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PSYCHOPATHOLOGY

A SURVEY OF MODERN APPROACHES

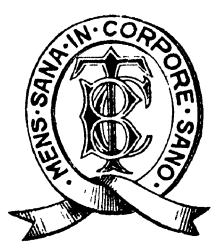
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PREFACE TO THE FOURTH EDITION

THE comparatively short time elapsed since the last edition has meant that only a few additions have proved necessary. The bibliography has been brought up to date as far as possible, and minor errors have been corrected.

My best thanks are due to Dr. S. M. Coleman for his advice and assistance, more especially in connection with Chapter XV.

The publishers' part throughout the preparation of this and of previous editions has been so efficiently and helpfully carried out that one might be in danger of taking their unfailing courtesy and goodwill for granted; I therefore gladly acknowledge my debt to them and would like to underline the pleasure it has been to co-operate with them.

J. E. N.

WARRINGTON,
March, 1946.

EXTRACTS FROM PREVIOUS PREFACES

FIRST EDITION.—This handbook . . . is designed to provide a general survey of the views of the different schools of to-day . . . ; to show some of the points at which different lines of approach approximate to one another; and to indicate, by references to important authors, directions in which further reading might prove profitable and interesting. . . . The author hopes he has been successful in marshalling some sort of orderly disposition out of the chaos of modern theory.

SECOND EDITION.—Chapters dealing with ethnology, schools of psychology and applied psychopathology are entirely new. . . . The lines of thought, other than medical, in which psychopathology is making its influence felt are so numerous that more than ever should a knowledge of psychology, normal and abnormal, be prevented from remaining in a water-tight compartment in the student's mind; like any other knowledge, it should, as far as possible, become part of our everyday life, and this to the same extent that experience brings us in contact with situations upon which psychopathology has more than a little to say.

THIRD EDITION.—A natural temptation to add and expand more and more in an effort to attain completeness . . . has been partly resisted. . . . Much of the newer work in psychopathology . . . is very abstruse and intricate, and any description of it that went beyond a mere summary would have meant a departure from the policy of providing a guide to the many modern approaches rather than a textbook on any one.

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PSYCHOPATHOLOGY

CHAPTER I

HISTORICAL INTRODUCTION

TO review the history of Psychiatry would be of little use; it is psychopathology we have to consider, and it is only at a comparatively late date that any views at all were formulated concerning the psychological nature and causation of insanity. In the Middle Ages, insanity was almost a part of dæmonology and theology, and it was only after the sixteenth century that advance was made towards regarding mental derangement as a natural disease.

As one of the earliest forms of mental treatment might be mentioned de Mondeville's suggestion (about 1300) that the disorderly conduct of paranoid cases might be abated by persuasion and by artifice (such as forged letters) to convince or reassure them against their delusions. Moral suasion was advocated by Sylvius in the first half of the seventeenth century, while about the same time Bonnet was insisting that insanity was a disease and not the result of supernatural agency.

Paracelsus was the first to suggest that there might be some definite factor responsible for the affecting of one mind by another, and hinted that this might be a sort of magnetic fluid. The idea only matured with Maxwell and his follower Kersher. Maxwell taught that disease was due to a loss or withdrawal of the fluid and that it could be returned by 'magnetism'. Then Helmont put forth the view that this magnetic fluid, radiating from men, could be voluntarily guided by their wills for the deliberate purpose of influencing other men's minds. About a hundred years later (1770) Mesmer developed the theory of animal magnetism still further and wrote extensively on the magnetic power of the hand, though included within his works were his views concerning the influence of the planets on the body; the effects of magnetism now became known as Mesmerism. About the same time Puységur described artificial somnam-

bulism, while others introduced electricity as an adjunct to mesmerism. For instance, Perkins devised a magnetic tractor for massaging the patient.

For the next fifty years materialistic science was making such rapid strides that, owing to the emphasis placed on the physical aspect of Nature, mesmerism and other mental phenomena were accorded but scant attention. In 1830-40, however, Braid and Bertrand showed that mesmerism was a subjective state, that it could be produced by suggestion, and they introduced the word hypnotism. With Charcot in the 'seventies' and 'eighties', developments occurred rapidly. He demonstrated how morbid ideas could produce hysterical manifestations, and how pathogenic ideas and hysterical symptoms could be influenced by hypnotism. He therefore looked upon hysteria as a psychosis produced by ideation and responsive to suggestion, and hypnosis he regarded as morbid too and akin to hysteria. Incidentally, he also stressed the degeneration of brain tissues as a causation of symptoms. Richer, a follower of Charçot, investigated the physical means of producing hypnosis, magnets having a specific action in this direction; he described three stages of hypnosis, and believed it to be identical with hysteria.

Bernheim and Liébault, of the Nancy school, again emphasized that hypnotism is due to suggestion, and indeed regarded the two as different merely in degree; but this suggestion is, according to them, due to some innate factor, one that would correspond to McDougall's primitive sympathy and suggestibility. They largely replaced sensory stimuli in the production of hypnosis by verbal ones. Heidenhein, however, returned to a more physical view, and explained hypnosis as due to abolition of cerebral function after stimulation.

The explanation of suggestion was further elaborated by Babinski and Froment, who held that the effect of suggestion was to implant an 'idea', and that it is this 'idea' that, being possessed of a driving force, may lead to symptom formation. We should note how, by them, 'suggestion' is extended to include the process whereby an idea undergoes further elaboration owing to inhibition of all opposing ideas, the inhibition being itself due to a definite relationship or 'rapport' between physician and patient. Later, Baudouin and Coué reduced all hetero-suggestion in the final analysis to auto-suggestion, postulating that a communicated idea is endowed with an 'ideo-

reflex power' responsible for its definite acceptance. On the psychotherapeutic side, Dubois and Déjerine relinquished suggestion for persuasion, where, although ideas were presented to the patient in virtue of their probably useful determining effect, yet blind acceptance of them was not enforced; the patient's co-operation was sought, in that his intellect and reason were appealed to. Déjerine differed from Dubois in not only seeking rational agreement from the patient, but emotional approval as well. In Déjerine, moreover, we see an emphasis on what later proved the main theme of Adler's psychology, namely, the importance of inferiority and over-compensation. Later, Rosanoff (who ascribed neurosis to three factors: constitutional inferiority, character defect and provoking situation) also approached Adler in his stressing of 'invalidism' as a means to an end.

The rôle of certain 'idées fixes' in the ætiology of hysteria, as expounded by Janet, is but an extension of Babinski's and Froment's views. But Janet went a step farther when he proved that hysterical anæsthesia was not a true anæsthesia. From this he concluded that for certain sensations to go thus unperceived (giving the appearance of anæsthesia) there must be a restriction of consciousness, or a splitting of its stream; in fact, a dissociation, the dissociated portion being unperceived or ignored. This dissociation he ascribed to a lowering of synthesizing forces. He postulated a 'psychic tension' upon which depends the synthesis or integration of the personality, and when this tension is weakened, splitting of a part of consciousness may result. According to him the ætiological factors in hysteria were (1) depression of function of the encephalon; (2) retraction and dissociation due to a lowering of nervous energy; (3) a dissociation bearing on a function that has remained weak, which is most difficult for the subject and (4) which was in full activity at the moment of a great emotion.

From this point psychopathological advance has followed three main directions. A recrudescence of hypnotism has occurred and been followed by Boirac and others in France, and more recently by Völgyesi. Then, as part of a materialistic reaction, the physiological point of view has been adopted in the experimental psychology born of Wundt, modified into the conditioned reflexes of Pavlov and Bechterew and the systems of 'scientific' psychology such as Dunlap's, and finally incorporated in the 'behaviour-

ism ' of Watson and of Frost. Finally, on the psychological side, it was with the advent of Breuer and Freud that further progress took place.

Janet's ' idées fixes ' became Breuer's ' reminiscences ', the concept of repression was formulated and the corner-stone of psycho-analysis thus laid. To Freud we owe the theories of sublimation, psycho-sexual development and fixation. The influence of his views has been felt in other schools of thought developing side by side with his, as instances of which we might mention Morton Prince, McDougall, and Rivers. Departures from true psycho-analysis have occurred in the case of Adler and (in a more mystical direction) of Jung, followed by numerous attempts at establishing such a via media between the different schools as would satisfy the more eclectically-minded. Lastly, the need for correlating physical with psychological approaches has led to the stress that has been more recently laid on the autonomic nervous system, the endocrine organs and constitutional make-up, while the increasing reaction against structuralism in psychology has been responsible for an intensive study of personality as a whole by the characterologists.

CHAPTER II

MORTON PRINCE

LONG before modern psychopathology, controversy was raging round the question of an unconscious mind, the chief protagonists being, on one side, Leibnitz, Schopenhauer, Hartmann Herbart and Sir William Hamilton, while on the other were to be found the Cartesian schools, Lotze and the English associationists. The conception of an unconscious mind—or part of the mind—had a double origin, firstly as a postulate, and secondly as an inference. It was particularly required to explain certain phenomena of ' discontinuity ' that were well recognized and yet could not be adequately accounted for.

The mechanistic sciences had emphasized and elaborated the idea of causality for long enough, until the material phenomena of the physical world presented an unbroken series of events, all causally related to each other, each one being the result of its predecessors. On the psychical side, no such series could be discerned; mental events occurred for which no other preceding or ' causing ' event could be found—at least not by introspection, the method *par excellence* of classical psychology. The spontaneous appearance of ideas, of emotions, of certain kinds of behaviour, all these were inexplicable until it was assumed that there must have been some subconscious continuity, some invisible substratum able to ' carry over ' from a past set of mental events, through a period of seeming inactivity, to the sudden occurrence of the ' spontaneous ' manifestations.

The same problem was noticed again in connection with memory. For memory does not merely mean the occurring, in consciousness, of an image corresponding to past experience; it necessitates in addition a recognition of that image, and though the image may be regarded as occurring in consciousness, the recognition of it implies something more, some link between past and present consciousness. All recalling of long lost memories requires such a link for its explanation, as does also the feeling of continuity and sameness of personality experienced after those periods of non-consciousness that are sleep.

Opposition to the theory of subconscious mentation, led by

Munsterberg and Jastrow, is based on the theory of unconscious cerebration. It is held that what does occur unconsciously is a series of physiological processes that may subsequently influence consciousness but are not in themselves ' mental '. Indeed, it is here assumed that for any process to be ' mental ' it must be conscious. In reply to this, supporters of the unconscious mind point out that there are many acts, for instance solving problems during sleep, lightning calculations, post-hypnotic phenomena, etc., that are not of a conscious order and yet are intelligent, so definitely intelligent that they cannot be described as anything but truly mental. Moreover, to postulate physiological antecedents to mental acts would violate the principle—so dear to some schools of psychology—of independent psychical causation. The gap between the two views is to some extent bridged by Morton Prince's ' neurograms ' or patterns of changes in nerve elements consequent upon experience; it is from these that conscious memory can spring, given the necessary stimulus. Further, groups of neurons may be sensitized after experience so as to react again as a whole to a second stimulus applied to one element. This is the core of the redintegration theory elaborated by Hollingworth, after Hamilton.

The non-conscious part of the mind (in this connection one speaks of parts of the mind but in no real spatial sense; one is using the idea of ' place ' as a descriptive facility to denote ' aspect ') has been termed by Prince the ' subconscious ', and consists of any process outside the ordinary personal awareness. Of these non-conscious elements, those bordering on awareness, on the fringe of consciousness, easily capable of becoming conscious, constitute what he called the ' foreconscious '. All the more inaccessible components he termed the ' unconscious '. If, through becoming dissociated from the rest of the personality, any portion of the subconscious comes to lead an autonomic existence, capable of reacting as a whole to outside stimuli, and —though not usually endowed with subjective awareness—at times usurping the ordinary conscious personality, then it is designated as co-conscious.

The motive power of the mind Prince found in the instincts, which he inclined to regard much in McDougall's way. He admitted they achieve an end, that they are ' serviceable ', without, nevertheless, going as far as calling them ' purposive '. He denied, too, that for the arousing of each instinct there must

be a specific stimulus situation. He stressed the emotional aspect of instinct and saw therein the source of conative force. Note, however, that he was emphatically against considering emotion as ever being free-floating or unattached (like the libido of psycho-analysis); emotion is always one element in an innate instinctive process.

He recognized sentiments organized round an idea and used the term ' complex ' to designate an organization or synthesis of ideas and emotions. Like Hart, he did not appear to limit the application of the term ' complex ' to unconscious or repressed constellations, but included conscious ones as well, a procedure running contrary to the original psycho-analytic meaning of the word. The individual sentiments and complexes can become further organized into larger groups or ' systems '; and there are only a limited number of these systems which, taken together, constitute the whole personality.

Morton Prince recognized the principle of conflict and linked to it that of inhibition. When an instinct is aroused, energy is expended in three directions: (1) To produce those movements that lead to satisfaction of the instinct, and (2) to cause those visceral changes preparatory to action; also (3) to inhibit all other contrary instincts. This last necessarily involves an antagonism possibly leading to dissociation of the inhibited trends, a dissociation comparable, neurologically, to a kind of localized sleep. Prince here departed then from Janet's earlier concept of ' feebleness ' or weakened synthesis as a cause for neurosis; his dissociation is therefore dynamic, whereas Janet's is not. Such a conflict may occur also between sentiments, and between larger systems. In addition, it need not only occur between what is conscious and what is subconscious, but may take place entirely in the conscious or entirely in the subconscious.

The inhibition of any one mental element (idea, desire, etc.) may lead to its carrying with it, into the subconscious, other associated elements. Such a buried constellation of ideas and desires may, while unconscious, undergo a process of ' incubation ' and elaboration, showing the inhibition to be incomplete. That is, it may remain active, it may grow and become modified, and lead later to further manifestations such as dissociated behaviour. These dissociated acts, being removed from the moulding and correcting influence of the normal conscious personality, are apt to be more intense, more crude, in fact more unadapted. But

whereas a system of ideas, when repressed, can still be active and affect behaviour, Prince maintained that when a simple instinct alone is inhibited, it is always *completely* inhibited and the characteristic reflex peculiar to that instinct is in total abeyance.

As a result of repression and inhibition, there is evinced a definite tendency to dissociation or disintegration, with a possible re-erection in the co-conscious of those memories, functions and faculties that were lost to the usual personal awareness. Prince insisted that this dissociation is rarely complete, because in every individual there is also present a natural tendency toward integration. He instanced hypnosis as not being always merely dissociation, and quoted a case of Janet where what happened during hypnotic sleep was not a further disintegration of an already dissociated personality, but a synthesis, an integration into the whole personality once more. In some cases, opposite sentiments, in pairs, may be repressed, and then may reappear singly, first the one in one phase of dissociation, then its opposite in another phase of dissociation. The rôle of hetero- and auto-suggestion in neurosis, as emphasized by some of the French schools, was to some extent admitted by Prince. Hallucinations he regarded as a reflection in consciousness of the imagery of a subconscious stream of thought, the auditory ones being the sounds of speech essential to internal speech or thought. Minor mistakes and slips of writing he believed to be caused by conscious ideas.

He placed far less stress than the psycho-analysts on the analogy between present and infantile traumata. He denied any free-floating emotion or energy, he did not accede to the theory of sublimation, and the defence reactions and compensations so important to the Freudian school he tended to ignore. Symbolic meaning, being based on personal associations, he preferred to interpret individually in each case, rather than employ any general method based on a possible universality of symbols.

Treatment must involve the making of new associations between the lost memories and the waking personality. For obsessions where no marked dissociation exists he recommended suggestion, but deep analysis for other cases. The mere recalling of repressed material is not, in itself, sufficient; any more than abreaction. A re-education is necessary, by means of which the

patient may use his newly acquired knowledge to modify the ' settings ' within himself.

We have mentioned Morton Prince's views here not because they antedated psycho-analysis—indeed they have been much influenced by it—but because they were more general, more fluid, and therefore less dogmatically systematized.

