hospitals for mental disease during the year 1922. Of this group 2,693 were alcoholic psychoses. If this group of alcoholic psychoses is subtracted there are left 63,541 cases. Of these cases 26,537 or 41.7 per

cent were abstinent, 19,376 or 30.5 per cent were temperate, 4,756 or 7.5 per cent were intemperate and 12,872 or 20.3 per cent were recorded as unknown. It is obvious, therefore, that the number of alcoholic psychoses is comparatively small; that is to say, if they were completely done away with the problem of mental disease would be only very slightly reduced. Also if such a high percentage of patients suffering from other types of mental disease are abstinent or temperate, it is obvious that their disorder is not the result of alcohol, and unless some real evidence is present we cannot accept the idea that alcoholism in the ancestors has been the cause of the patient's disorder. One error of such reasoning is that an unstable or defective individual frequently resorts to alcohol; he then has defective or unstable offspring and these defective or unstable offspring are erroneously attributed to the alcoholic indulgences of the parent rather than to his constitutional defects and poor germ plasm.

If we look up the figures for Schizophrenia or Dementia Praecox we find that for the State of New York, for the year ending June 30, 1928, there were admitted 9,220 patients, of whom 2,519 or 27.3 per cent were cases of Dementia Praecox. We also find that since this disease tends

to come on early in life and does not result fatally in a short time that of the 48,532 patients in the state hospitals of New York on June 30, 1928, 27,875 or 57.4 per cent were cases of Dementia Praecox. This shows the enormous importance of this type of mental disorder, and since very nearly 60 per cent of all patients in hospitals for mental diseases in the country are suffering from this type of disorder, it will be seen that the solution of the problem of Dementia Praecox is the most important problem confronting psychiatry at the present time. The same statistics show that 7.6 per cent of cases of Dementia Praecox were classified as intemperate in the use of alcohol, and that in only 2.1 per cent was alcohol regarded as a causal factor in the production of this disorder. It is evident, therefore, that alcohol plays no rôle of importance in the production of Schizophrenia or Dementia Praecox and that prohibition will have little or no effect in the incidence of this disorder.

The modern view is to consider the excessive use of alcohol as symptomatic of some underlying condition. Hence the treatment is to search for this underlying cause and treat it. Alcoholism may be the first symptom of a mental disorder. Hence many a man is thought to have gone to pieces because of alcohol when alcoholism was

merely a result of his going to pieces. It is often thought to be the cause of abnormal mental states when it is only the result. This is what has led to a general overestimation of the importance of alcohol in the production of mental disease.

We also find, in the classification of principal causes of mental diseases other than heredity, among first admissions, that, including all the alcoholic psychoses, 8.7 per cent of the cases were considered to have alcohol as a cause of the mental disease. While we must admit, therefore, that excessive alcohol does produce definite mental disease, and is harmful, it is quite clear that most mental disease has no relationship whatever to alcohol, and, contrary to the views of some ardent prohibitionists, doing away with alcohol will not at all be a solution to the problem but at the most will only do away with less than 10 per cent of mental disease.

CHAPTER XIII

EVERYDAY PROBLEMS OF THE AVERAGE ADULT

FROM the mental hygiene standpoint, the individual's occupation represents an important problem. Ideally, one should have work that yields him a definite satisfaction and pleasure. However, no job is without some drawbacks and most of them have a mixture of desirable and undesirable features.

The satisfaction obtained from work depends not only on the type of work but also on the personality of the worker. One person may be content with a certain task; another may find it extremely distasteful. The problem, therefore, is to find for each individual a job that will yield him a reasonable degree of satisfaction.

Mental hygiene has concerned itself with the problem of vocational guidance since most individuals do their best work and are better adjusted if they are doing something which they enjoy. If the individual takes pride in his work and gets some satisfaction from it, he may find

his work a refuge to which he can turn in times of stress and strain. It thus becomes a safeguard against mental breakdown.

It is also true that dissatisfaction with his job may represent dissatisfaction with other phases of the individual's life. Under such circumstances, the problem is not to alter the job but to seek out and alter these other sources of disharmony. An individual in good physical health, with adequate emotional satisfaction from his marital and home life, his social contacts and his recreations, may adjust reasonably well to his work life. Let these fail him and dissatisfaction appears which may be attributed to his work.

If the individual finds himself quite dissatisfied with his job, it is well to analyze the situation to determine whether it is possible to change the individual's reaction towards this particular type of work, and if not, to try to determine what work is suited for him.

Many women find housework and care of the children an unpleasant and uninteresting task. If they can be made to see that caring for their children is a most important piece of work, and if they can be made to realize that it requires skill, knowledge and experience, it is possible that they will become interested and will feel that efficient and capable management of this job

will satisfy their own emotional needs and enhance their feelings of self-respect and importance in the community.