CHAPTER III

FREUD'S PSYCHO-ANALYSIS

PSYCHO-ANALYSIS may be said to have been born with Breuer, from his work on hysteria. His use of hypnosis revealed to him that in the hypnotic dissociation state certain vague fancies, lost memories and ' reminiscences ' occupied the patient's mind with curious persistency (the ' idées fixes ' of Janet). Moreover, he noticed that after discussing these fancies, which generally centred round some past event of emotional significance, some of his patients improved, and that the more they talked about this past the more they improved. It was a significant fact that these past events, constituting a starting-point for hypnoidal fancies, were not available to ordinary waking consciousness; in fact, they were ' forgotten ' and only came up during hypnosis. The relating and describing of such forgotten events were generally accompanied by a strong expression of feeling, without which expression no improvement followed. As a result, Breuer assumed that neurosis arose from the lack of expression of the affect of a past mental trauma, that the affect had been suppressed but came forth again in the guise of symptoms, and that cure could only be effected by hypnotizing the patient and getting him to recall the trauma, at the same time helping him to work off—or ' abreact ', to use Breuer's term—the accompanying emotion; the very *raison-d'être* of the symptoms would thus cease to exist.

Where Breuer's views fell short was in not trying to account for predisposing factors. He showed how a trauma *might* cause neurosis through suppression of affect, but not why it should in some cases and not in others. At this point, Freud, who had hitherto worked with Breuer, now parted company from him, for two reasons: firstly because the trauma causing the neurosis was so frequently sexual in nature that he came to lay much more emphasis upon sex than Breuer was prepared to admit; and secondly because he denied the necessity for hypnosis in order to reassociate the suppressed material to consciousness, and used instead the method of ' free association '. In free association the patient is made to recount his thoughts, memories, dreams,

etc., as well as all the secondary associations he can get from them. He is helped to avoid selecting what associations he will follow; he must take up the first ones that present themselves even though they appear trivial, irrelevant or unpleasant. By this means he will gradually, association by association, tend to work back into his own past, slowly bringing to light the 'reminiscences' that Breuer evoked in hypnosis. Free association is really a voluntary relinquishing of conscious control instead of a hypnotic one. Freud's next object was to enquire into the mechanism responsible for the 'forcible forgetting' of this material, and thence to elucidate what factors, developmental or otherwise, might have established such a mechanism. The barest outline of Freudian theory is all we can attempt here, as it has become increasingly more complex and clothed in highly technical terms.

The act of purposefully but unwittingly relegating to the unconscious is what is termed 'repression', the repressing force being the 'censor'. The material repressed is found to consist of those thoughts, memories and wishes that might prove distasteful to their owner, who thus tries to ignore those aspects of his mental make-up that it would—generally for ethical reasons—be too painful to recognize. Repression does not, however, deprive the repressed trend of its urge, of its psychic value; the now unconscious wish remains a dynamic factor, especially when connected with some trauma the emotional affect of which has never been adequately expressed. As a result, a state of conflict is established between the repressing 'censor' and the repressed trend. This conflict may have various results.

(1) The ethical standards that have indirectly been responsible for the repression are subsequently ignored or put aside, and the individual succumbs to his 'anti-ethical' tendencies. In extreme cases 'perversions' may result. (2) The objectionable material may not be completely repressed, and it may occupy a narrow field of consciousness which becomes split off from the rest of the conscious self. This may lead to a real dissociation of personality. (3) The more usual and normal method, known as 'sublimation', consists in redirecting the energy bound up in the repressed wish into new and permissible channels that still express the general trend. That is, a goal is found that will satisfy the original tendency, but in a legitimate way instead of

an illegitimate one. Often this new end will be more abstract and impersonal, a kind of ideational replacement. (4) Symptom formation occurs when sublimation is absent or insufficient, and the repressed material is expressed in a distorted and disguised way so as to evade the censor. The symptoms may be a mental equivalent for the repressed tendency, or they may assume a bodily form. (5) It may happen, however, that in order to reinforce the repression 'reaction formations' occur, as when a conscious trend is over-accentuated in order to cover up all the more successfully an exactly opposite but unconscious tendency. Minor manifestations, comparable to symptoms and reaction formations, are the little errors, slips of the tongue and other mistakes of everyday life that often express more than their perpetrator consciously realizes.

A very important class of manifestations that owe their origin to the unconscious is that of dreams. It is generally admitted that physical causes may account for the *occurrence* of dreams, for instance various sensory stimuli, or visceral disturbances; but these cannot be held responsible for the *content* of the dream. The actual pictures and images found in dreams, woven around some topic, are to be traced to the conscious experiences of the preceding day; most dreams are related to things we have seen, thought of, or done during the previous twenty-four hours. Yet this equating of dream content with waking impressions supplies but an incomplete answer to our question. It explains the content of the dream as being a representation of recent events (psychical or physical), but does not elucidate either the *selection* of the material or its subsequent *modification*. Why should we dream of this rather than of that event from our late experiences, and why should this event appear different from what it really was?

The psycho-analytic theory of dreams postulates that the memories of recent experiences that are selected for dream use are just the ones that tend to associate with deeper unconscious material needing expression. In other words, the selection of the dream material is guided by repressed material acting from the unconscious. A dream is thus a mode of expressing, in a disguised way, what is repressed; and its interpretation will depend upon an examination of its 'obvious' or 'manifest' content with a view to finding the associations leading from the various dream items back to deeper material. Thus only will the

dream be given meaning and its ' latent ' content revealed. The dream must be regarded as a pictorially symbolic rendering of hidden *wishes* (and in the dream these are often represented as realized) that have to use this, a devious form of expression, in order to evade the censor; and the symbolism of the dream is discovered by finding, through association, what the various dream elements stand for. Exceptions occur, however, in the case of children's dreams, as these often express the wish-fulfilment in an undisguised form, and in the case of certain unpleasant dreams that contain no wish-fulfilment but are an expression of a ' repetition compulsion ' that possibly represents an attempt at the mastery of a difficult situation (see also Chapter XX). Moreover, the dream may in some cases be an attempt at solving some problem with which the dreamer had been quite consciously concerned before. In other words, dreams result from a claim for either the fulfilment of an instinctual need from the unconscious or the solution of a doubt or problem arising from the conscious self.

Without entering into details concerning the interpretation of dreams we might recapitulate the various dream ' mechanisms ' as follows. Apart from *symbolism* (the using of each dream item as a symbol for a hidden thought or wish) and *dramatization* (the working up of the material into a story), we note how there is considerable *distortion*, a disguising and rearranging, further assisted by *condensation*, as when several thoughts or trends are expressed by a single dream element. There is also *displacement* of affect when the emphasis is shifted from what would otherwise be the central figure in the dream on to a content of secondary importance. Finally, it may be found, as pointed out by Jekels, that psychic themes may be expressed twice over, or duplicated, in a given dream; just as in a play (e.g. Hamlet) a secondary plot may be used to emphasize in a different way what the main plot already signifies. Such dream interpretations will naturally rest upon the proper elucidation of the meaning, for the dreamer, of each picture in the dream. But although each mind has its own traits and characteristics, the general means of pictorial and symbolic representation remains pretty general throughout the race; and so one can assist the interpretation of a dream by drawing upon other sources indicative of standard activities of the human mind. Many of the symbolisms found in dreams thus agree very closely with those of mythology and folk-lore, those

dreams of the race. The forces that operate in the individual to repress those wishes that form the basis of, and find fulfilment in, the dream have already made their effect felt in the infancy of mankind; hence individual dream symbols may be interpreted by analogy with racial symbols. Language may also bring support to such interpretations. For example, the validity of accepting water as a symbol of the mother and of birth (e.g. Moses found on the waters) receives confirmation from the similarity between the two French words *mer* and *mère*. A poetical expression of such symbolism is found in the lines of Swinburne (quoted by Howe):

> I will go back to the great sweet Mother,
> Mother and lover of men, the Sea.

By thus interpreting dreams and symptoms, the conclusion was arrived at that the neurotic manifestations contained references to a past difficulty or trauma the affect of which had been reawakened by recent events. This trauma, however, was part of the patient's adult experience, and the reason for its effect *as a trauma* was found, on further analysis, to be that this adult experience itself acted as a reinforcement to an earlier infantile one. Troubles of grown-up life often owe their influence to their being reminiscent of older troubles that have occurred in a similar direction in childhood and adolescence; the adult situation and trends turn out to be but a re-edition of those of childhood. Adult reactions are thus often but a repetition of those of youth. It is true that sometimes the traumas of childhood that are apparently recalled during analysis turn out to be merely phantasy, and are in no way representative of true facts; but even phantasy is at least psychically real, and has determining influences just as real memories have.

The question of childish memories and phantasies brings us to the consideration of the mental life of the child and mental development generally. In the growing child there are two psychic systems to be recognized. The first is purely instinctive; it is the one that seeks direct satisfaction, and obeys the ' pleasure-pain ' principle in that its only adaptiveness is that of avoiding pain in its search for pleasure. In so far as it is instinctive and primitive, its activities are generally of a ' sensual ' order. But a part of this system has to come in contact with the world of external demands, with reality, and contact is effected by means

of perceptual consciousness. As a result, from that part of the primitive psyche that is conscious, develops the second system. This one has for function the adapting of the organism to the demands of outside reality. This second system is the one that normally controls the first; or at least it moulds the modes of expression of the first system; it obeys the 'reality' principle in so far as it has learnt to forgo pleasure and to endure pain. It comes to stand for intellect, reason and control as compared with the primary system that is all pleasure, sensuality and unrestraint.

It is owing to the second system that repression becomes possible. When the demands of the first one clash with the taboos of the external world, the second system ensures such modifications as will make the instinctive needs legitimate and tolerable. To this part of the self that is intelligent and adaptive, that controls the instinctive part of the personality, Freud has given the name of 'ego'. The primitive undeveloped portion of the psyche obeying the pleasure-pain principle he has called the 'id'. The general instinctive energy found in the id, that is always seeking expression, is what he has termed the 'libido', the corner-stone of psycho-analytical theory.

This libido, being the primal instinctive urge, is naturally enough essentially sensual in its modes of gratification, unless these be remoulded by the ego. Psycho-analysis regards the libido, however, as definitely *sexual*, and therefore sees in sex the great moving force accounting for most of human action. But what exactly is meant here by the word 'sexual'? Certainly more than those manifestations of the reproductive instinct that are commonly regarded as sexual. Sex in psycho-analysis includes all those trends that were once sexual, even if they be now diverted to non-sexual aims. Moreover, those infantile tendencies that will be associated with sex in adult life, and even those that are only generally sensual but may persist as sex perversions, are all grouped under the same heading of sex. Finally, all the various manifestations of the parental instinct and of much that is love and hate, in fact everything that ultimately tends to establish such a relation between the sexes as will ensure the continuation of the race: all is sex.

At first sight it might appear as though all instincts, except those of the ego, were reduced to the one—sex. But Freud never asserted this one to be unitary and indivisible; he frequently speaks of sexual instincts, and of instincts-inhibited-in-their-aims;

indeed, one becomes inclined to regard 'sex' merely as a convenient class name under which can be grouped all those primitive instincts that are essentially sensual and are so often and readily used in the service of what is usually called love.

The question of psycho-sexual development—using the term in a psycho-analytical sense—has been given great prominence not only by Freud himself, but also by his followers, more particularly Abraham, Deutsch, Ferenczi, von Hüg-Helmuth, and Jones. It would appear that at first the infant's sensuality—or sexuality—is very vague and widespread; it affects the whole of the cutaneous surface of the body, though very early it becomes concentrated in a few erogenous zones. The first zone to be endowed with definite organ-pleasure is the mouth, largely owing to its being the organ of suckling, for (as Money-Kyrle has recently pointed out) the suckling stage is not over for humans as it is for animals by the time sensuality as such begins to develop; the two phases overlap. That may be the reason why, when the persistence of a suckling reflex is erotically determined, one finds it associated with residual evidence of the grasping reflex that originally went with it. During the stage of oral erotism two opposite trends succeed one another. During the early oral period we have the tendency to retain and to incorporate all objects brought in contact with the mouth: a 'constructive' phase. In the late oral period is evidenced the urge to break up, destroy and cast away: a destructive phase. Next, erotism becomes shifted to the perineal zone and for a while is concentrated in the region of the anus. This anal sensuality again has two phases, but in the reverse order from that which obtained in the case of the mouth; the destructive phase is first, and the retaining, constructive one second. Finally, all sensuality becomes largely centred under the primacy of the sex organs proper, first during the 'phallic' (unorganized) stage, and then the adult 'genital' stage. After the earlier (oral and anal) stages have been passed through, the child enters the 'latency period' lasting till the onset of puberty, when the oral and anal stages are briefly reactivated before a more adult sexuality is reached.

Many psychological peculiarities of character have been traced to the persisting influence of these phases. Sadism and ambivalency are related to the late oral and early anal stages, when the impulse to destroy is uppermost. It is not difficult to see how some of the commoner sexual perversions can be regarded

as due to these influences. The symptoms evinced by melancholics are ascribed to the persisting effect of these oral and anal stages, such symptoms for example as refusal of food, hallucinations of taste, delusions concerning inactivity of the bowels, desire to destroy themselves (introjected sadism), etc. The obsessional neurosis links up with a late anal phase; hence it is said that a melancholic who improves merely advances to the obsessional stage. These various influences, stated in terms of developmental stages, are then (1) Early oral, (2) Late oral, (3) Early anal, (4) Late anal, (5) Phallic, and (6) Genital. Recently Jones has subdivided the phallic stage into two, the proto-phallic and the deutero-phallic phases, the separation between them being marked by the conscious discovery of sex differences.

So much, then, for sexual development viewed in relation to the regions of the body that may be charged with sex feeling; there is still to be considered the development of the libido from the angle of the object chosen for providing an outlet.

At first the child has no objective outlook at all; nothing is recognized as definitely not-self, and therefore even the self seems to have little real actuality. This is the stage during which the child's activities are auto-erotic; it seeks satisfaction on itself, although it has no clear realization of that self as an object. Later, however, it does regard itself as an object of interest, as a 'thing' that exists apart from other 'things', and while it is erotically absorbed in itself in this way, the child is termed narcissistic. Later still, he directs his sex interest to other people, at first to those of the same sex—a homosexual stage—and then to those of the other sex—the adult hetero-sexual stage. The successive periods of development are then—

I. Objectless or auto-erotic;
II. Object love, at first
    (*a*) Narcissistic, then
    (*b*) Allo-erotic:
        1. Homo-sexual;
        2. Hetero-sexual.

The successful passing from each stage to the next necessitates a relinquishing of sexual interest in connection with each kind of attitude that is to be overcome. Hence this means sublimation. This occurs, for instance, when narcissism passes away; the sexual interest in the self becomes converted into a non-sexual one; the

narcissistic instincts that have become inhibited in their sexual aims now lead to the normal interest in self that is so often excessively expressed in adolescence as foppishness and conceit. Similarly homo-sexuality disappears owing to the instincts-inhibited-in-their-aims leading to a beginning of a non-erotic interest in others of the same sex: that is, social feeling; and so on.

In most individuals the choice of love-objects in the surrounding world would seem to follow certain definite lines according to whether the choice is primarily narcissistic or anaclitic in type. A narcissistic choice means selecting an object that corresponds to (*a*) what one is, or (*b*) what one was, or (*c*) what one would like to be. The anaclitic type expresses an attachment to either (*a*) the mother who tends, or (*b*) the father who protects.

If it so happens that each successive step of sublimation be not successfully carried out; if erotic interest continues to be applied in directions that should have been divested of their sexual significance; if, in fact, the libido still adheres to infantile aims, even if unconsciously so, then a ' fixation ' is said to have occurred. And in so far as a youthful form of sexuality that has not been sublimated is yet not allowed direct expression, then it is liable to make its effect felt from the unconscious by means of symptom formation. For example, dementia præcox, with its negativism, its autistic thinking, its self-absorption, its auto-erotic practices, is due to fixation at the auto-erotic stage of development. Manic-depressive insanity corresponds to a fixation point at the narcissistic stage, oral and anal, and paranoia to one between narcissism and sublimated homo-sexuality. It must be remembered that this fixation of libido is not only qualitative, but quantitative too; more or less of the libido may be fixed at one point. In addition, there may occur cases of fixations at more than one point, as in the case of dementia paranoides; in other words, more than one form of infantile libido gratification may persist.

We have seen how at one stage—narcissism—the libido takes the self as its object, whereas later on it becomes transferred to external objects. In order to distinguish between the two cases, libido, when taking the self as its object, is called ego-libido; but when it is directed to the outside world it becomes object-libido. Another point of importance about the libido is that it is believed to be constant in amount for any particular individual, so that the sum of ego-libido and object-libido must be a constant.

Originally the libido is primitively sensual, but as a result of repression and sublimation it has to seek non-sensual ends, thereby becoming desensualized. It is to libido trends that have thus become non-sexual that Freud has applied the name of instincts-inhibited-in-their-aims. Other psychologists, however, have preferred to call them 'interest'. In the adult stage of life the ego (as representing the core of the conscious self) comes in for a good deal of interest, and so here again we have the ego being the object of libido; but this time it is not primitive libido, as in the narcissism of childhood; it is desensualized libido, and this condition of self-regard is known as secondary narcissism. The ego-libido is capable of being transformed into object-libido in order to be applied to the outside world; but the converse is also true, as object-libido can be converted back into ego-libido once more. For example, the apathy of dementia præcox is due to so much libido having been thrust on to the ego; in other words, the ego is so much an object of paramount interest, that there is not enough libido left with which to invest adequately objects in the environment. When the ego thus becomes surcharged with libido it becomes inflated, it assumes an ever increasing importance in comparison with the external world, and as a consequence ideas of grandeur may develop, as in paranoia. This application of libido on to a person or object has also been termed cathexis, so that we speak of an object cathexis when libido is applied to an object in the outside world and of a narcissistic cathexis when libido flows back on to the self. These two kinds of cathexes have recently been equated with two kinds of mental discomfort, mental *pain* being linked with object cathexis and mental *suffering* with narcissistic cathexis.

A great deal of affect may be attached not only to people and objects but also to various abstract symbols and even ideas. Words can similarly become of such affective importance that their use becomes a feature of certain disorders—for example, in schizophrenia, where a special 'language' may be created. Even thinking as a function may become so affectively charged or 'eroticized' that there develops a sensuality of thought (Obendorf) comparable to the sensuality associated with such other, more concrete functions as physical exercise, play, musical enjoyment, etc.; the mere act of thinking may therefore become a sensual enjoyment, an end in itself and not merely a means to an end.

To return for a moment to the question of repression. Although the ego represses trends from the id, yet it is not itself the instigator of repression; the 'censor' is not part of the ego. It is a special portion of the psyche, developed in the unconscious, that has been termed the 'super-ego'. This super-ego is the unconscious criterion of right and wrong, and it first makes its appearance in childhood. As is to be expected, the parents assume enormous importance in the eyes of the growing child; indeed, there is always a tendency for a strong (and in a psychoanalytical sense—sexual) attachment to occur between the child and its parent of the opposite sex, leading to an attitude of dependence and love that is the basis for the now famous Œdipus-complex. A complex, as used here, is the term applied to an unconscious constellation of trends, ideas and emotions centred round a particular topic. As part of this Œdipus-complex is often found an attitude of rivalry and hate towards the other parent. When the Œdipus-complex passes away, as it has to if detachment from the parents is to occur in order to let development proceed normally, the standards and injunctions embodied in the parents' influence become re-erected in the child's own unconscious, forming the nucleus of the super-ego. This kind of 'precipitate' of parental teachings provides the criterion of what should or should not be repressed. Recent work by Klein would suggest that the super-ego—or something like a super-ego —appears even earlier, before the passing of the Œdipus-complex; without going into details concerning the exact time and mode of production it may be said that we have here the beginning of an unconscious 'conscience' that will direct and regulate the repressions carried out by the ego. We therefore have to reckon with—in addition to the faculty for conscious self-criticism coming from the reasoning ego—the unconscious and critical tyranny of the super-ego. As a result of these three conflicting forces in the mind (ego, super-ego and id) the neurotic symptoms are of the nature of a compromise; they satisfy the super-ego (by inflicting punishment), they gratify the ego (by achieving power—advantage from illness), and they express the needs of the id (by symbolizing libidinous satisfaction). (For further discussion of the super-ego, see Chapter XX.)

According to Reich the mastery of the Œdipus-complex depends on sex, the time at which frustration occurs, the quantity and intensity of frustration, the trend most subject to frustration

and the relation of frustration to indulgence. If the mother or her surrogate remains the love object, then sexuality must be repressed, and it is the return of the repressed in symbolic form that constitutes the neurosis. If on the other hand the mother has to be relinquished as a love object, then substitutive interests must be found elsewhere. That is why, if health is to be maintained, privation and substitution must proceed hand in hand.

Now when much libido is converted from ego-libido to object-libido, the ego and super-ego appear correspondingly insignificant, and the object seems correspondingly exalted. Thus, in the state of being in love, we have an applying of so much direct libido (accounting for the sensual components of love) as well as large amounts of desensualized libido (giving rise to the ' tender ' feelings) on to the object, that this loved object becomes inflated at the expense of the ego and super-ego. That is why the loved one is never criticized, why ' love is blind '.

The shifting of ego-libido on to outer objects is one form of what has been called ' transference '. Especially is transference important during treatment. When large quantities of repressed libido are released through analysis, it is ' transferred ' on to the physician, who thus becomes an object of love or hate according to the positive or negative nature of the released trends; in any case, the reactions evinced by the patient towards the analyst are only the expression of what were once unconscious attitudes towards people or objects which had been of interest in the past.

It is part of the psycho-analytic technique that such a transference should be dissolved by further treatment. But there are two groups of cases, as pointed out by Alexander, for whom such transference may be permanently necessary. The infantile type in which the ego is not fully developed and therefore cannot stand the new conscious responsibilities resulting from analysis, and the schizophrenic type in which the ego is so weak that it gives up its function of testing reality and sacrifices sense perception for hallucinations: both suffer from an ego that denies and projects. The problem here is therefore not one of resolving repressions, but one of strengthening the relation to external reality; in other words, a positive transference must be nurtured and maintained. Identification with associates has been advocated for a similar reason by Sullivan.

When a loved object disappears (as a loved object), this may be due to death, disgrace, or a turning of the loved object against

the subject. But a restoration process now comes into play, by means of which the object is recovered, although deserving of blame or hatred, and the conception of that object becomes 'introjected'; it becomes, so to speak, incorporated and re-erected within the ego; a kind of identification takes place. Consequently the criticism (super-ego) and the sadism that would normally have been directed towards the real object now become turned back on to the ego, and the latter appears belittled, delusions of unworthiness follow, and suicide may result. Introjection cannot well be described further here, but it is a mechanism that is assuming more and more importance in modern psychoanalytical theory; it is specially stressed by Klein.

Comparing love with hypnosis, we find in the latter a transference only of instincts-inhibited-in-their-aims, so that there is no sensual element present. Further, there is a replacement of the function of the super-ego by that of the hypnotist, who now provides the criterion of right and wrong and acts as a sort of external conscience.

Just as the object may become introjected into the ego, we may find an idealized conception of the object re-erected in the super-ego; this is a process of identification leading to an appearance of love which yet is not love.* The object is treasured but not as a love object. The attitude towards that object is not based on what one would have (as in love) but on what one would be. Great regard is shown to the object, owing to its having been identified with the super-ego; but this is reverence, not love. Identification (or appersonation as it has been termed by Sperling) is of considerable interest and frequency, and the possibility of two individuals identifying themselves with the same object may provide a basis for explaining instances of 'folie-a-deux' (Obendorf).

And there are many more 'mechanisms' and complexes that would repay description if space allowed, but a discussion of them would take us into too great intricacies for our purpose. Mention might perhaps be made, however, of the 'castration-complex'. This is an unconscious system of ideas based on the childish belief that the possession of the male organs of generation is the normal for both sexes. Consequently there appears in the boy a fear of castration, which castration is often regarded as a punishment for some wrongdoing, and feelings of guilt may make their appearance. In the girl, the situation is slightly

different; a feeling of inferiority is engendered by a belief that castration has already been performed.

To sum up, the corner-stones of psycho-analysis, without which no point of view can properly be called psycho-analytical, are the theories of conflict, repression and regression, infantile sexuality and transference. Neurosis is regarded as caused by (1) fixations, due to trauma on the one hand and hereditary influences on the other; and (2) precipitating causes that generally include an element of 'frustration' or blockage of libidinal discharge. The relative importance of these two ætiological factors varies inversely, so that in cases with marked fixation the frustration need only be slight, and where the precipitating cause is severe it requires but mild fixations for a neurosis to develop. Coupled with these factors are the tendencies for the libido to regress to and reinforce earlier fixations, and for the repeating in adult life of reactions first established in infantile situations. It is to be noted that although all these above factors are recognized by Freud, he yet tends to lay more emphasis on the fixations than on any of the other influences at work.

Treatment consists in aiding the patient to bring up for himself, without undue pressure or suggestion from the analyst, the repressed material responsible for his breakdown, interpreting it with him, and then letting him grapple with the situation anew, on a conscious level instead of an unconscious one. This final process of readjustment is a personal one in which the physician has little or no rôle; each patient must work out his own salvation once he has been helped to acquire all the necessary material. During treatment, when unconscious material is being brought to light, resistances are encountered that are in effect the expression of the forces that first ensured, and are now trying to maintain, the original repression. These resistances may assume an intellectual form, as when the patient uses his intelligence in order to falsify or distort the evidence provided by the analysis; they may be expressed as an inability to associate or recollect; or they may be exhibited as a transference.

The essence of the treatment is the analysis of the resistance, and, as Anna Freud points out, it is necessary to analyse the ego and its defences just as much as it is to analyse the id and its expressions. It is probable (Hendrick) that the strength of the ego is not merely the strength of its defences against the id, for it has other functions to perform, but the ego must be attacked in

order to enable a recognition of past repressions to take place. If successful, this attack, according to Strachey, leads to the ego, so to speak, dissociating into one thinking part that reasonably judges the inadequacy of the other, experiencing part. Eventually treatment consists, in its final stages, in altering the super-ego to make it more tolerant, and to a lesser extent in rendering the id, or at least its expressions, more tolerable. It is only once this is achieved that normal development can resume its course.

Bjerre, however, and Sadger, would to some extent appear to favour a measure of re-educative influence from the analyst, while Schmiderberg's views on reassurance in analysis seem to tend in the same direction. Pfister, another well-known writer, has further attempted to correlate psycho-analytical teaching with ethics. His works are all 'tinged with moral evaluations, expressed in his extensive use of such adjectives as good, evil, high, low, etc. And so it is not surprising that he assumes a more active rôle when it comes to the termination of the treatment, when the patient has to readjust his conduct and his outlook in accordance with social demands on the one hand and his newly acquired knowledge of his instinctive needs on the other.

The more prominent followers of Freud are Abraham, Brill, Federn, Flügel, Glover, Hattinberg, Jones, Low, Rickman, Sachs, Stephen, and Strachey, but we have to notice briefly two significant departures from orthodox psycho-analysis; though these departures are not such as would cause their advocates to be classed outside the psycho-analytical schools.

The first of these is due to Ferenczi, and the second to Rank. Ferenczi's innovation is one of technique, to which he has given the name of ' active therapy ', and which has been followed by Simmel and Hollôs. It is of special use when a state of stagnation in the analysis has been reached, notwithstanding an absence of resistance or negative transference, and stands in marked contrast to the Freudian rule of passivity on the part of the analyst. For instance, in some obsessional cases are found fears and phobias that are reaction formations really concealing definite wishes. In such instances the patient is commanded to perform these acts or seek these situations of which he is afraid. As a result, anxiety may disappear until these acts are consciously realized as pleasurable. This, however, only relieves the anxiety and does not lead back to the infantile influences that have made these

acts desirable (though undesirable from the point of view of adult morality). And so the patient is next ordered to renounce these acts once more, to enter upon a stage of abstinence and 'frustration'. The libido is now suddenly dammed up; the frustrated desire being now conscious, unconscious reactions would be of no avail, and the only thing left for the libido to do is to 'regress' to points of early fixations, reanimating childish reminiscences and phantasies that will provide further material for analysis. Incidentally, the reapplying of frustrated object-libido to the production of phantasy is the only way in which Freud would use the term 'introversion' (see Jung). Ferenczi claims that by means of his active technique analysis may be considerably shortened. Another feature of his technique is that when the patient regresses to childish situations the analyst has to adopt a correspondingly childish manner; he has to follow and respond in kind to the patient's attitude to help the latter express his infantile emotions better than he could if faced with the ordinary adult response that so often is anticipated by the patient as likely to be hostile and uncomprehending.

Rank adopts active measures too, but in addition his theories differ markedly from Freud's. First of all, he has assigned a special significance to the 'trauma of birth' and exalted it into an all-pervading influence explaining almost any adult psychological mechanism, in much the same wholesale way that all character is related by Adler to the 'masculine protest', being supported therein by such recent writers as Mitra, who ascribes all emotions to the original disturbance of pre-birth harmony. Rank secedes from other psycho-analysts in no longer regarding the Œdipus-complex as a unity; he separates the striving after the mother from the hatred of the father, and equates the former wish with a pre-natal condition of union with the mother. The analytic situation he views in the light of a re-edition of the intra-uterine state, and it is on the relative severity of the birth trauma that the characters of introversion and extraversion depend. Further, he has also drifted from psycho-analysis in denying the primary importance of the unconscious. He does not believe in re-activating the past too much in neurosis, and he adopts a terminology of his own when he speaks of three prime forces: impulse, inhibition and will (though these might perhaps be dimly relatable to the three 'parts' of the mind: id, ego and super-ego).

Incidentally, both Rank and Ferenczi hold abreaction as most important, but, as Strachey says, there is a danger of confusing under the heading of abreaction (*a*) a discharge of affect with beneficial results, with (*b*) a libidinal gratification that is merely a perpetuation of an infantile form of expression.

Of late, certain authors would even go as far back as pre-natal life in their search for mental causations. For example, it has been suggested that the sense of rhythm—perhaps even the sense of time—is first acquired from the sound of maternal arterial beats as heard *in utero*.

In conclusion, and to prevent confusion, it might be well to point out that Stekel, who is well known through his popular writings and has often been termed a psycho-analyst, really stands outside the Freudian school. He leans to some extent towards Jung, he admits Adler's power instinct, and he also recognizes other unitary urges; his interpretations are hasty and eclectic, and he definitely believes that the physician's task is to educate and control the patient as well as to analyse him. He admits of very active methods and believes in the efficacy of short analyses—three or four months, instead of the possible years that a Freudian analysis may last. He has been followed by a few, notably Gutheil.

CHAPTER IV

ADLER'S INDIVIDUAL PSYCHOLOGY

ADLER was one of Freud's original followers, but he soon began to diverge from his master, and founded a school of his own. In order to distinguish his system of psychopathology from Freud's, the latter being the only one to which the term psycho-analysis can rightly be applied, he designated his own views ' individual psychology '. He has been followed by several; for instance, Crookshank, Seif, Weinmann, Wexberg, Dreikurs, Kransz and Knopf.

He differs from the psycho-analysts in many fundamental ways. Not only do his interpretations disagree with Freudian ones, but he has repudiated several of the original tenets of psycho-analysis. For instance, he denies repression; resistance is mentioned but not fully discussed as to its sources or modes of operation; he rejects the theories of infantile psycho-sexual development; the latent content of dreams he ignores; and even as regards the rôle of the unconscious he pays but little attention to it. For him, memories and wishes may or may not be unconscious, it is immaterial. In some ways he seems to reject the conception of unconscious ideas, and regards the contents of the unconscious as ' pre-psychic ' forms, ' proto-ideas ' so to speak, that will—or may—give rise to conscious ideas. In fact, he approaches the position of Lloyd Morgan, who ascribes to the unconscious not formed ideas but merely the potentiality for causing such ideas to arise in consciousness. One of the ways in which memory functions, Adler believes, is by giving an emotional tone to the subsequent contents of consciousness, this emotional tone serving to colour the present in accordance with the past. To emotions he ascribes little or no driving power; we do not act in this or that way because an emotion impels us to do so; on the contrary, we produce such and such an emotion to suit our already determined conduct. Moods especially do not so much sway us as they are evinced in order to sway others, thereby assisting us to gain the upper hand of our environment.