In general, the work recommended for an individual depends not only on his abilities, but on his interests as well. While this latter point should be strongly emphasized, it is well to bear in mind that individuals have achieved great fame for their accomplishments although they had to be forced to do the work and sought to evade it. Beethoven was frequently whipped by his father to force him to practice and MacDowell was guilty of hiring one of his brothers to practice for him, so that his parents would suppose that he was actually at the piano when they heard someone playing.

Many times an individual may like his work at one time and dislike it at another. Some persons dislike any new job, but like it once they have become accustomed to it. Or the converse of this situation may occur; a new job may prove highly stimulating, but as soon as the individual becomes accustomed to it, he finds it becoming tiresome and boring.

It is well to recognize that the possibilities of vocational guidance are quite limited at present. Certain definite things can be determined quite accurately, many others are still beyond the

limits of our present tests but it is possible that some day they will be subject to determination.

Present tests will determine the mechanical ability, manual dexterity, reaction time, intellectual level, ability to learn and mental alertness. There have been developed many other techniques for determining less simple traits. It is still too early to pass final judgment on the value of many of these tests, but new and valuable tests are being constantly developed.

There are still many qualities of the personality such as sociability, perseverance, and honesty, which are of great importance in determining success in one's work but which can be determined only partially by tests. A careful history of the individual's life with the evaluation of his past record and the common-sense judgment of a skilled and experienced observer is still often the best method of determining a man's abilities and the probabilities of his succeeding at a given job.

Vocational tests are by no means infallible. Certain capacities may compensate for defects so that an individual achieves a success not predictable by tests. If Demosthenes had been examined for vocational aptitudes by a modern clinic, is it likely that elocution would have been recommended for his life work when tests showed a marked speech defect? Under similar circum-

stances, is it not likely that Beethoven would have been told that since both of his parents suffered from oto-sclerosis, an inherited type of deafness, he was practically certain to develop it and, for that reason, music should not be his life work?

The danger is that either vocational tests will be taken as divine pronouncements which cannot be questioned, or that they may be completely rejected as of no value in any case. The truth, as in many cases, lies halfway between these two extremes. Vocational tests have come to stay, and their value will increase as more and better techniques are developed. Properly used by competent examiners, they will yield important data, but like other tests they are not and never will be one hundred per cent perfect.

It is also desirable that an individual should not have his entire interest in his work. He should have outside or balancing interests. All work and no play is not a good motto from the standpoint of mental hygiene. The cultivation of certain hobbies or interests as distant as possible from one's ordinary work is a desirable thing, and they should, if possible, supplement one's occupation. Golf is, therefore, a very desirable recreation for a man working in an office; for the average postman it is probably not the ideal

recreation. One may say that the individual working indoors and getting little exercise should cultivate an interest in golf, tennis, horseback-riding or any similar activity that gets him outdoors. Some individuals find that walking is a form of recreation, and enjoy taking long tramps. The important thing is that the individual should enjoy whatever it is that he is doing. The man who plays golf because his doctor has told him to, and who assumes the same attitude toward it that he does towards taking a dose of medicine will not get much benefit from it. It would be better for him to seek some other type of recreation. So it should be emphasized that the individual should find something that he likes to do, whether it is dancing, playing the piano, going to the theatre, golf or anything else, as long as it takes his mind off his work, and thoroughly relaxes him. A great many persons, as they grow older, forget how to play. They feel that they are grown up and should put aside childish habits. It may be questioned whether such so-called adult life is superior to that of the child in all respects. Certainly the individual who remains young in his outlook to life, who does not become set in his ways and who retains a plasticity and interest in life and an ability to

play has retained some of the most important and desirable traits which will contribute to his health and happiness.

It is desirable to have a wide circle of interests and to keep thinking on new subjects. One should never become too old to learn or to be interested in new topics. Too many persons, on reaching middle age, have settled down to a series of formulations which remain unchanged for the rest of their lives. Their minds have become set and crystallized, they have stopped any real thinking and they are already half dead.

It is well to remember that the mind, as well as the body, requires exercise and discipline if it is to be kept in a healthy and efficient state. There is a sound basis for the fear of getting "soft" by not using a function.

It is wise to choose companions who are mentally stimulating and call out the best that is in one. Many a mediocre person has risen to high positions and accomplished more than appeared possible because of this. After all, this is one of the most important characteristics of our best educational institutions and serves to distinguish them from those that are merely average.

A sense of humor is a most important aid to mental health. As Burnham puts it: "One's sense of humor has an antitoxin function. It is the great

mental disinfectant. A sense of humor is the sovereign prophylactic against the feeling of inferiority."

One difficulty which confronts most individuals is the fact that they are continually making mistakes. The individual who is rather sensitive and who may perhaps already possess certain feelings of inferiority and insecurity, often has a tendency to shirk responsibility because of the fear of making mistakes. Theodore Roosevelt once remarked that the only man who never makes a mistake is the man who never does anything. This is an excellent philosophy to follow. However unpleasant or disagreeable it may be to face mistakes and errors, it is well to realize that any one who is accomplishing anything in this world will continue to make mistakes. There are two different attitudes which may be taken with regard to mistakes. A person may feel extremely upset about it and brood a great deal and may feel that he should not try to accomplish anything further because he might make a mistake. On the other hand, the individual may realize that, having made a mistake, he has learned much from it, that he is a wiser and more capable person than he was before he made it and that he is better equipped to deal with life than he ever was before. This latter attitude is the desirable

one. If the individual can look upon his mistakes as something by which he learns and does not develop a morbid sensitiveness toward the whole subject, he will have adopted an attitude toward life that will be of great value to him.

Worry and fear are conditions with which most persons have to deal. Under certain circumstances they are protective mechanisms which stimulate the individual to further endeavors and thus enable him to free himself from the conditions which produce the fear or worry. In many cases, however, worry and fear seem to come on without adequate cause and often become a habit with the individual. Such reactions are quite unhealthy and accomplish nothing except to drain the individual's energy and to produce an unpleasant state of tension. Volumes have been written on the causes of worry, and everything from endocrine imbalance to a mother fixation has been shown to be the cause. Without professing to solve the problem, it may be pointed out that a great many times one does not understand adequately the cause of his worry, since he has not completely faced the problem.

In the background of his mind are vague feelings of worry, tension and apprehension which the individual does not understand and does not know how to overcome. In many cases a frank

facing of the situation and an attempt to deal with it in an adequate way prove sufficient. It does very little good to point out to the individual that a certain fear is illogical and that there is no adequate reason for it. A great many times he recognizes this fact, but still finds himself unable to stop worrying. In such cases the going over the situation in detail may demonstrate to the individual certain facts which previously had not been understood. Gradually there may come a realization of how the whole thing has come about, and with this understanding may come the mastery over the feeling; it has now lost its mysterious force and its ability to dominate him.

This method of dealing with the situation requires the aid of another person, and although in some cases any person with common sense and understanding may serve the purpose, it is apparent that an individual with psychiatric training is the one most fitted and most likely to achieve the desired result. The individual, himself, commonly has a wrong perspective to his problems. He is like an individual climbing a mountain; when half-way up he sees a peak which he thinks is the top of the mountain, but when he gets to it he finds that there is another peak beyond. He is too near to the mountain to get the right perspective and imagines that a minor peak is the

most important one. An individual standing at a distance and viewing the whole situation sees the mountain in its proper perspective.

In the same way an individual is often too close to his own problems to see them in their proper perspective. Certain minor points are greatly exaggerated and emphasized. What he requires is the help of someone who, as it were, is detached and standing at a distance and can, therefore, view the whole problem in a disinterested and impersonal way and see it in its proper perspective. The development of various nervous conditions may represent a method of solving the conflicts of life. It is an inferior and unsatisfactory way but it is a solution. This was shown quite clearly during the war where a large number of individuals, faced with the insoluble conflict of trying to get away from an upsetting and dangerous situation, and still satisfy the other tendencies of their personality, developed a war neurosis which served the useful purpose of satisfying both sides of the conflict. It got the individual out of danger, and at the same time preserved his feeling of self-respect, since feeling himself an invalid, there was no necessity of returning to the front. An invalid reaction is frequently a method of dominating the environment and securing prestige, attention and sympathy. The individual who fails

to accomplish what he would like to may also take refuge in complaints of ill health. It is as if he said: "With all my handicaps of a physical nature, I have accomplished this much. Although this is only an average degree of accomplishment, I am really of much more than average ability because if it were not for these handicaps I would have accomplished infinitely more." Invalidism may serve as a means of dominating the environment so that both children and adults may control the household by such a method.

All such methods are undesirable. It is much better for the individual to understand himself and to learn to live within his limitations. It is, of course, obvious that some individuals are too easily discouraged and require no such advice. They imagine their limitations are much greater than they actually are. If, however, the individual can take careful stock of his strong and weak traits and secure the advice and help of someone qualified for this purpose, he can perhaps decide what things are possible for him to accomplish and what are impossible. It is better for him to resign himself to an acceptance of his limitations than to wear himself out striving for the impossible. Let him concentrate his energies on the things that he can do and do them in the best possible manner. Many rather inadequate indi-

viduals have learned this lesson and have obtained the best possible adjustment to life by such insight.