All Adler's psychopathology is based upon what he terms the Masculine Protest '. This is derived from the ' Will-to-live ' of

Schopenhauer and the 'Will-to-power' of Nietzsche. It is essentially the core of that egoism that accounts for the individual attempting to dominate and master his environment, at all costs to put himself 'above' or 'on top'. This view reduces the rôle of sexuality in mental physiology to insignificance, and emphasizes instead the egoistic impulses that Freud has sometimes been blamed for apparently neglecting. That the masculine protest exists, Freud admits; but Adler goes beyond showing how all libido (sexual) strivings are tinged with egoism, for he asserts that all *is* egoism, whether it be expressed in a sexual or a non-sexual manner. Sexuality is only a special case of egoism.

One of the roots of this masculine protest seems to lie in the possibly inherited inferiority of bodily organs and of the nervous superstructure controlling them. The fact of there being an organ inferiority leads to attempts at compensation (a physical compensation) that may, on the one hand, show itself in that same organ or its nervous mechanism, but on the other hand may equally well become apparent as an over-functioning of some other organ elsewhere, as when a hyperthyroidism develops to compensate for another endocrine gland's deficiency. But further, this organ inferiority may give rise to a psychic manifestation of inferiority, and this too has to be compensated for in some way. If this compensation, occurring in the mental sphere, be extreme, symptoms will occur. These may be of two kinds. First, functional disturbances that often manifest themselves in relation to the organ that was originally defective (e.g. enuresis in the case of urinary inferiority); second, purely psychic peculiarities consequent upon the *feeling* of inferiority—comparable to the 'sentiment d'incomplètude' of Janet. All disease is viewed by Adler as having structural, functional and psychic components, and therefore necessitates investigation from all three aspects.

In so far as many inferiorities are accompanied by dysfunction of the sexual apparatus, it is therefore not surprising that symptoms so frequently occur in connection with the vita sexualis. It should be noted, however, that the sexuality found in dreams, Adler considers, should often be interpreted by analogy and not always taken as even psychically 'real'. Adler admits that past phantasy (childish wishes) may be re-enacted in dreams—and in adult life too—but this is so merely in order to maintain the present life-line, to persist in a present attitude. Dreams are preparations for confronting a real problem, they offer a 'trial

solution ', and Adler looks for the cause of neurosis in the goals of the future rather than in the difficulties of the past.

In individual psychology, the patient is studied as a part of his environment; he is regarded as an adapted or, in the case of the neurotic, an unadapted personality. In the event of ill-adjustment, this is traced back to the ways in which he tries to overcome his feeling of inferiority, and, failing to do so, produces symptoms as compensations or attenuations. Man is always guided by some goal or end connected with his desire for superiority; and it is in his incapacity for attaining this goal, while still behaving as a member of society, that the germ of neurosis lies. Every psychic phenomenon is a preparation for that goal and is determined by it, by this idea of some superior end to be achieved acting as a ' directive fiction ' that gives purpose to adaptive processes. This fiction is the idea of what one might be, an ideal corresponding to our conception of the ' complete man '. And any failure to reach this ideal leads to its being looked upon as something unattainable which we could only realize *if* things were not against us, *if* our environment were not so hemming us in.

This ideal is often very secret, and even the individual himself sometimes fears to allow it to become too clearly realized. It begins in childhood as pure fiction, but later partakes more of the nature of a hypothesis, a hypothesis of what we might be if allowed; finally, it may turn into a dogma of such dominance that it clashes with reality. All cognition and apperception are conditioned by this dogma, and experience becomes a process of picking and choosing what fits in with the ' guiding fiction ', while neglecting or minimizing what contradicts it.

Normally there is a strong communal feeling that ensures realistic activities in line with the demands of society, but in the neurotic the feeling of inferiority is intensified, the patient gives up all practical hope, and erects phantasies in order to regain his sense of worth. As a matter of fact, this goal was never meant for concrete realization (but merely as a guide), and if it be expected to materialize in practice, failure is bound to follow. To account for this defection, as an excuse to himself, the neurotic raises his ideals still higher, and his symptoms take the form of ascribing to his environment the failure that depends upon himself. If he did not prove to himself either that he is unworthy of his goal or else that he is externally prevented from reaching it, he would have to attempt to realize it, in which case he suspects that

his own inferiority would cause him to fail. Often the neurotic is prone to regard himself as consisting of two 'selves': the higher one, corresponding to his ideal, what he would like to be, is the one he is apt to call his 'real self'; the other, his actual 'lower' self, he minimizes and hardly considers as his at all, ascribing its inferior characteristics to the influence of his surroundings. Neurosis, then, subserves four main purposes: (1) it is used as an alibi for having skipped the demands of reality; (2) it serves as a protection when our cherished ambitions are baulked by outside circumstances; (3) it allows decision to be postponed; and (4) it helps to throw up in disproportionate relievo those ambitions in which triumph *has* been achieved.

Any compensatory strivings, to be normal, should be socially useful; otherwise, reality makes the feeling of inferiority worse. Many successful men of the world are just those who were inferior in their childhood but have successfully compensated. Others get a neurosis instead, in order to achieve a miserable victory over the society whose demands are too much for them. This often entails a withdrawal from society at large into the narrower family circle over which it is easier to dominate through symptom formation; the neurosis provides a means of achieving a vicarious sense of power over one's intimates. Culture, which is regarded by psycho-analysis as a sublimated product of sex, is looked upon by the individual-psychologist as the normal method of attaining power, making communal life worth living.

The correctness or otherwise of an individual's adaptation is to be inferred from a consideration of what his attitude is towards society, towards work and towards love. As regards the first, he may, in abnormal cases, err on the side of timidity, or else he may over-compensate and become over-defiant. As regards work he may either play for safety and take up unoriginal routine labour (as a result of inferiority), or he may retain his originality but work for himself in such a backwater as will debar him from encountering the competitive factor inherent in social mixing. His attitude towards love usually depends on the previous two; it is only a special case of sociability. In fact, Adler would consider sex as another, more intense, form of friendship; and not friendship as a modification of sex. Consequently, he repudiates entirely the notion of sex-love leading —via homosexuality—to communal feeling. Again, in contrast to Freud, he explains the symptoms of neurosis, as we have

seen, as entirely the product of the ego, and not as a compromise between ego and sex.

The reason why the ' protest ' of the neurotic is described as a ' masculine ' one would appear to be that the ' male ' man has ever been taken as the standard of complete human potency, and the feminine aspect of individuality has always been relegated to an inferior position. As an extreme instance of this point of view, Weininger might be quoted. He first puts forth the view that all human characteristics are based upon the occurrence in living tissues of both male and female plasm. The resulting traits are discernible in both the physical and the psychological sphere; and if we use capital letters for mental factors and small letters for bodily ones, the total personality could be expressed as M+m+F+f. The recognized sex of any individual thus rests with the side on which preponderance occurs on a physical basis, whether ' m ' or ' f ' is in excess; further, though ' f ' may exceed ' m ' in a given case, yet in the same case it may happen that ' M ' exceeds F, so that this (physically) female person may be psychically male. It also follows, according to Weininger, that M and F are complementary, so that a large M presupposes a small F, and vice versa. On this theory it is possible to explain the occurrence of intermediate types, where M and F are nearly evenly balanced. As development proceeds, however, the normal striving is to expand the M at the expense of the F, as what is male is necessarily higher, more advanced, and more valuable than what is female. He sees in woman and female mentality a stage of inferior, unevolved and deficient human psyche. For him, woman is all instinct and trickery, with no real consciousness of purpose. But man is all will, intelligence and conscious self-realization. And in so far as all humanity has always acclaimed man as above, woman as below, then all human strivings—even in the female—have been towards more complete masculinity. This compares interestingly with Freud's views on the castration-complex which occurs in female as well as male children, owing to the male being regarded as the ' complete ' being and the female as deficient or ' truncated '. Adler's ' inferiority ' is not unlike Freud's ' castration-fear '. This inferiority, however, is a concept that is so all-embracing that it becomes vague and indistinct, especially when it would appear to include reactions that are due to a sense of guilt. As pointed out by Alexander, whereas a true inferiority leads to an increase of aggression, a depreciation of

others and self-superiority phantasies, the sense of guilt on the other hand results in avoidance of expression of hostile tendencies, self-inflicted punishment, provocative behaviour and guilt projection. If, therefore, the term inferiority is applied to both the above, when the one is characterized by traits that are the opposite of those of the other, then the whole idea of inferiority loses its meaning and usefulness.

When this feeling of deficient masculinity occurs in a man, it leads to a dread of not being above woman. His attitude towards women, therefore, is that he will have none of them; or else, that he will have all of them and attempt to be a Don Juan. Either way allows him to preserve his superiority. It is the having of one woman only that would tend to put him on a level with her. Similarly, in woman, a masculine protest leads to frigidity; or else it urges to prostitution, where what might have been the sexual token of inferiority becomes converted into a means of obtaining money, power, and independence. According to the Freudian school, however, Don Juanism is the result of repressed homosexuality, while according to Wittels (who stresses the inherent bisexuality of mankind) the love for loose women represents a wish to externalize a feminine component. Other writers on these subjects are Knopf, who applies the Adlerian viewpoint to a consideration of feminine psychology, and Plewa, whose discussion of ' wandervogelvewegung ' reveals the homosexuality implied therein and the complementary devaluation of women. Other followers of Adler are Squires and Bierer; this last applies Adlerian concepts to the problem of ' situational treatment ' as opposed to mere occupational therapy. Greene comes very close to Adler when he gives the essential causes of stuttering as constitutional emotive hypersensitivity, psychic trauma and weakness of vocal mechanisms.

Individual psychology, then, is based on the egoistic side of our natures, on the striving for power as a compensation for inferiority. It emphasizes all that is domineering, cruel, hard, and hating. All that is soft, tender, and loving, all that is peculiarly feminine, is depreciated and neglected. Neurosis arises as an attempt at freeing oneself from the feeling of inferiority, finding an outlet in a small family circle, larger social units being pushed aside and ignored. The estrangement from communal life leads to phantasies that are for the purpose of evading reality, followed by a kind of anti-social revolt. The

cure will therefore lie in such re-education of the patient as will result in a relinquishing of this striving for socially useless power and the regaining of social interest, moulding his reactions into that form of egoism which, being in keeping with herd standards and needs, is also altruism.

Of late, individual psychology has made considerable progress, largely because of the commendable emphasis which it lays on the social aspects of adaptation. It has become an important agent in the furtherance and teaching of Mental Hygiene, as it has in the treatment of childhood difficulties and abnormalities. It is of course much more ' normative ' than psycho-analysis; the individual psychologist has to become a teacher and giver of laws, and the moralizing tendency is very evident in some recent books, such as Crookshank's work on sexual problems. Adler's struggle for social superiority can also be criticized as being based on a highly abstract aspect of civilized behaviour, one the adoption of which creates as many difficulties as it attempts to solve, and individual psychology is perhaps not as prepared to face difficulties as psycho-analysis. Crookshank has been more thorough than some in this respect, but it is interesting to note that he retained in his writings several Freudian conceptions. Adler himself, however, is sufficiently confident to say (quoted by Suttie) in the concluding sentence of one of his articles: ' We are so well provided for in the matter of methodology that we do not need to worry about having overlooked important points.' Such a pronouncement would be striking enough if made in connection with a technique only, or a form of Mental Hygiene propaganda, but when used in relation to a definite ' psychology ', it cannot but weaken any sympathetic attitude with which the subject might be approached.

CHAPTER V

JUNG'S ANALYTICAL PSYCHOLOGY

AT one time the Vienna School of Psycho-analysis, under Freud, was strongly supported by a group of workers in the Burgholzli Asylum in Switzerland.[1] These gradually became the Zürich School, and leadership was finally assumed by Jung. Before long, Jung began to diverge considerably from Freud, and in order to distinguish his own views from the Freudian ones he grouped them under the name of ' analytical psychology '.

One of his early contributions to psycho-analysis was his elaboration and application of the association test already used by Wundt. A hundred words are employed, and as each one is read out to the subject, the latter responds by speaking the first word that occurs to him; a note is made of each response as well as the time taken in responding, the reaction time. Now when a stimulus word is given which tends, in the patient's mind, to associate with any buried or unconscious cause of mental conflict, an emotional reaction is evinced, and as a result the patient either fails to react at all, or reacts in an unusual way; this is his means of defence against allowing direct recognition to the repressed material that would otherwise have become conscious by association. We can thus recognize what are known as ' complex indicators '—that is, certain stimulus words that evoke such abnormalities of reaction as point to a buried complex having been touched. And by grouping together, after the test is over, these critical stimulus words (and also by obtaining further free associations from them), one is able to gain some general idea of what the complex is about. The test provides a useful, though necessarily superficial, orientation.

The more important complex indicators are: (1) Long-delayed reactions, as though the patient were trying to reject the first spontaneous association (tending to evoke unpleasant memories) in order to find other, more innocuous ones. (2) Failure of reaction, when the patient apparently ' cannot think of anything

[1] It was just before the birth of psycho-analysis that, already from Zürich, came a monograph by Peyer on frustrated sex stimulation in anxiety reactions.

to say '. (3) Failure to be able to reproduce in a repetition of the test the reactions and replies given in the first instance. (4) Repetition of the stimulus word before responding to it. (5) Unusual behaviour accompanying the reaction, such as restlessness, laughter, etc. (6) Unsatisfactory reactions. Of these several varieties are described. For instance, the reply is too long; instead of consisting of one word, in accordance with instructions, it develops into a series of words, even actual sentences, as though the patient felt himself incomplete, or had a need for explaining himself. Again, the reactions may not be objective enough, every stimulus word being taken as a personal question, the patient reacting to it emotionally. On the other hand, the true effects of the stimulus word may be masked by what might be termed ' too easy ' associations that mean nothing, such as ' opposite ' associations (black—white; good—evil), or ' clang ' associations based upon similarity of sound (bench —clench; billow—pillow).

It is possible to recognize different types of subjects from these tests, according to their predominant reactions. Thus, apart from the objective type—the normal one—and the ' complex ' type, we have the definition type, where the stimulus is ' explained ' by the response (knife—for cutting; sorrow—sadness), and the predicate type, where the stimulus word is evaluated (flower—pretty; sleep—pleasant). It would appear also that by means of this test it is possible to find familial constellations, that is, certain outlooks—evidenced by particular reactions in the association test—that run through a family or part of a family. Mother and daughter often exhibit similar, even identical, reactions, owing to the influence of the common milieu in which they live. This test, which has been used extensively by Rosanoff, has been particularly investigated by Fürst and Wehrlin. More recently, interesting analogies have been found, by means of this test, between the twilight states of encephalitis lethargica, dementia præcox, and some of the epilepsies. Under etherization, this test has been used in dementia præcox by Claude and Robin as an aid to prognosis.

In the field of psychiatry Jung has made several important contributions, the best known being his psycho-analytic interpretation of dementia præcox. He, moreover, criticized Bleuler's theory of schizophrenic negativism. The principle of ambivalency and ambitendency in schizophrenia was described by

Bleuler, who showed how the unsuitable, impulsive, negative tendency was expressed side by side with the positive, normal one. Jung argued that the negativism was merely another name for a resistance, set up by a buried constellation, in fact by a complex. Bleuler himself admitted that the negative action was apparently not accidental; it was actually preferred. Jung saw in this fact a negation of the primary importance of ambivalency. Indeed, latent ambivalency is everywhere, and is not peculiar to schizophrenia; what is characteristic of that disease is the intentional contrast between the two trends. Therefore schizophrenic thought disturbances are merely the result of a complex.

Rather than discussing further the psychopathology of dementia præcox, the result of Jung's original views having been incorporated in general psycho-analytic theory, we should turn to Jung's divergence from and renunciation of psycho-analysis. Maeder was one of the first modern psychologists to emphasize the prospective character of dreams and the way in which they showed a striving after something new, after some way out of an impasse; and Jung followed up this teleology of dreams more and more extensively. The dream, according to him, presents a subliminal picture of the dreamer, a view of the material just below consciousness; and though it is true that the dream associations will cluster round some topic that may be part of a complex, yet to reduce the whole of the dream to terms of past repressions is only half interpreting it. The human mind cannot be fully comprehended if regarded as nothing more than the result of the past; it is, too, a preparation for the future; it is Becoming as well as Has Been, and therefore any analysis of it must include reference to its aims and to that which it is trying to realize within itself. In this connection the dream must therefore be regarded as partly determined by the future. The unconscious material expressed in dreams is not only a release of infantile and other repressed wishes; it is much more. It is an attempt at compensating for the one-sided attitude of consciousness by means of the repressed and opposite attitude, and that for the definite purpose of advancing the individual's adaptation. Hence the method of Jungian interpretation is not reduction but, by enlarging the dream meaning through directed association, an amplification. The dream is too scanty a material in itself and must be enriched by the addition of analogous material.