Janet has described this latter type of individual in the following passage: "Mental diseases are not always fatal affairs whose germ one carries in him and cannot avoid. They depend to a great extent on the life the subject lives and on the situation in which he is placed. Many persons have received through heredity a very weak mental constitution and would have succumbed if fate had not brought them a tranquil and easy life. Better still, there are subjects of that kind who are more or less aware of their weakness and who themselves habitually create an environment for their own use. They know how to find humble employment that demands neither great effort nor dangerous initiative. The ministries and the large government offices are often retreats for people who need a life ruled by superiors, without hard knocks and without responsibilities. They do not marry, they have no mistress, no children, they visit few persons, and they pay enormous attention to the choice of the rare individuals whom they permit to approach them: they live alone as much as possible in order to have no concessions to make. They spend little even when they are rich; they do not engage in any

business, or enter into rivalry with anyone. Their precautions, their silence, for they know how to be silent about their own affairs, result in their being seldom exposed to attack. Moreover, they assume the appearance of not seeing or feeling evil and hide their heads like ostriches. If it is necessary, they stand attack; 'they turn their backs and let nails be driven in their shoulders' rather than fight. They know how to evade orders and requests. 'When you jostle them they give way, they retreat into their shells or slip between your fingers and no one can affect them.' The public calls them egoists and cowards. They are perhaps wise men."

CHAPTER XIV

SEX AND MARRIAGE

SEX is one of the strongest instincts. Unless it were strong, the human race would have ceased to exist long before this. The strength of the sex instinct, like that of other instincts, varies enormously. In some individuals there appears to be little or no sex drive, and the individual not only has no difficulty in controlling the tendency but apparently never has any desire to give it expression. In others, there is a very strong sex drive with an excessive indulgence or marked conflict. While the effects of early environment may serve to stimulate or repress the sex instinct, it does not seem that such an explanation alone is sufficient to account for the tremendous differences which one encounters.

There are undoubtedly constitutional factors which explain much of this difference. The result from either cause is that there exist wide variations in the sex instinct. We also find that it is often difficult for a person to realize that all other individuals are not constituted exactly as he is.

This is particularly true with regard to sex. The undersexed individual, having little drive, experiences but little difficulty in controlling this tendency. Seeing many others who do have difficulty in dealing with the problem, he is likely to assume that he has unusual powers of self-control while the others are lacking in this respect, whereas, were he to have the same degree of sex drive, he would have as much or perhaps more trouble in controlling it. Or else he is likely to conclude that anyone can easily control his sex tendencies and that no one need have any trouble in this respect if he will only use a little will power.

At the other extreme is the oversexed individual who imagines that sex occupies the greater part of every person's interest and who believes that anyone who denies it is simply lying. Tremendously preoccupied with sex and having great difficulty in conforming to conventional standards he presumes that everyone else has the same degree of difficulty. It is important to realize that we have such marked variations and that the problem is much more difficult because of this fact.

Certain questions are often asked : What is the normal sex life? Is continence normal? Should sex relation occur only for procreation? Are there

definitely beneficial or harmful effects from sex indulgence? and many similar questions.

The answers given will depend on many points and it will be difficult to evolve any universal formulae. All our studies so far have pointed out that the development of a strong heterosexual drive is a perfectly healthy sign and that the moderate indulgence of this instinct is a perfectly normal, natural and healthy act.

Again it is necessary to point out the great variation in different individuals and to insist that what may be a satisfactory solution to one person will be quite the opposite to another.

For those with little sex drive, continence may be an ideal type of life. For those with a strong sex drive, it is quite a different question.

It is of some interest that a study of girls committed to correctional institutions because of promiscuous sex behavior indicates that many of them are not highly sexed, in fact, are quite frigid and derive no pleasure from the sex act. In such cases, sex practices may be allowed in return for attention, companionship and financial gains.

Sex is a fairly universal source of conflict. Since society at present demands a tremendous suppression of the instinct and only allows its expression under very special conditions, it is obvious that highly sexed individuals or moderately sexed

persons who are unstable and incapable of enduring much mental conflict are likely to have difficulty concerning this topic. On the one hand the instinct is demanding expression, on the other hand society is demanding complete repression outside of marriage.

It is not to be wondered at that a study of mental disease discloses sex as an extremely common source of conflict. It is also true that many individuals are extremely sensitized to the whole subject and have very distorted ideas. Many of the books written to give information concerning sex are worthless or even harmful. Those which are written in an extremely religious and moral strain often result in frightening and upsetting individuals and causing them to worry still more on the topic instead of getting straightened out.

At different times and among different races, society has tried different ways of dealing with the problem of sex. The tendency of modern civilization has been to adopt an extremely repressive attitude, and influenced by certain religious teachings, to regard sex as something debasing and intrinsically immoral. Fortunately the present trend is toward an attitude of frankness and a tendency to deal with the whole problem quite openly. Such an attitude on the part of society should aid materially in the solution of

this problem. There is, of course, no simple solution to it. There is always bound to be conflict and difficulty concerning the sex impulse. The amount of this conflict can be lessened and abnormal sensitization to the whole topic prevented by dealing with the problem openly.

The tremendous repressive attitude towards sex has also had another effect. It has caused individuals to attach extreme importance to the whole topic and has resulted in increasing the importance of sex rather than decreasing it. Attaching such extreme importance to the whole problem is unwise. Sex is not the most important thing in life, and maladjustment with regard to the sex life is not the greatest crime than can be committed.