Freud admits the precipitating cause of neurosis, but sees in this factor, his libido frustration, an event insufficient in itself without the constant ' pull ' on the libido from behind, from the position of childhood fixations. In other words, the effect of the precipitating cause is due to the earlier fixations. But with Jung the explanation is different. The present-day difficulty, the obstacle (whatever may be its nature), is sufficient in itself to start the libido ' regressing ' back to earlier forms of expression; in the final instance, to phantasy. These old forgotten phantasies are thus reanimated and puffed up by regressing libido, but remove the present obstruction and they will again fall back into the limbo of inactive and forgotten memories; they have no dynamic force in themselves. (In this connection, compare Janet's substitution of ' parties supérieures ' by the ' parties inférieures '.) To Jung, fixation appears as normal, and neurosis is primarily due to the obstruction to adaptation resulting from a present-day difficulty. In the dream, therefore, he sees an attempt at solving this difficulty, at pointing a way out and securing a reconstruction of the personality. In so far as the way in which, consciously or unconsciously, we attempt to solve any difficulty is by analogy with a previous one, the dream is consequently built round memories of past problems.

There are two reasons why dreams are so full of sexual symbols. Firstly, our earliest difficulties are too often of a psychosexual nature for these experiences not to have had an important educative effect, and we are apt to regard our present troubles from the same angle that we viewed our sex problems of childhood. Secondly, the dream is a primitive and therefore necessarily symbolic form of thought. But the early symbolisms of the race, those we have inherited and are thus the ones our unconscious has to utilize, are predominantly endowed with a sexual connotation. And so, instead of merely regarding the present-day symptoms and dreams as symbols of an infantile past (this being the whole of the psycho-analytical view), Jung further interprets the infantile material itself as the symbol of something actual, even prospective, bringing the emphasis back to the aim or goal after which the unconscious is striving, and which is expressed by making use of infantile memories and phantasy. The very occurrence of the father or mother in dream pictures Jung does not believe to be representations of the real parent, but of a more general and idealized conception of what the parent comes to

stand for. For instance, in the case of the father, the parent ' imago ' (to use Jung's term) symbolizes primitive ideas of power, authority, despotism, etc. It is as though the reminiscences of personal experience, after becoming unconscious, link up with, and are used to express, fundamental ideas and trends present in mankind.

Having thus denied the universal (and actual) sexual significance of symbolic thought in general and dreams in particular, Jung consequently has to relinquish any exclusively sexual conception of the libido. Even when still in moderate agreement with psycho-analysis, he leaned towards admitting the validity of Adler's views, at least in a proportion of cases. As a result, he came to divide neurotic—and normal—beings into two main classes. The first class consists of ' introverts '; they are introspective, subjective in their outlook, shut in, and in order to protect themselves against the disturbing influence of their surroundings the better to indulge in their phantasies, they erect a system of defences against reality; these reactions depend on what Adler has termed a ' guiding fiction '. The second class includes the ' extraverts ', who go out of themselves to meet and merge emotionally with their environment, who to some extent identify themselves with the outside world; it is to these that the Freudian formulations apply. In the first type, all is striving for power, sex-behaviour being but a special case of attaining personal superiority. In the second one, all is sex, power being in the first instance nothing but sex-potency, although it may be transformed secondarily into other kinds. Hence the libido is now to be regarded, according to Jung, as a species of fundamental urge, a psychic energy, corresponding to Aristotle's norme or Bergson's ' élan vital ', that is primarily neither sex nor ego, but neutral, capable of expressing itself in either sex or ego sphere, or in both.

More recently, the libido has ceased to occupy as central a position in Jung's views as formerly, and more importance is now attached to the question of mental functions. A passing glance to what some have regarded as Jung's return to the old faculty psychology might be given. There are, in all individuals, four main functions by means of which their possessor adapts himself to his surroundings. These are thinking, feeling, intuition, and sensation; but they are never equally developed in any one person. Usually there is one of these functions that dominates the others, and there can be recognized four types of mental

make-up: the thinking, feeling, intuitive, and sensational types. The first two, who adapt themselves principally through thinking or feeling, are judging types; they weigh up and evaluate; they are therefore termed the ' rational ' types. But the other two represent less evolved mentalities, less ' conscious ' ones; their intuition or sensation are more elementary forms of thinking and feeling. They are ' irrational ' or ' empirical ' types in that they do not judge and evaluate, but respond to their environment in a manner that is either more impulsive, or else more uncritically ' habitual ', and they are therefore not as discriminating. Now, for any function thus to take on the leading rôle, its opposite must be largely repressed. For example, the thinking type represses feeling, and the sensational one intuition. Hence the inferior or repressed function will make its effect felt from the unconscious, and in doing so it will perform the necessary duty of compensating for and correcting the one-sided methods of consciousness; unless, as happens in neurosis, the repressed function is suddenly expressed with such vigour as to obscure completely the other function that was once the dominant one. (For a further description of these types see Chapter XXII.)

Allusion has already been made to the characters of introversion and extraversion; these depend not upon any question of mental *function*, but, as we saw, upon one of *attitude*, a way of regarding the real world around us. And just as the inferior function is repressed and largely unconscious, so is the secondary attitude. An extravert's unconscious is introverted, and vice versa. The extravert seeks contact with the world, he goes outside himself to meet it, and his reactions are directly related to the present condition of his environment. But the introvert behaves otherwise; he shuns the world, resents it, withdraws into himself, and his attitude is more subjective than objective. His thoughts—if he is a thinking type—are elaborated in accordance with what appeals to him, what is happening right deep down within himself. His outlook is not so subject to the constant correcting influence of reality, for it is principally moulded by his own imaginings and phantasies, originating from a hidden and a deeply unconscious spring. The mental processes of the introvert are the result of more archaic and ill-recognized trends within himself than of a clearly apprehended environment.

The material utilized in the production of his phantasies and subjective feelings is not the result of what is merely unconscious,

but of what is also elementary and primitive. It links up with certain primordial images and symbols that are to be found in all races, at all times: those fundamental contents of myths and folk-lore that represent the infancy of the human mind and act as the background of all human thought and emotion. It is at this point that a further divergence from psycho-analysis occurs. Whereas Freud does not deny heredity as a factor in mental make-up and modes of thought, yet he makes little attempt at either describing its characters or evaluating its purpose. Isaacs, however, finds that children have an inherent drive towards morality that does not have to be created. While it is true that Freud admits the likely presence of an inherited nucleus in the super-ego, and hints at a kind of racial memory in his book on Moses and Monotheism, yet he has not developed fully the idea of inherent mental attributes other than instinctive force. Jung, however, ascribes considerable importance to it. The unconscious does not only contain all that was once conscious but has since been repressed—that is, definitely ' personal ' material—for there are certain elements in the unconscious that are primordial, that have never been conscious and therefore personal, that are elemental thought-feelings that have been handed on as a legacy from ages past to all succeeding generations. Hence we must recognize a ' personal ' or ' repressed ' unconscious, and a larger, more comprehensive ' universal ' or ' impersonal ' (' collective ') unconscious, the latter being the repository of those ancient images that Jung terms ' archetypes '. They express the primitive concepts, aspirations, and needs of the human race, they include tendencies towards certain ancestral interpretations of experience, and they it is that are so particularly effectual in determining the reactions of the introvert. (See also Chapter XXII.)

These archetypes represent not only the past stages of racial development but the future potentialities too. In the collective unconscious are to be found the loftiest as well as the lowliest of human needs. The moral sense, that to the Freudians is merely the result of parental and other influences, appears to Jung as a primary function existing apart from social pressure; conscience is thus a compound of parental and social precipitates (super-ego and ego) with racial and universal components (parent imago). In fact, all the spiritual aspirations that have so often been reduced to the status of mere ' symptoms ' by other schools are

here granted a reality that, though difficult of translation into verbal imagery, is yet the cause of the teleological nature of all human behaviour. Jung would regard as the expression of such archetypes all that which has as yet no verbal concept (e.g. the Kingdom of Heaven). Even the sexual fact of birth may achieve a spiritual importance in virtue of the symbolism it supplies. Jones defines a symbol as an idea that has passed from the stage of symbolic equivalent, when it received its meaning from another idea by association, and comes to replace the other idea in a context where the latter would logically appear. This is a definition that fits the psycho-analytical view of symbols as created through the activities of the repressed unconscious, but the symbol originating from the archaic unconscious of analytical psychology is not real and cannot be expressed verbally; even though its rational components can be intellectually experienced, its irrational ones can only be felt. Behind our aims for sexual happiness (Freud) or social power (Adler) there lies a greater and vaster purpose, one that will never emerge in any reductive ' nothing-but-this ' or ' nothing-but-that ' interpretation of other schools, but which is yet expressed as a blind and groping (and to us, therefore, primitive and irrational) reaching out towards the universal and spiritual. The archetype is indicative of a psychological necessity; it corresponds almost to Gestalt in the broadest conative sense of the word; it is the eternal presence of our timeless knowledge.

The introvert is in closer contact with his impersonal unconscious than is the extravert; his reactions are therefore expressions of the inherited and collective material, and are only in a minor way conditioned by outside stimuli. Because collective material is so primitive and archaic it is especially apt to be expressed in that symbolic, one might say mythological, form that is typically found in autistic thinking. It might perhaps be pointed out, in this connection, that ' autistic ' is not used in the same way by all writers. For instance, according to some authors, it seems to correspond to Bleuler's ' dereistic ' thinking. This is a form of thought that is certainly subjective, not in relation to present facts and evidence, divorced from the correcting influence of intelligence and largely under the control of unconscious factors; probably, however, these unconscious factors are still personal in that they were once conscious, in keeping with reality and the product of experience. Jung's

autistic thinking is rather more: it is primitive, more impersonal; it is based on material that has never been personal but is collective; it embodies a reanimation of primitive aspirations and trends clothed in the language of the primitive—namely, phantasy. Put another way, phantasy is here regarded as the primitive and correct mode of expressing primitive thought and not (as in psycho-analysis) a primitive method of expressing conceptual thought for the specific purpose of disguising its contents from conscious recognition.

Jung finds that during the early stages of analysis the symbolism of dreams is interpretable on a reductive, causal basis; in other words, it expresses what has been repressed and is personal; it has a ' cause ' in that it is the result of past experience. But as analysis progresses certain symbols may appear that are archaic and universal in character, and no longer link up with any personal reminiscences of the subject; they are really the expression of the impersonal unconscious and its collective images. At the same time, whereas the physician was, through transference, represented in dreams as a surrogate of influences dating back to childhood—father, mother, brother, etc.—he now comes to stand out as a more primitive figure, endowed with general mythological attributes, good and evil, divine and demoniacal. This, too, is a projection of the unconscious; not of the personal unconscious, as in transference, but of the deeper, collective unconscious. The trends thereby expressed will, through analysis of this projection, also be interpreted and psychologically explained, but as these must be explained by reference to primitive symbols, it follows that the physician will have to give his own interpretations, thereby adopting a very active and moral rôle.

When conflict occurs between what is personal and what is collective, it must be treated as a ' now ' problem and not as the final effect of an old problem. It shows that there is an attempt on the part of the unconscious to direct development further. At first an individual can best find his place in the world by developing his naturally predominant attitude and function, but this may have to be compensated for in later life by giving place to the unconscious function and attitude, otherwise stresses occur because the inferior function has yet a rôle to fulfil. Just as there occurs an emergence from unconsciousness in youth, so will there be an inevitable return to unconsciousness after

middle age, a return that is accomplished via the renewed acceptance of such collective archetypes as the belief in survival after death and the relinquishing of the goals of life. As emphasized by Rombouts, there is always a growing need for the supra-personal in later life. Hence the likelihood that the born extravert will adjust best in the first half of life and the born introvert in the second. When regression occurs, owing to some adaptive difficulty, it should be regarded not (as in psychoanalysis) as a mere return to a timed phase of the past, but as a resumption of earlier archaic reactions that lead to the primitive unconscious in order to link up there with material that requires to be brought up and assimilated to consciousness, thereby enriching it with the condition necessary for further progress.

As more and more of this collective material is brought up, analysed and explained, interpreted and assimilated to consciousness, an extension or enlargement of personality necessarily results; but this is at the expense of individuality. What is individual is not merely what is conscious or personal; for in the long run the contents of consciousness cannot be anything more than an excerpt of what we possess, potentially at least, in common with all mankind. What *is* individual, however, is the *selection* or particular grouping of these excerpts from the collective. Therefore, as more collective material is acquired from the impersonal unconscious for conscious and personal use, so is personality enlarged; but so, too, is individuality diminished. The individual tends to identify himself and merge more and more with what is collective and universal. He gets sunk in this archaic world of primitive images and his very conception of himself will approximate more and more to a state of God-almightiness, the result of possessing consciously what the race carries within itself unconsciously. This feeling of God-almightiness is due to the universal validity of this collective material; it is universally valid, if made conscious, because it is an expression of what is inherited by all.

To counteract this danger, Jung would treat these symbols from the collective unconscious not only reductively as an expression of the past of the race, but synthetically also, as a sign that the unconscious is trying to exert a directive influence upon the individual's life-line. These symbols should be interpreted teleologically, as indicative of fundamental strivings that are aiming at guiding the personality along certain lines, certain

necessary paths of development and fulfilment. It is only by thus giving these symbols a ' final ' or purposive value as well as a ' causal ' one, that we can adjust the unconscious to the conscious, the collective to the individual, the non-rational to the rational, without either principle doing violence to the other. This means that the physician's explanations must, of necessity, become educational and morally conditioned, thus performing a task that psycho-analysts refuse to undertake.

The views of Jung concerning the structure of the mind, without which our review of analytical psychology would be incomplete, are briefly as follows. The conscious part of the psyche is the one that is in direct contact with external objects, and the outer ' layer ', so to speak, is the ' persona ', that part of the self that is visible from without and expresses personality. The central ' core ' of the conscious is the ' ego '. Below the threshold of consciousness is the repressed material, the personal unconscious. Deeper again is the racial, inherited content of the impersonal unconscious, and in relation to the demarcation between personal and impersonal unconscious is found what is individual. Lastly, standing in the same relation to the impersonal unconscious as the persona does to the personal conscious, and representing the collective aspect of the self, is the ' animus ' or ' anima '. This is a personification of the unconscious which Jung calls a ' soul ', and it is in contact with inner subjective reality in just the same way that the persona is in contact with outer objective reality. The reason this ' soul ' is either masculine or feminine (animus or anima) is because whichever the conscious persona may be (say male), then in the unconscious is to be found the opposite (here a female) element, representing the individual's generalized conception of femaleness. This anima is often projected on to a wife or mistress, because it stands for an unconscious standard, but in so far as it is repressed it will lead to hatred as well as love and will account for an ambivalent attitude towards the love object. The ' soul ' of primitives is a projection of this anima, as also the Ba and Ka of the Egyptians.

Many of the problems of modern man result from his being torn between pairs of opposites, and whereas freedom in the primitive is achieved through symbolic rituals, in modern man it can only be achieved through a process of ' individuation '. This process of recognizing our universal components takes place in stages.

Stage One is the recognition of our ' shadow ' or ' other self ',

our undifferentiated and unconscious functions and attitudes, as have so often been pictured in, for instance, Shakespeare's Caliban, Mrs. Shelley's Frankenstein and Stevenson's Mr. Hyde. In Stage Two comes the recognition of the anima (or animus in a woman). Too great a hiding of the anima leads to an increase of the feminine needs in the unconscious which are then projected on to women and lead to an over-attachment to women, release from which is pictured by the primitive in rituals (e.g. puberty rites) that mark the newly achieved freedom from mothers and other female influences. In so far as in succumbing to women man is the prey of having thus projected his anima, the conscious recognition of the anima means freedom from the compelling influence of women. This implies a certain isolation that precludes falling in love, though not the free giving of love. Goëthe's Faust projects his anima on to Gretchen, but later he seeks his anima in himself, in the unconscious, as Helena. This anima figure occurs on successively different planes, culminating in the most exalted form, thus achieving redemption by the resolution of opposites.

In Stages Three and Four there is an assimilation from the unconscious of the spiritual factor in man, and finally, a kind of religious rebirth consisting of the realization of a new self built up of a balanced and harmonized admixture of all pairs of opposites, personal and collective, masculine and feminine, material and spiritual.

Before leaving analytical psychology—which has been extensively followed by such as Baynes, Hinkle, Long, Nicoll, Ricklin, Heyer, Aldrich, Jacobi, and to some extent by Gordon —we should notice a further extension of its application in the realm of mysticism, principally due to Lorenz and Silberer. The latter, for instance, admits the reductive interpretation of symbols revealing past infantile trends, as well as Jung's prospective one. From studying the hermetic arts he found that the higher philosophical teachings of alchemy being clothed in the language of chemistry, within every chemical construction of the alchemists was hidden a higher symbolic meaning, alchemy standing thus in the same relation to chemistry as Freemasonry does to masonry. He draws a parallel between the reductive interpretation of dreams according to Freud, the subliminal one of Jung and the symbolisms of alchemy and Rosicrucianism, thereby adding a third interpretation.

He finds that a persistent symbol in dreams gradually changes its meaning and comes to stand out as something archaic. In this he agrees with Jung, but he further shows that whereas this symbolism was first personal and *material*, it finally becomes impersonal and *functional*. That is, it is no longer indicative of mental contents, but of mental modes, methods of functioning of the human psyche. The interpretations of these symbols as part of a wider philosophy he calls ' anagogic ', and the reason why symbols can be interpreted anagogically as well as reductively (psycho-analytically) is because to every philosophical aspiration there corresponds, as a substitute in time of stress, the easier path of regression to the primitive and elementary. It is interesting to note that recently, long after Silberer's original work, Jung has taken up and elaborated the whole question of alchemic symbolization.

Whether Jung be accepted as a prophet of the spiritually real, or as the upholder of the scientifically false, will in the last resort inevitably depend upon the type of individual concerned. It has been suggested that only an introvert can appreciate a psychology based upon the acceptance of what is collective. In any case, the inescapable irrationality of what is hardly even conscious in the greater part of the race must ever repulse those whose training and bias have taught them so to rely upon logical reason as to regard it, to the exclusion of all other functions, as the only legitimate means of learning and adaptation.

CHAPTER VI

RIVERS' THEORIES

THE work of Rivers, first in the field of biology and ethnology and later in psychological medicine, bids fair to leave its mark on English schools of psychology and psychopathology. It is, of course, possible that his views may have to be modified before they can be more generally accepted.

His thesis is generally as follows. Viewed from a biological angle, psychoneuroses should be considered as a solution of a conflict between opposed and incompatible elements of mental activity. Mental events or contents may become unconscious in two ways. When they are wilfully (by a conscious act of volition) made to become unconscious, in the sense that they are less conscious though they may any time become again the centre of attention and are never quite inaccessible to consciousness, they are said to be 'repressed'; when they are unknowingly (though still purposively) thrust out of consciousness, they are then 'suppressed'. Rivers thus used the word 'suppressed' as equivalent to the 'repressed' of psycho-analysis, and 'repression' he employed in a new sense. For purposes of exposition we shall, in this chapter, use these terms in the way in which Rivers understood them.

In association with Head, Rivers showed how there can be recognized, on the physical side, two groups of sensory phenomena, the protopathic and the epicritic. When protopathic sensibility exists alone, it is characterized by its massive localization and by the way in which sensation radiates over large areas, or may even be referred to distant parts. But as epicritic sensibility is developed these characteristics become altered, owing to the cerebral cortex exercising an inhibition over the thalamus sensibility. The latter may, however, reappear in an exaggerated form whenever the epicritic function falls in abeyance, as it may after injury or disease. A similar state of affairs obtains on the efferent side, as when the mass reflex appears when an animal's cord is no longer connected to the brain. And in the mental sphere, a comparable set of phenomena is to be recognized. The lower, more primitive activities are modified and inhibited by the

higher, more recently developed intellectual faculties. In general it may be said that ' only entities are suppressed that are elements of experience (psychological) or of behaviour (physiological) incompatible with later, more refined and discriminatory developments '.

The weakness of the above view is that this inhibition of which Rivers speaks is such as would normally be permanent, and would only allow the suppressed function to reappear under pathological conditions. Yet, in point of fact, many of the classes of phenomena included by him under this heading of inhibition do not seem permanent at all; they may be suspended with ease. Indeed, some of these so-called inhibitions may be just effects of alternation of attention; certain manifestations may seem, in retrospect, to have been unconscious simply because the attention was directed elsewhere.

But to resume the argument. Suppression is mainly directed against such affective or intellectual experiences as have a strong and painful emotional tone. The process of suppression Rivers preferred not to call ' unconscious ', but ' unwitting '. With these ' painful ' experiences may be others, more ' neutral ' ones, still connected with the first by association. Rivers rejected Freud's conception of the dynamic ' wish ', and he followed McDougall in allying emotion and instinct. Anything in the unconscious that is affective must therefore be instinctive.

The distinction between what is instinctive and what is intelligent depends upon the separation of innate from acquired reactions. The characteristics of instinctive action, when contrasted with intelligent behaviour, are firstly that they tend to follow the all-or-none law of protopathic phenomena; therefore the response is never proportional to the stimulus. Secondly, the reaction is unreflective; and, thirdly, it is immediate and uncontrolled.

The instincts were grouped by Rivers under three headings:—

A. Self-preservation (appetites and danger reactions). The danger reactions include flight, aggression, immobility, collapse and ' manipulative activity '. This last is any form of ' doing something about it ', such as firing a machine-gun at an enemy, or barricading a house against an attack, etc. And in these cases fear—the usual accompaniment of danger reactions—is absent. This Rivers ascribes to an inhibition; but others (e.g. McCurdy) would see here merely another instance of shifting of attention

(from the danger to the ' manipulative activity '). Further, if it were a true inhibition, it should be of a much more permanent nature, and the fear should not be able to return as easily as it often does. Nor is it by any means established that the principle of ' manipulative activity ' is in any way part and parcel of our instinctive equipment. The next instincts are:

B. Race preservation (sexual, parental, and tender instincts). Comparatively little was said about these by Rivers. Finally:

C. Herd (suggestion, sympathy, intuition and imitation). Most of the emphasis is laid, in Rivers' work, upon the instincts of group *A*, and Rivers, like many psychologists, was inclined to make the psychology of *fear* the psychology of *all* emotions.

Suppression is probably a fundamental factor even in lower animals, particularly in those in which metamorphosis takes place at some stage in their developmental history. For instance, in turning into a frog, the tadpole has to suppress all those activities and reactions that had hitherto been essential to its aquatic life.

Psychologically, suppression may lead to dissociation, as when experience becomes separated from ordinary consciousness and has a consciousness of its own, which Rivers termed an ' alternate consciousness '—rejecting Morton Prince's ' co-conscious '. In man, it often happens that there is not a complete dissociation in such cases, because a capacity is acquired for switching from the normal to the suppressed reactions, and back again. Further, there is the important tendency for the two kinds of reactions to modify each other and to become integrated into something new, a something that expresses both the normal or higher reaction and the lower, suppressed one; this is an epicritic-like modification of the primary dissociation tendency.

Coming on to suggestion, he related this to instinct, largely owing to its ' unwitting ' character. It includes imitation—in its unwitting forms—termed mimesis in order to distinguish it from voluntary imitation. Under the same heading he included sympathy (of McDougall's ' primitive ' variety) and intuition. This last, which is used by different authors in so many different ways, was regarded by Rivers as meaning the unwitting recognition of cognitive activities in another mind. Suggestion is intimately connected with the potential activity of suppressed tendencies. Hypnotism is the artificial method for wittingly utilizing a group of processes that usually occur unwittingly; in

other words, it is a directing of the instinctive process of suggestion while annulling the inhibitory influence of intelligence.

Psychoneuroses are due to a loss of balance between (1) instincts and (2) the controlling forces, this loss resulting in an increase in (1) or a weakening of (2). The type of neurotic reactions that ensue will be influenced by the nature of the instincts involved and the methods taken to restore equilibrium. Stated in general terms, hysterical symptoms are the expression of a phylogenetically ancient instinctive reaction substituted for higher forms of reaction to danger.

Rivers thought it possible that the reactions and mechanisms developed in connection with any particular instinct might be utilized for the expression of another instinct, and he believed that during conflict energy may be increased.

Sublimation, according to him, derives its energy from this increase; therein he disagreed with the psycho-analytical view of a constant total psychic energy or libido, on which the Freudians base their theories of object-relationships, narcissism, etc. As to regression, he compared it to Hughlings Jackson's ' devolution ' that affects the higher, later-evolved functions first. The reason why dreams are symbolic is not because the symbolism is meant to provide a means of disguise and evasion of the ' censor '; the symbolism is nothing more or less than the natural and only means of expression of a lower (protopathic) level of thought that has been released from the inhibiting influence of the higher (epicritic) levels. Here, then, his position seems to provide a view intermediate between Freud's and the one of Jung concerning the symbolic language of the collective unconscious. His view of dream symbolism thus agreed closely with McDougall's.

From the angle of action Janet approaches the same point when describing a hierarchy of acts comprising reflex acts, perceptive acts, social acts, elementary intellectual acts, acts on a verbal plane, considered acts, rational acts, experimental acts and progressive acts. The earlier members of the series are far less ' conscious ' than the later ones, and he points out how a subconscious act is merely one that has preserved an inferior form.

It would be beyond our purpose to discuss all the implications of Rivers' views and their relationships to other schools, but we might, however, note a tendency that has appeared of late towards adopting a similar point of view in the specific instance

of the post-encephalitic mental disorders. Auden has suggested that the character changes resulting from encephalitis lethargica may perhaps be regarded as caused by a reduction in epicritic control, this leading in turn to a release of protopathic levels as shown in the all-or-none type of irritability, the failure of self-criticism, etc. Other superadded psychological symptoms—also probably due to a loss of epicritic inhibition—may appear, such as tics and compulsions. Metfessel has emphasized the all-or-none nature of 'emotional' thinking. Jastrow has drawn interesting parallels between the three antitheses, protopathic—epicritic, vegetative nervous system—central nervous system, and phantasy—real thought.

Based in part on Rivers' work are the recent views put forward by Diblee when attempting to distinguish between instinct and intuition. *His* use of the word intuition is to mean a form of extra-conscious thinking. His approach is essentially neurological. In accordance with Head's work, he takes up the position that in so far as the optic thalamus is the end-organ for incoming sensory stimuli, it is the centre for feeling-tone, and it is only after impulses have passed beyond, to the cortex of the brain, that they become categorized as knowledge. It is this thalamic centre that Diblee, supported in this by Bard and Cannon, regards as the seat of instinct-motivation, the instincts providing the starting-point for innate behaviour. Over these instinct activities the cortex exerts a controlling influence.

Now the cortex, although it is the organ of consciousness, is nevertheless involved in extra-conscious activities. One of these activities, one of which we are not consciously aware and one which—because it is a cortical function—is also an intelligent one, is the one which is evidenced as what Diblee terms 'intuition'. Intuition is here looked upon as an epicritic-like adjustment to intellectual situations, while instinct is a protopathic-like adjustment on a perceptual plane. Levels of intellectual reactions have been recognized by others too, for example, Kretschmer, who uses the term hyponoic to denote more primitive states of intellectual processes.

There is then, in all sensory experience, a protopathic element essential for the thalamic (or instinctive) initiation of action, and an epicritic one necessary for the cortical function of contemplative intelligence. This intelligence, when evidenced as intuition, is non-conscious, and thus provides support for the regarding, by

Jung, of intuition as an intelligent but non-logical form of unconscious thought.

We cannot help, in connection with these views, being reminded of Kinnier Wilson's suggestive hypotheses concerning transcortical inhibition and control, and the nature of volition, as well as his researches on the voluntary control of an involuntarily decontrolled mechanism.

CHAPTER VII

WATSON'S BEHAVIOURISM

BEHAVIOURISM has so far had little to contribute of direct use in psychiatry and psychopathology, if only on account of not speaking the same language. It is yet possible that at some future date a *rapprochement* between the two methods of study may be achieved. Already somewhat of a common ground is suggested by the behaviouristic study of childhood and mental development; this alone would make it worth our while to include behaviourism in our general survey.

Behaviourism is the logical outcome of applying Pavlov's work on conditioned reflexes to a purely objective type of psychology. The chief protagonist of this comparatively recent movement is, of course, Watson, and with him are such others as Thorndike, Bode, Abbott and Holt. Behaviourism is characterized by two principles, one as to the nature of the subject-matter of psychology, and the other as to its method. As its name indicates, behaviourism insists that the study of psychology should be that of behaviour, and not of consciousness. Consciousness is a metaphysical concept which cannot be studied objectively and scientifically. It may therefore be said that on these terms behaviourism is not psychology, while still recognizing that there may well be a legitimate scope for a science of behaviour, and it has been suggested by Dunlap that the term ' praxiology ' might be introduced to designate this new science; Hunter uses the term ' anthroponomy ' for his behaviouristic outlook.

As regards the new attitude towards consciousness:—When several impulses conflict with one another, the reaction resulting from them may be delayed instead of immediate. Now, it is in connection with this delay that ' deliberation ' is inferred; it is during this apparent suspension of behaviour that consciousness and its attendant mental processes have been postulated to occur. But, the behaviourist argues, when behaviour is not immediate —or ' explicit '—it is not really suspended, although it appears delayed; it is merely ' implicit '. In so far as we use language in order to think, thought is not a silent process; it consists of the inaudible speaking of words and phrases. In early stages

of development language tends to be invariably overt, but social pressure causes it to become a whisper; then, as the vocal cords relax, it becomes mere changes in innervation, implicit, in other words thought. Implicit behaviour therefore consists of imperceptible internal activities involving the speech mechanism, and beyond this we are not justified in attempting to describe so-called thought processes, any more than we are in using the concept of consciousness, except in the mere neurological sense of awareness.

It follows from thus rejecting consciousness that when it comes to a question of method, then behaviourism will find little to say in favour of such a subjective means of study as introspection; it rejects introspection for several reasons. It is too individual a method and the results obtained through aggregating the material obtained by series of different individuals' introspections are even then uncertain; it often leads to contradictions that are difficult of resolution; introspection is more descriptive than really explanatory; and finally, it is, at its best, incomplete in the material that it can survey.

Introspection has been described as an ' inner sense ' comparable to the ' outer senses ' by means of which we apprehend our surroundings; it is a cognitive process. But if we divide cognition into presentative—outer—processes (sensation and perception) and ideational—inner—processes (memory, imagination and thought), then introspection must, in part, be an inner ideational process. Thought includes conception, judgment and reasoning, and the highest form of conception is the conception of self, which implies self-consciousness. Consciousness again. And not only is consciousness outside the scope set for themselves by the behaviourists, but in so far as introspection is a mental process, it is bound to affect other coincident or subsequent mental processes, including those that are being introspected. For instance, the more one tries to introspect an emotion, so does that emotion become less and less distinct; in fact, it fades away. To use James' expression, it is ' like turning on the gas in order to see what the darkness looks like '.

The fact is, we cannot observe mental events in the happening; what we really do is to observe them in retrospect. And yet it is not the kind of retrospect that is usually associated with past events of some time ago; it is more the observing of a point of time intermediate between the present and the past. The

moments of consciousness do not follow each other in such a way that each one is distinct from the next; they overlap. Suppose that during a moment of consciousness B we introspect: we are observing the events of the preceding moment A, while A is fading; but it has yet not quite passed away. What we are observing in this case is not the present, nor is it such a past as involves the functioning of memory; it is memory in the making; primary memory, as it has been called, corresponding to Semon's akoluthic phase of engraphy. In introspection, we have not got to recall, by means of memory, what we wish to introspect, because it has not quite left our consciousness; nor yet is it still actual, for already it is passing away. We can never witness by means of this inner sense—introspection—what is happening at the moment, but only what is nearly past. And to call introspection an inner sense is misleading, for any information it may convey is not transmitted through any sense organs such as come into play in the case of our outer senses. That is why behaviourism limits itself to the study of behaviour, and why it does so by means of exclusively objective methods.