Mead has shown how a different attitude with regard to sex, but that the majority of persons fail conflict. While she does not advocate that Western civilization should adopt the sex standards of the Samoans, she does point out that something may be learned from them. Apparently there is little turmoil at puberty among the Samoans, and the whole tendency is to make life less exacting and demanding. The inferior individual is encouraged and helped, whereas the superior individual is kept back. Certain things result from such a plan—life is less intense; the Samoans play for

lower stakes. Romantic love is almost unknown. On the other hand, the individual learns the facts of life at a comparatively early age. There is no sensitization to such topics as sex, the amount of conflict is greatly lessened and neuroses and psychoses are quite rare.

The problem of sex education has been dealt with in a previous chapter. It remains to be pointed out that the average, normal, healthy individual is almost certain to have conflict in trying to conform to the demands of society. The more sensitive he is, the more important he feels it to be to accept the customs of the group, the greater will be the conflict. The majority of individuals are unable to conform completely to the conventional standards. This is shown by every study of the sex life of groups of individuals that has been made. It may be well, therefore, to realize that there may be certain ideals with regard to sex, but that the majority of persons fail to attain these ideals. From the standpoint of mental health it is desirable for these individuals to realize that such failure is extremely common and does not indicate that they are abnormal or different from the average. Such a realization will often decrease the amount of conflict and will not cause the individual to live a more unrestrained sex life. It is quite proper to teach

certain ideals with regard to sex but there should be more toleration and sympathetic understanding toward those who find themselves unable to conform completely to these ideals. It is by no means certain that our present standards with regard to sex may not be modified or improved.

While there is no simple, easy solution to the problem of sex, there are a number of points worth emphasizing.

| In sublimation, we have the release of creative energy into desirable social channels. It is possible to utilize some of the energy and emotion, which might be used up in crude physiological sex activity, in other activities that will yield emotional satisfaction and produce socially desirable achievements.

The individual who is able to keep busy and to find other outlets to his emotional life will also find less trouble in dealing with this problem. He may keep his mind so occupied and so full of interesting things that there is no room for anything else.

It is well to use up physical energy. Particularly in the young healthy person it is desirable to get tired out physically. Sex problems will cause much less trouble under such conditions.

Difficulty in sex adjustment may arise on the basis of exceedingly complex and complicated

factors. Under such conditions, a frank discussion of the entire situation with a competent psychiatrist may result in a solution of the difficulty.

Finally, it is well to remember that mental conflict may produce desirable as well as undesirable results and that the highest type of personality is the one which has attained a reasonable control of the emotions instead of being ruled by them. Such control only comes with effort and striving.

Marriage represents society's method of dealing with the sex function. Our modern civilization generally accepts the principle of monogamous marriage. It also accepts the family as the unit of society and the responsibility of the parents for the education and training of their children. It may be questioned whether our present ideals with regard to marriage are completely satisfactory, and it appears there is some room for improvement. However, marriage as an institution seems likely to endure. Volumes have been written on this question, and the purpose of this chapter is merely to emphasize a few special points.

It may be pointed out that society has failed to adopt any adequate plan to train persons for marriage and to make them capable of having a normal and satisfactory married life. The average

romantic novel pictures marriage as a state of eternal bliss and overemphasizes certain aspects of marriage. It is well to remember that marriage usually complicates an individual's existence instead of simplifying it, and that to the maladjusted individual marriage is seldom a satisfactory solution of his problems. The individual who cannot adjust to life unmarried can seldom adjust to life when married. Marriage usually means a more complicated life, an increase in responsibilities and as Myerson puts it, "a graceful yielding of the ego." It means that the individual must learn to conform and adapt himself to living in close relationship with another person. All sorts of frictions and difficulties will necessarily develop, and will demand the highest degree of intelligence and the greatest amount of tolerance if the marriage is to endure. A successful marriage usually demands a great deal of effort on the part of both persons involved. The individual who enters into marriage with an expectation that his problems will be solved, and that in some magical way life will become easier, is usually doomed to disappointment. As Adolf Myer puts it, "Marriage is the supreme test of maturity," and a successful marriage requires that both members shall have attained a suitable adult type of emotional life. It is doubtless wise that many individuals do

not marry. Not every person is suited for marriage. Of the various causes for dissatisfaction with married life there can be no doubt that disharmony with regard to the sex life is the most important and most frequent cause. There are an infinite number of reasons for this. One common cause is the lack of knowledge concerning sex. When society spends so much time training individuals to adapt and adjust in other ways, it seems as if some plan could be devised for giving suitable instruction concerning some of the fundamental facts of the sex life. Frigidity on the part of the wife is often the result of a lack of understanding on the part of the husband. In other cases it is the result of false standards and training. The individual who is brought up with the attitude that sex is something intrinsically immoral and degrading has not received the best training to adjust to marriage. Fear of becoming pregnant may also cause frigidity.

Another common cause of marital dissatisfaction is the dominance of one partner over the other. There is frequently an attempt to dominate on the part of both husband and wife. This usually results in the more or less tacit acceptance of one individual as the dominant partner by the other. Prior to the wave of feminism it was generally accepted that the husband should dominate and

control the household. At present there seems to be much more an attitude of independence on the part of the wife although very little increase of her tendency to dominate. It is true that many a wife has controlled her husband in such a clever way that he has never realized that he was being controlled. It is also true that some men desire to be dominated and controlled by their wives. Accordingly pity may be wasted on some of the henpecked husbands who are thought to be unhappy because of such dominating wives. The personality of the two members of a marriage will doubtless determine just what this relationship should be, but in general, it may be said that a respect for the rights of the other and a willingness to concede the greatest degree of liberty to each other rather than the desire to control is the best way of attaining a happy marriage. In order to avoid quarrels and arguments and much marital disharmony, one very happily married woman explained that she always treated her husband as politely as she would a perfect stranger, and that she was sure if other women would do the same, most quarrels and arguments could be avoided.

Finances represent another common source of difficulty. Few persons have as much money as they would like to have. Practically every indi-

vidual feels the need of more than he already has. In marriage the apportioning of money to various needs represents an easy source of argument. Here again the attitude of tolerance and understanding, and the spirit of good sportsmanship is absolutely necessary. Excluding cases of extreme want, it is doubtful whether more money makes persons really any happier. Usually one's desires increase as does one's purse, and they usually manage to increase slightly in advance of one's purse, so that more money seldom represents a real solution to the problem. The individuals who cannot adjust well on a moderate income seldom do any better if the income is increased.

The problem of divorce looms up as a topic of importance from a mental hygiene standpoint. What does the great increase of divorces really mean? Unquestionably in many cases it means that individuals who cannot get along together, and who are unsuited to each other, have decided that it is better to part. If such is really the case, it may represent a very desirable attitude. On the other hand, divorce unquestionably occurs many times when it might be prevented. It is felt that the three problems particularly emphasized in the discussion of marriage represent three of the commonest reasons for divorces. If

a couple cannot get along well together, they may find that a frank discussion of the whole situation with a competent psychiatrist will bring out certain reasons for this disharmony and that some of these factors are open to change. Obviously this is not so in all cases, but undoubtedly a number of unhappy marriages could be made into reasonably satisfactory ones by such a method. Where there are no children there seems to be little reason to object to divorce, assuming that it will not establish other conflicts; for example, the individual whose religion forbids divorce will be establishing a mental conflict if he should secure one, so that it would represent quite a different problem from the individual who has no such religious scruples on the subject. Where there are children it would seem that the rights of the children should take precedence over those of the parents. On the other hand it may be pointed out that an extremely disharmonious home is not necessarily superior to the home in which there is only one parent.

It is often argued that marriage is a more healthy way for the individual to live, and that statistics show that married men live longer than do single men. An old joke on the subject is that they do not really live longer, that it only seems longer. It is probably true that marriage in our

present state of society does represent a more normal type of life. The fact that statistics show that married men live longer may be interpreted in two ways. It may also mean that many abnormal and unhealthy individuals do not marry so that the married group simply represent the more normal group.

During recent years there has been considerable change in the attitude of society with regard to sex and marriage. In general, there has been a loosening of restraint and a more liberal attitude. Few movements are entirely good or bad, and the recent one resulting in more liberal views concerning sex and marriage has been no exception. One excellent result, however, has been that people are beginning to face these problems frankly and intelligently. The younger generation has shocked many by certain extreme views but it has not been afraid to look facts in the face. Such an attitude is infinitely more healthy than the previous one of refusing to see that there was a problem.

The question of birth control is of interest from the standpoint of mental hygiene. Properly used, birth control should be a definite aid to mental health and marital happiness. The birth control movement is misinterpreted by many individuals as a plea for childless families and the evasion

of responsibilities. This is not the desire of those back of this movement, and although certain individuals may utilize knowledge concerning birth control in an undesirable manner this is not enough to offset its advantages. It would seem that a limitation of the number of children together with a proper spacing of the interval between births is a desirable thing. The birth of a child should not be largely a question of chance or accident. Children should be planned for and should be desired. The birth of unwanted children has resulted disastrously in many cases. Too many children impose a stress and strain on the parents as well as the children. The physical burden on the mother of frequent and repeated pregnancies and the mental strain on both parents may definitely affect their mental health and disrupt what would otherwise be a satisfactory marriage. It is sometimes argued that married persons may limit the number of children merely by practising continence. This is true, and continence is utilized for that purpose by some couples. It does not seem, however, that continence is to be expected nor that it should be demanded of the average married couple. Such a relationship in most cases imposes considerable emotional tension on the part of both husband

and wife, and there seems to be no adequate reason for demanding it. As has been said with regard to other points, the religious and moral viewpoints of the individual may affect this question. The individual who practises birth control when he has religious or moral scruples against it is simply substituting one conflict for another, and the beneficial effects will not be the same as if no such scruple existed. In fact, the individual may substitute a greater conflict for a lesser one, as shown by the fact that there are cases on record of individuals who have broken down mentally and even developed actual psychoses because of conflicts of this sort.