For the behaviourist, heredity counts, but only as a physical basis. We may inherit certain physical peculiarities that assist or hinder the development of particular mental characteristics, but it is not these characteristics themselves that we receive from our forbears; all we get is our anatomy. Our equipment at birth consists merely of a few innate patterns of behaviour, in the nature of groups of reflexes, which can then be conditioned and unconditioned in the manner described by Pavlov. These innate reflexes are shown at, or soon after, birth, and three possible fates are in store for them. They may—as some do—die away and become eliminated from behaviour; they may persist unaltered; or they may become conditioned through the influence of the environment. Some of this conditioning may occur so early in life that the resulting new responses may easily be taken for inherited instead of acquired. The conception of instincts *à la* McDougall finds little place in behaviourism, as most complex patterns of responses are here ascribed to early training rather than to innateness. So much is everything ascribed to conditioning, and therefore the result of outer stimuli rather than directed from within, that even intelligent adaptation is regarded, by Thorndike, as a random process.

The study of the emotions is principally carried out experi-

mentally, in the child-laboratory. Emotion is inferred from the presence of excessive reactions and divergences—as compared with a simple, direct response—these being subdivisible into (1) accessory reactions, (2) slowed reactions, (3) non-reactions, (4) blocked reactions, (5) negative reactions, (6) 'anti-social' reactions, and (7) substituted reactions. In infants that are as yet unconditioned by outside influences, it would appear that only three primary emotions can be definitely discerned: fear, rage, and love. The only kinds of fear that are unconditioned —innate—are the fear of noise, and the fear of loss of equilibrium. Rage is only evoked by interference with bodily movement, and love only occurs in response to stimulation of what might broadly be called the erogenous zones. (This would provide support for the definitely 'erotic' source of all affection, as upheld by the Freudians.)

Fear may very early be conditioned, and it is because this fact was not sufficiently recognized that so many kinds of fears used to be thought of as inherited. For instance, it has been shown that an unconditioned infant is not afraid of a rat or of any other furry object—as was at one time believed. But by combining the presentation of a rat with the production of a loud noise, this fear may be conditioned at one sitting. It may, of course, be later redifferentiated so that certain furry objects, and not all, cause fear. Again, the fear of water, as on being immersed up to the neck, used to be regarded as innate in infants. Actually, it is probable that it is early conditioned as a result of the buoyancy of the water leading to a feeling of insecure equilibrium.

A passing reference might here be made to Frost's behaviourism, which actually antedated Watson's by a few months. It is peculiar in that it does not totally reject consciousness—though it does introspection—and yet uses the word in a sense that is more physiological than psychological; further, it employs a somewhat barbaric terminology. The 'immediate response' of Watson is here described as being due to a stimulus arousing into activity a simple sensorimotor path. Any such path, from which issue motor forms of behaviour, Frost calls an 'alpha-arc'. But whenever an alpha-arc functions so as to include the specific cortical structures, additional nerve cells are brought into activity, these constituting a 'beta-arc'. Beta-arcs, then, are those higher cortical paths that are aroused by the functioning of an alpha-arc and not by an outside stumulus directly. In the

activity of this beta-arc, we see the essentials of Watson's ' delayed response ' or implicit behaviour. Now, an alpha-arc may be said to be ' aware ' of the stimulus arousing it; and a beta-arc may be ' aware ' of the alpha-arc arousing *it*; but no arc can be aware of itself, nor does this awareness involve what psychologists have termed consciousness.

All behaviour is classified as preconsciousizing, consciousizing, or consciousized. Reflex or mechanical action is preconsciousizing (it involves alpha-arcs that have never become linked to beta-arcs); a consciousizing process is one which involves reference to some preceding nerve process rather than to an external stimulus (therefore it occurs in a beta-arc); and consciousized behaviour is that which has *become* mechanical as a result of habit—i.e. of several consciousizing processes. (Hence these occur in alpha-arcs that were once linked to beta-arcs, but are no longer so.) For example, the functioning of an alpha-arc on seeing something red gives rise to an ' awareness ' of red; and if it further leads to the functioning of a beta-arc, then the result is a ' sensation ' of red.

The behaviourism we have been describing has been, in the main, Watson's; but we can recognize, in behaviourism, three main trends, according as the emphasis is placed on the question of reflexes (the physiological approach), of habits (the psychological approach), or of experience (the ' sociological ' approach). In the first group belong the work of Loeb, Pavlov, Watson and Lashley; in the second, that of Cattell, Thorndike, Woodworth, Terman and Dunlap; and in the third, the contributions of Dewey, Bode, Kantor, Bernard and Dearborn.

The strict behaviourism of Watson, as we have seen, rejects consciousness, as it does also the idea of ' purpose '. Further, it neglects conative unity. Conation is more than mere reflex, and if we lose this idea of unity we lose also our concept of disease and mental disorder as a derangement of ' personality '. There are, however, those—the purposive behaviourists—who, while denying consciousness, accept purposiveness, and recognize instinct as different from mere habit formation. Such are Tolman and Perry, and their point of view receives much support from the German schools who link up purpose with ' Gestalt '. Then we have the near-behaviourists, such as Allport, who neither accept nor deny consciousness, and maintain a non-committal attitude towards it. Allport leans towards the

acceptance of purpose in his treatment of his ' prepotent reflex ', which controls and secures the ends of adaptation and survival. He has six prepotent reflexes, all with high protective and adaptive values, and these take precedence in the control of the final common pathway. Perhaps this prepotency (in which resides the purposiveness of these reflexes) derives from the inherent dammed-up energy such as is postulated by Woodworth in connection with his ' reaction tendencies '.

This brief account of behaviourism must suffice, but it will already be apparent that many links may be effected some day between it and other lines of approach. Perhaps the gradually accumulating knowledge concerning the conditioning of emotional reactions in early years may provide a physiological explanation, for instance, for some of Freud's ' fixations '. The delicacy and appropriateness with which an unconditioned reflex can become conditioned are just the measure that a protopathic reaction may become epicritic. Here may be a common ground between Pavlov's, Rivers' and Freud's (primary and secondary processes) interpretations of adaptiveness applied to raw material. Similarly, Wohlgemuth correlates Pavlov's transference of feeling with certain forms of repression. Mira follows Pavlov in his work on anxieties in which he recognizes three possible states. Terror from general inhibition, leading to stupor and catatonic states; panic due to cortical inhibition, leading to twilight states and fugues; and anxiety, which is a mixed condition, leading to hypochondriacal states, phobias and hysterical fits. Some of Pavlov's work relating to strength of stimulus is of interest. He finds, for instance, that as the strength of a stimulus is increased, the response increases too until a maximum point is reached, after which the response diminishes until it is no more than that which results from a weak stimulus; then it grows less still, until finally an actual *inhibitory* effect is produced. The possible bearing of the above on psychopathological mechanisms has been discussed by him, and recently he has attempted to offer some explanation of the main features of obsessional neurosis and paranoia. Be that as it may, no new approach, no new method of interpretation, must be neglected if we wish to harmonize into one coherent whole the different systems of study, all of which have their mite to contribute towards a more perfect understanding of the human organism under all its aspects.

CHAPTER VIII

KEMPF'S PSYCHOPATHOLOGY

KEMPF'S work is largely a synthesis of Freud, Adler, Sherrington, Watson and others. It has been proclaimed of first importance in America, although in this country there has been a tendency to consider it as very cumbersome as regards both its terminology and its classification of mental disorders; it is also accused of too much neurological tautology. Nevertheless, it has made its influence felt, as evidenced for example by Harrington.

Kempf takes an essentially physiological view of mind, yet does not attempt to dispense with such psychological terms as consciousness, emotions, ego, etc., like the behaviourists do. Mind he does not regard as the product of brain only, any more than he does personality; he views it as resulting from the activities of the whole organism; especially the autonomic nervous system. All our affective difficulties are dependent upon certain needs or cravings, originating in the different segments of the autonomic apparatus, and these cravings are the physiological basis for the Freudian 'wish'. Kempf considers as obscure such psycho-analytical mechanisms as the conversion of a wish into physical symptoms, and so he endeavours to restate the position in different terms.

For emotions and sentiments he substitutes the term 'cravings', understanding these as belonging exclusively to the autonomic system. Because this system has certain needs, these needs becoming evident as states of tension, it is necessary to have means of acquiring such stimuli as will promote a relief of this tension. So we find the cerebro-spinal nervous system evolved, for the purpose of adjusting the animal to its surroundings, in such a way as to encounter these very stimuli for which the visceral nervous system is craving. This view, that our emotions depend upon our visceral autonomic, naturally entails a whole-hearted acceptance of the James-Lange theory that our perception of visceral changes *is* the emotion. Thought, on the other hand, Kempf regards as a synthesis of (*a*) the sensory stream from the autonomic with (*b*) the sensory stream from the projicient

(peripheral) nervous system, this stream being partly kinæsthetic and partly exteroceptive.

The 'wishes' arising from within the autonomic apparatus have to be satisfied—in other words, the tension has to be relieved—and the general physiology of the wish has been expressed by Kempf as follows: "The different segments of the autonomic apparatus are stimulated to assume different types of postural tensions and activities, which give rise to an affective stream which, in turn, co-ordinates the projicient apparatus and compels it to act so as to expose the receptors of the organism so that they will acquire certain types of stimuli and avoid others. The stimuli which must be acquired in order to avoid prolonged unrest and distress—which may become decidedly malnutritional in their influence—must have the capacity to counter-stimulate the autonomic segments so that they will assume a state of comfortable tonus." This is what occurs in hunger, fear, hate, love, shame, jealousy, sorrow, etc. The autonomic may not only initiate changes in position, but may also control the receptors in such a way as to raise or lower their threshold for certain stimuli at the exclusion of others, so as to regulate the influx of sensations of certain kinds.

It is the integration of the various segments that gives rise to consciousness. "The phenomenon of consciousness is the result of all the segments reacting together more or less vigorously *as a Unity*, to the sensational activity of one or several of its parts." A marked proportion of our conscious impressions is derived from proprioceptive afferent impulses, the incoming sensory stream having arisen in our muscles. Indeed, we think with our muscles, and if we cannot reproduce the movements of an experience (even though these movements be only represented as increases of tone in the muscles concerned) we cannot recall that experience. This reminds us of Watson's explanation of thought as based on intrinsic laryngeal changes in the stream of innervation to the speech muscles.

The various affective cravings of the autonomic system become conditioned early in life, by certain responses becoming attached to what were at first indifferent stimuli but have since become effectual through association with a specific stimulus. Similarly, a second indifferent stimulus may become effective through further conditioning, and so on. This early conditioning may have an important bearing upon the appearance, in adult

life, of pathological states. For instance, the conditioning of certain erogenous zones in childhood may cause a persistence of organ pleasure in certain parts of the body, providing later a starting-point for the development of sexual perversions.

The parents' autonomic attitude is an important influence in the child's conditioning, one that cannot be over-estimated, and one that is hardly ever realized to anything like its full extent by the parents themselves. Kempf states that when a child becomes neurotic, or moody, retarded, anxious, etc., it indicates one of two things: a sex-trauma, or a conflict between the parents, either of these conditioning the child to new responses. Because conditioning is such a complex process, it may easily lead to the existence, side by side, of opposite attitudes, as when a person may be both loved and hated at the same time—the ambivalency of Bleuler. Adler's point of view is also made use of by Kempf in relation to the psychical compensations resulting from organ inferiorities, though by ' psychical ' he means, in the first instance, appertaining to the autonomic and only secondarily involving the cortical structures. He recognizes three reactions against these ' inferiorities ', which are, (1) avoiding competition, (2) eliminating the inferiority, and (3) over-compensating.

As might be expected, he identifies the mental factor in bodily disease with the state of the autonomic apparatus; for disease—and recovery from disease—depend in no small measure upon the circulation in the diseased area, and this in turn is largely a reflection of the states of tension found in different autonomic segments. The needs or tensions of the autonomic cease only in proportion as they are neutralized; if they persist for prolonged periods they tend to affect the organism in the direction of malnutrition and impotence. And if reality persistently fails to provide those stimuli that lead to comfortable postural readjustments, then as a result of previous conditioning a host of symptoms will arise as substitutes for the desired stimuli; for example, images, delusions, hallucinations, fetishes, rituals and other symbols.

An important factor stressed by Kempf, as it is by Adler, is the fear of failure; in order to overcome this fear, numerous compensations may appear. The most important compensatory function to be developed as the result of training is that of needing and seeking social approbation; Kempf here leans heavily on the schools represented by Adler and, in this country, by Trotter.

The opposition between what is realized as social and what remains anti-social is the basis for the distinction that comes to be drawn between the 'me' and the 'mine'. The 'ego', according to Kempf, consists of the integration of those compensatory strivings of the autonomic apparatus that become conditioned to attain social esteem. We are here again reminded of Adler and of his description of how the patient's 'guiding fiction' is regarded as part of his 'real' or higher self, whereas the lower aspects of his personality—the anti-social ones—are repudiated.

When the anti-social cravings of the autonomic become too insistent, the personality (the ego) may deal with them in one of the following ways:

(*a*) It may accept them, and allow a free-seeking of stimuli that will afford relief; hence, anti-social conduct will be the result.

(*b*) It may suppress the segment—i.e. obtain possession of the final common pathway—so as to prevent this seeking of stimuli, while still allowing recognition of the need. (Rivers' repression.)

(*c*) It may repress the segment so that even its needs become unrealized and 'unknown'. (Freud's repression.)

(*d*) It may dissociate the segment, which now leads a life of its own, and consequently need-fulfilling images may make their appearance, such as dreams or hallucinations.

When an affective craving is suppressed or repressed, it leads to postural tensions that, Kempf claims, can be recognized as indicative of the particular segments that are hypertense. Thus we have the specific postures and tensions of repressed autoerotism, homosexual cravings, normal love desire, etc.

When an affective craving seeks an event, the likelihood of failure leads to fear reactions. These in turn, taking place in the autonomic, arouse a compensatory speeding up of function and increased power. It is this increase of energy to which Kempf would apply the name of 'will'.

If the affect to be repressed cannot be efficiently controlled by the socialized wishes, then the ego begins to regard the results of the affect as the work of outside agencies, and the basis for 'projection' is established. Another mode of defence against the hypertense segment is to eliminate it *anatomically* as well as functionally, for instance by castration, or such substitutes for castration as the removal of the eye, etc.

The aims of the integrated ego, when expressed in psycho-

logical terms, can be grouped under three headings, namely, the pursuit of virility, of goodness, and of happiness. Virility is the measure of the capacity of the autonomic apparatus to compensate, when environmental resistance tends to prevent the fulfilment of needs, so as to overcome these resistances and so modify the environment that it will gratify (neutralize) the autonomic cravings.

Goodness is the state of feeling aroused when conduct gratifies the ego-centric as well as the altruistic wishes. Happiness is felt as the segment, becoming gratified, allows postural readjustments to occur. From the elaboration of these views on autonomic personality, Kempf enunciates certain fundamental principles important for psychotherapy. For correct biological adaptation to be possible, the use of all organs and functions must continue, and therefore social opportunity for the applying of such functions must exist, or else be created. Fear prevents the use of these functions; and unsatisfied cravings produce uncomfortable tensions that may, in their turn, originate a psychosis in order to give relief. This psychosis may not only be an expression of present trends, but may also—through a process of regression—express earlier, infantile tendencies. Regression is here used much in the Jungian sense.

From this brief sketch of Kempf's views, we are now in a position to understand his classification of mental disorders, all of which he calls 'neuroses'. He divides them into acute, periodic, and chronic, according to their clinical course. They may also be described as benign or pernicious, the former term meaning that insight is fairly well preserved, the latter being used to designate those disorders in which the cause of the breakdown is not recognized as personal and is consequently attributed to outside influences. Ætiologically, five main classes can be described.

A. *The Suppression Neuroses.* In these there is clear to vague consciousness of the nature and effect of the ungratifiable affective cravings. The symptoms are mainly physical and include weakness, debility, amenorrhœa, dyspnœa, tachycardia, headaches, dizziness, with insomnia, lack of concentration, mental lassitude, and so on. In this group would be found what we term neurasthenias, anxiety neuroses, war neuroses and some hysterias.

B. *The Repression Neuroses.* Here, there is vague conscious-

ness to total unconsciousness of the nature and influence of the repressed cravings. The symptoms will be as in group A, but more severe, and may include convulsions, amnesias, anæsthesias, postures, and on the mental side, phobias, obsessions, compulsions, rituals and fetishes. These neuroses comprise our psychoneuroses, epileptoid tendencies, incipient cases of dementia præcox.