There can be no doubt that the average normal couple wish children and that children are usually necessary to a really satisfactory marriage. It is not possible to give specific advice as to the number of children a family should have, as so many factors enter into such a situation. As has been mentioned elsewhere, if any given stock is to increase there must be an average of not less than four children per family. Therefore it is important that our better class of citizens should have families of at least four children. As to how many more they should have would depend upon the health of the mother, the family finances and

many other conditions. It would also seem desirable to have smaller families among other groups in which the stock is not so desirable or where there is a question of inheritance of physical or mental defect.

CHAPTER XV

MORAL AND SPIRITUAL VALUES IN MENTAL HEALTH

EVERY thinking individual tries at some time or other to work out his relationship to the universe. To many this is an extremely real and vital topic, to others it seems more an academic question. However, most individuals develop a set of beliefs, a philosophy of life and a standard of values by which they are profoundly affected. As Campbell puts it: "The millions of men wiped out in the world war were not destroyed by famine or pestilence, but because of the inadequacy of the complex mechanisms which determine a man's beliefs and his behavior. Man's beliefs are thus seen to be not only a question of happiness or unhappiness—they may involve the issue of life or death for the individual and for the group."

The common tendency is for the individual to accept the standards of his group. Brought up in a certain religious atmosphere, he tends to accept that particular type of religious formulation. The same is true with regard to political belief and

other attitudes. The individual of stable personality, who is well adjusted to his environment, is likely to accept the standards of his group without close scrutiny. Being well adjusted himself, he sees little need of change. It is the individual who is maladjusted, who finds himself unable to adapt to the customs and opinions of his own group, who is most likely to question such group opinions. It is obvious, therefore, that the individual who rebels violently against group opinions and teachings is much more often an inadequate and maladjusted personality than one of such high capacities that he can rise above the group teaching. The so-called healthy, stable-minded individual more commonly tends to feel that such matters are beyond his power to settle, and that it is much simpler to accept one of the standard doctrines which he finds already available than it is to try to work out the whole problem for himself. As has been mentioned elsewhere, the individual when confronted with unpleasant situations is likely to close his eyes to them and to refuse to see them. So the death of a friend may be too difficult a problem for an individual to face. He may, accordingly, seek out some method of dealing with the situation which makes it more endurable. Unquestionably one of the great appeals of orthodox religion is its claim to deal with such prob-

lems in a satisfying manner. It allows many individuals to face situations which would otherwise be unendurable to them. If the belief in a future life where wrongs are righted, and where loved ones are seen again, makes the troubles of this existence endurable to an individual, such a belief may have a helpful integrating effect on the individual's life and may make him a better and happier person. Religion may, on the other hand, have exactly the opposite effect. In many cases religious beliefs may serve to bring out various conflicts in the individual's life and prevent his adjusting in a satisfactory manner. In certain cases the religious and moral issues forced upon the individual may cause great conflict and even produce a mental breakdown. It is not without reason that sex and religion are the two most common subjects for delusions among cases of mental disease.

Certain types of religion seem fitted to the needs of certain individuals, while other types are more satisfying to the needs of others. Under such circumstances, it is of interest to study the lives of various philosophers and religious leaders to determine why a particular set of beliefs were satisfying to them. Some individuals get along quite satisfactorily with no settled religious beliefs. They may find an attitude of skep-

ticism towards all religious formulations most satisfying to their particular personalities. However, few persons are content with purely negative attitudes, and this is one reason why religion has such a universal appeal; it gives one a positive formulation of things.

The viewpoints of religion and of mental hygiene are not necessarily the same. According to Burnham, mental hygiene is concerned with "normal, healthful development, and the acquisition of healthful activity, physical and mental." Patton states that "sanity is a successful, and insanity an unsuccessful attempt to adjust life to reality," and he further adds that "the final test of the sound mind implies sane conduct, not merely intelligent thinking." Mental hygiene has, therefore, become much more than the prevention of mental disease or mental defect. It takes cognizance of an individual's strong and weak points and of his environment, and then endeavors to develop a harmony of control, and a harmony between the individual and his environment. It tries to develop qualities in the individual's personality that will best help him to adjust himself to his environment, or it may teach him ways of modifying or controlling his environment in order that he may properly adjust to it. It is not always a question of modifying the in-

dividual, it may be a question of modifying the environment.

Mental hygiene emphasizes the integration of the personality so that the various parts function harmoniously together as a unit. It sees the individual who is torn by opposing tendencies as a disintegrated individual. Such individuals are seldom efficient or happy. It is obvious that integration is a continuous process, that new integrations must be made frequently and that they are made only after a certain amount of conflict and struggle. The successful solution of conflict, therefore, means a higher integration of the personality, an unsuccessful solution means the development of some degree of disintegration.

Health may not be the highest value in life. If a man with heart disease toils on at a job which is physically exhausting, it may be very wrong from the standpoint of hygiene; from the standpoint of religion it may be very praiseworthy, if it is the only way by which he can support his family. During the war, the psychiatrist's task was to help soldiers resolve their conflicts so that they would be able to resume their occupation of killing other men. The psychiatrist might feel that war is seldom a satisfactory way of settling disputes and that better methods could and should be devised. A most extreme example is

when the psychiatrist is called upon to cure a convicted murderer in order that he may be electrocuted, since the law stipulates that an insane person may not be punished.

There are certain contributions that psychiatry can make to religion. It can point out that the various methods of dealing with mental conflict mentioned in a previous chapter still continue to operate where religion is concerned.

All too frequently persons try to solve their own problems by solving those of others. By projection, they see a world filled with conflict. Their own weaknesses and defects are seen in others. They feel the need of changing the lives of others instead of their own.

A recent study by McCartney shows that "out of 203 missionaries in one single mission invalidated back to the home land from China, 25 per cent were sent back to America because of 'neurasthenia,' 8.8 per cent for 'insanity,' and 2.9 per cent because of other neuroses; in other words, a total of 36.7 per cent of all the cases of 'serious' illness in this mission group were suffering from psychopathological conditions. These figures may be taken as representative of all missionary groups in the Orient, and what is true of the Far East may also be considered true

of other foreign-mission fields, such as Africa and the Near East."

McCartney further points out that climate, food and economic conditions have nothing to do with this high percentage of mental breakdowns, but that many of these individuals were already unstable and had taken up missionary work as a means of solving their own conflicts and compensating for their own feelings of inferiority.

Again it may be pointed out that many persons are very intolerant and bigoted in their religious views because unconsciously they recognize how weak their position is, and so defend it with the greatest zeal. If any criticism were allowed the entire structure of their religious formulations would crumble up and disintegrate. Therefore, they must assume this very superior and unyielding attitude as a defense mechanism. Psychiatry is also prone to question whether "the desire to save others," "hatred of evil" and many similar formulations are always praiseworthy attitudes. Careful studies of many individuals manifesting these traits to an extreme degree indicate that they are definitely abnormal and unhealthy.

Boisen voices some of the psychiatrist's criticism of religion when he states: "Among the medical men with whom I have been associated

during recent years in my work with the mentally disordered, there is no phase of our church problem which calls forth more criticism and questioning than the Evangelistic work. The psychiatrist charges that the church requires of the human animal impossibly high standards; and that in its Evangelistic efforts it works on the fears of men and stirs them up emotionally and thus produces difficulties which come to him to be unraveled." Boisen's defence of religion is that it is religion's business to disturb men's consciences with regard to the quality of the life they are living. He feels that it may be necessary at times to produce unpleasant effects in an individual in order to secure higher and better results, and points out how medicine may control a malignant disease by vaccination which, in itself, is a form of sickness.

It is sometimes stated that the psychiatrist works by exactly the opposite method and that he degrades ideals and brings them down to the level to which the individual can approximate with but little difficulty, thus doing away with extreme degrees of conflict. There is enough truth in these two ideas to scrutinize them carefully and to inquire whether there may not be times when the imposition of impossible ideals upon an individual may result in nothing but harm. It is also

true that there is a serious danger at times that in the endeavor to adjust an individual to his environment one may remove too many restrictions and beliefs so that the ultimate effect is not desirable. The average individual finds the difficulties of adjusting to life in a satisfactory manner, with a preservation of his own feeling of self-respect, a difficult problem. According to Boisen the usual method is as follows: "The average or 'normal' man preserves his self-respect not merely by finding a task worthwhile and getting recognition in contemporary society; he is very apt also to have solved the conflict in his teens by lowering somewhat his conscience threshold. His confidence and self-assurance is apt to be tinged by a trace of flippancy or of cynicism; he is apt to lay great stress upon certain petty virtues or to be sectarian or partisan in his loyalties. His business and pleasure are not infrequently a means of escape from a source of inner disharmony which leaves him restless and dissatisfied." The problem is to find a set of ideals for the individual which will work and be satisfactory. Many persons insist on a set of beliefs with a guarantee that they are absolutely right. To such individuals the following quotation from Campbell may be relevant, "Setting out to reach, if possible, something final, static, absolute in the realm of belief, one

finds that beliefs are the tools of life, rather than rare intellectual products to be carefully cherished for themselves. What beliefs may thus seem to lose in prestige they gain in their value for life, and their significance is seen in the light of the strivings of the individual. The right mode of life and right beliefs are problems too intimately interwoven to be thought of apart, and he who searches for right beliefs is also searching for the right way of life; in both directions the individual cannot transcend the limits of his endowment or get beyond what is relative."

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