C. *The Compensation Neuroses.* There is a persistent striving to develop potent functions and win social esteem, initiated by fear of impotence or loss of control of the asocial cravings. In addition to the symptoms already enumerated we find vigorous compulsions to strive for specific environmental conditions, including eccentricities, and such special varieties of strivings as religious, philosophical, artistic and mechanical. The types of cases comprise manic-depressives (with mania as the major phase), paranoid types and psychopathic personalities.

D. *The Regression Neuroses.* Here, compensation fails, and resort is had to a regression to a more comfortable, irresponsible level allowing of wish-fulfilling fancies, postures and indulgences. In these cases, attitudes and postures are frequent, there is an evasion of personal responsibility, general apathy and inefficiency, with no tendency to regain social esteem. Depression is often marked and there is indifference to cleanliness, order, system, etc. These cases would be depressive types, some epileptoids, involutional melancholias, shut-in personalities, and allied varieties of dementia præcox.

E. *The Dissociation Neuroses.* These are due to the uncontrollable cravings dominating the personality despite the efforts of the ego. The mental symptoms are more extreme than in the other groups, and include delusions, hallucinations, confusion and delirium, stupor, anxiety and panic, obsessions, erotic cravings and fancies of a pre-adolescent nature. These cases would be the deliria of toxæmic fevers, hallucinated epilepsy and the hallucinated types of hysteria, of manic-depressives, of dementia præcox, the hebephrenics, catatonic and mixed cases.

The main psychological points to be ascertained in any given case will therefore be: the attitude of the ego towards the conflict, the nature of the affective repression, its degree, its type, the presence or absence of simulations, eliminations or compensations, the degree of insight and the symptoms of autonomic reactions (endocrinological and others). When it comes to therapy,

Kempf employs either suggestion or the psycho-analytic method, or both. The transference phenomena are stressed by him as essential, but he seems to be inclined—for institutional cases, at any rate—to prolong them as far as possible, instead of redissolving them by further analysis, as the Freudians do. He therefore agrees in this with Alexander and Sullivan, probably owing to the large proportion of schizophrenics found in mental institutions. This implies an absence of depth in analysis that finds support from the psycho-analytical school in Federn's advice not to apply deep analysis to psychotics. A similar advocation of a father transference, to be subsequently used for persuasive ends, has recently come from McLoughlin in connection with group methods in psychological treatment.

In connection with autonomic reactions, it would be interesting if we could correlate some of Kempf's views with vagotonia and sympatheticotonia. The vagotonics, of Eppinger and Hess, in which the parasympathetic control predominates over the sympathetic one, show an increased excitability of the parasympathetic; they are of a lymphatic type, tall, thin, angular, with a poor circulation and greasy skins, and are mentally dull and slow. The sympatheticotonics, on the other hand, have dry skins, prominent eyes, dilated pupils, and are possessed of great energy, both mental and physical.

CHAPTER IX

ENDOCRINE THEORIES OF BERMAN AND OTHERS

BERMAN believes, like Kempf, that all emotional factors imply various states of tension in the vegetative nervous system, but he looks rather further for his explanations, and ascribes considerable importance to the ductless glands in causing or modifying these tensions. Not only do our physical make-up, our physiological reactions and our bodily functions depend on these glands; but also our mental traits, our characterological peculiarities and therefore our psychic disorders, are to be traced to the mode of functioning of our endocrine organs. In this method of approach we find a sort of modernized version of the old humeral doctrine which was made to account for the four classical temperaments: sanguine, melancholic, choleric, and lymphatic.

Berman's discussion of the whole problem is too diffuse to be conveniently included here; moreover, many of the physical considerations will be found in all physiological textbooks. A brief summary may, however, be attempted, notwithstanding the fact that his views are highly conjectural and partly disagreed with by even enthusiastic writers on this approach (e.g. Hoskins). After reviewing the information obtained concerning these glands he proceeds to outline their influence on personality. In most individuals there is one or other of the ductless glands that over- or under-functions and consequently dominates the adaptive processes of its possessor; it is possible to discern pituitary, or adrenal, or thymic, and other types, of personalities. A short review of these might perhaps be helpful.

The *adrenals* are the glands on which depend the capacity for emergency behaviour; they allow of sudden energetic reactions, such as might be required in the face of danger, shock, or unexpected mental stress. In the person whose adrenals function more than the other glands, we find a tendency for pigmentation of the skin, thick, coarse dry hair, well-developed canine teeth, and so on. There is good capacity for quick reaction, especially to danger; and if the pituitary hypersecretes too, the individual

is remarkable for his vigour, energy and persistence. He is reliant and determined, and women of this type tend to be rather more masculine than the average.

In those whose adrenals determine the characterological picture owing to their hypofunction, we find symptoms that can best—as a class—be described as neurasthenic. There is a low temperature and blood pressure, many evidences of fatigue with irritability and hypochondriacal manifestations. Superadded may be psychic attempts at compensation. Because these glands are so necessary for the confronting of emergency situations, the adrenal-deficients are those who provide the majority of cases of shell-shock in war-time.

In the case of *pituitary* individuals, the situation is not so simple owing to the gland having two parts, anterior and posterior, each with its own specific influence. As a general rule, if the anterior pituitary predominates, the result is an increase of masculinity, growth and brain power; and if the posterior pituitary takes the lead, we get more femininity and emotionalism. The post-pituitary gland seems to influence particularly the maternal and sexual instincts (and their sublimation) and the social and creative instincts. It affects the tender emotions, sympathy and suggestibility. The ante-pituitary is the gland of intellectuality, of control, foresight and judgment. When the whole pituitary is deficient, the genital organs are small, the stature dwarfed, fatigue is marked, there is dullness, apathy, no initiative, and a general appearance of degeneracy.

More usually, however, the hyper- or hypo-secretion is limited to one part only of the total gland. Suppose, for instance, the posterior pituitary works excessively: this accounts for the petite woman, of slight build, with creamy complexion and doll-like face; large, perhaps staring eyes. She is unstable, emotional, often craving excitement, and is variable in moods and opinions. If, in later life (say at the menopause, when all these glands are apt to be upset), an exhaustion of this post-pituitary now supervenes, there will be a change of physique into the ' fat, fair and forty ' type, with dulling of perception and intuition, and a condition approximating more, in mental make-up, to that of thyroid deficiency.

An excessive post-pituitary function in men leads to their being short, round and tubby; they tend to show a periodicity of function and are moody, almost ' cyclic '. They are more

sentimental and love poetry and music. Many henpecked lovers and husbands are recruited from their ranks.

When, on the other hand, the anterior gland is the leading one, we have well-marked male characteristics. The man is well developed, with large muscles, has prominent bony points, and has his full share of intelligence and self-mastery; he is cold and apt to be cruel and ruthless. In a woman, this leads to more self-reliance, staying power and organizing capabilities than are found in her more poorly endowed sisters.

Coming now to the *thyroid* personalities. Just as sexuality, passion and jealousy may be related to the gonads; sympathy, curiosity and 'femininity' to the post-pituitary; intellect and control to the ante-pituitary; fear and anger to the adrenals; so would Berman postulate a gland for the regulation of self-display and self-effacement, with their derivatives shame, pride, exhibitionism, and their counterparts, depression, self-accusation, etc. And the organ most concerned with these characters is the thyroid. Further, the thyroid would appear to be the gland of continued effort, in contrast to the adrenals, the glands of emergency effort.

In the sub-thyroid type—not so marked as to evince actual cretinism—we find the secondary sexual characteristics poorly developed; they partly mimic the opposite sex in appearance, the stature is small, there is obesity in middle age, the complexion is sallow, the hair dry, the teeth poor, and the peripheral circulation is bad. Mentally, the chief points are slowness, dullness and apathy, inertia and inconsistency. If the pituitary is over-compensating satisfactorily, the intellect may remain fairly good, but energy is deficient and fatigue soon supervenes. If it is the adrenals that over-compensate, we get a less intellectual mind; a more primitive, more animal, more uncontrolled personality (pituitary deficiency).

The hyper-thyroid individuals are the people who always seem full of vitality. They are thin, active, have thick hair, and are sexually very susceptible. They are possessed of rapid perception and volition, and are apt to be impulsive. But if the hyper-thyroidism is associated with thymus excess too, then we have an emotionally unstable type that is liable to brain-storms (psycholepsy).

The thyroid, more than any other gland, seems to be liable to periodic swings from one side of the normal to the other, and

so may be regarded as in part responsible for the occurrence of 'cyclic' personalities and—in more extreme instances—cases of manic-depressive psychosis.

As regards the *thymus* gland, excess of secretion is responsible for a characteristic kind of child, the 'angel' type, with long silky hair, and transparent skin. Later on, the pituitary will compensate to some extent. Sex difficulties are prominent, and even physically the normal sex characteristics are ill-developed. The males have slender waists, long chests and smooth skins; the females are thin, with small breasts, arched thighs, and often suffer from scanty menstruation. The heart is small, the blood-vessels are fragile, and in consequence these individuals are poor at meeting any stress, shock, or muscular strain. They seem to have special proclivities towards homosexuality (due to an arrest of developmental differentiation), more particularly if the pituitary fails to compensate, and they evince a moral irresponsibility often coupled with suicidal tendencies. When there is good compensation from the thyroid, they are then more likely to become eccentric geniuses.

The *gonads* of course regulate the sexual characteristics. In cases of deficiency, not only are these less marked, but there is a tendency for the appearance of the traits appertaining to the opposite sex, with homosexuality. Frequently there is associated the kind of personality that is shut in, ego-centric, even definitely 'introverted'. A good deal of work is being done in connection with sexual glandular functions which may ultimately prove or disprove some of these assumptions; apart from the material already accumulated by Mott and his co-workers, there is Saethre's work on female sex hormones, including the estimation of them in the urine (e.g. folliculin in psychiatric cases). Cocchi has investigated the effect on neurasthenia of sex extracts from lower vertebrates. Further research, on the lines indicated by Draper in his work on constitution, might yield important results. Zondec and Bier have accumulated evidence showing some correlation between the endocrine organs and manic-depressive insanity, with special reference to the rôle of bromine in the pituitary.

Recently we have numerous contributions such as that of Akalaitis on myxœdema and of C. P. Richter and others on mood cycles in parathyroid deficiency. D. Richter has studied the effect of adrenalin in anxiety states, while an important

study of the adrenals in intersexuality has come from Broster and others. Wintersteiner also writes on the adrenals, while pituitary function has been studied by Reiss, who concludes that anorexia nervosa is essentially a cerebral pituitary cachexia. Pituitary deficiency in schizophrenia has been discussed by Sanchez-Calvo and also by Cahane, this last having also written on the pineal. Tietz and Birnbaum have noted a high level of adreno-cortical substance in the blood of patients recovering after shock therapy; the level was low in non-recovering cases.

The sex hormones have been the subject of researches by Reiss; Neustadt and Myerson write on sex hormones in various disorders and Fischer discusses the effects of glandular extracts in schizophrenia. Sears and others find a low blood œstrin in schizophrenia. Ovarian activity and mental processes are dealt with by Benedek, and the question of endocrines in involutional melancholia has been investigated by Werner and others. In this connection, the studies of Reiss and Hemphill have led to the recognition of four types of involutional melancholia corresponding to the particular endocrine disturbances ascertained.

By way of illustrating the application of Berman's views, we might outline a few interpretations of well-known people, as given by him. For instance, Florence Nightingale would appear to have been a pituitary personality, with hyper-secretion of the anterior part of the gland. Her endurance, organization, foresight and will-power can all be ascribed to her ante-pituitary hyper-function.

Napoleon could be regarded as a pituitary type, with a well-developed ante-pituitary and poor post-pituitary. This would explain, on the one hand, his organizing and critical faculties, his statesmanship and mastery. On the other, owing to a badly functioning post-pituitary, we have his cruelty, relentlessness and absence of all tender feeling. His general energy showed his thyroid to be good, and his pugnacity marked his adrenals as efficient. At the end of his life, the first gland to fail was the ante-pituitary, and he became simple, maudlin, and lacking in judgment, a very different man from the one before whom all Europe had trembled a few years earlier. At death, there seemed to have been, according to post-mortem records, a definite ' feminization ' of his organs. At all times his sex-impulses had been erratic, sudden and more exclusively physical than in most normal individuals.

Nietzsche was another pituitary personality. But here there was a hyper-function of both parts of the gland with a slight predominance in favour of the post-pituitary. Hence he was clever, intellectual and independent, but distinctly unbalanced and erratic (post-pituitary); very original, but the prey to obsessions and phobias. The large gland, compressed in a small sella turcica, was the cause of many headaches and attacks of migraine. His thyroid was above the average too, but his adrenals were deficient, leaving him little reserve or emergency power.

Darwin, like Nietzsche, had an over-active pituitary gland, involving both parts, but this time with a slight preponderance of the ante-pituitary function. He was therefore clever and original, but in a less erratic and eccentric manner. His deficient adrenals caused him to suffer from great fatigability and nervous depression. It was only when a readjustment of endocrine balance occurred at the time the gonads began to decline that his general health and vigour improved.

Julius Cæsar was also a hyper-pituitary type, but one in which the two parts of the gland were well balanced. His epilepsy and headaches were due to the pituitary enlargement. He was distinctly precocious, and just as he owed his statesmanship, fondness of glory and of conquest to his ante-pituitary, so may his post-pituitary be regarded as responsible for his love of poetry and generally effeminate peculiarities.

Oscar Wilde, on the other hand, was of a preponderantly thymus type, as evidenced by his physique. He was tall, corpulent, with a smooth unbearded face, plump hands, and a voice that in excitement showed the high-pitched notes peculiar to a still infantile larynx. His homosexuality relates also to this thymus excess. His pituitary compensated fairly well (instance his large head and his liability to headaches). Doubtless his trend towards his own sex was reinforced by his post-pituitary efficiency.

Latterly, Berman has attempted to apply his glandular interpretations to the study of criminals, but still he has not yet succeeded in bringing forth much direct evidence in favour of his somewhat facile and all too sweeping generalizations. The whole subject is much too complex for it to be possible to do any more than piece together slowly, fragment by fragment, the material that will one day complete the whole picture. It might

therefore be said that his outlook is much over-enthusiastic and insecure, and consequently little accepted in other quarters. It does not follow, however, that it may not yet represent a starting-point for future investigations, the results of which might provide some of the much-needed links between the psychological method and the physiological means of investigation. Enke has contributed to the question of endocrines in relation to constitutional types, while endocrine factors in the personality of criminals have been further studied by Puca. Many other investigators are reporting on endocrine functions and their psychiatric and psychological correlates, and Hoskins—who has done much to advance our knowledge of these subjects—has gone so far as to utter some interesting suggestions concerning the relationship between endocrines and libido drive, ego and super-ego functions. The endocrine approach might also be equated with other, more neurological viewpoints. For instance, it has already been pointed out by some how the characteristics of vagotonia might be due to the thymus and pituitary glands, while the adrenals and thyroid would account for sympatheticotonia.

Without staying to discuss them, we cannot help being reminded here of the more general studies of well-known men and women of past ages. A very good recent collection of personality pictures are the descriptions and interpretations of MacLaurin. He uses the medical approach, and though he does not emphasize the endocrine aspect as much as Berman does, he introduces other considerations based on the mental results of general systemic diseases. MacLaurin discusses the Tudors, several foreign rulers and personalities, such as Joan of Arc, Don John of Austria, Luther, and numerous others, and his point of view is always well balanced and suggestive.

More recently still, we have the discussion of the ' sthenic ' personality by Fowler, whose point of view could to some extent be translated into Berman's terminology, and who gives interesting analyses of Curzon, Haldane, Marshall Hall and others. Norman, in his textbook, also gives interpretations of personality, though these are more generally psychiatric than endocrinological.

CHAPTER X

BIOCHEMICAL FINDINGS

THE functions of the ductless glands and of the nervous system controlling them may be grouped under two headings: (1) Control of growth and metabolism, (2) Emotion and response. We have already glanced at the latter and to some extent touched upon the question of growth, but we have so far had little to say concerning metabolism. Nor can we hope to do so to any extent, owing to the technical intricacies of the subject and the lack of any direct contact between biochemistry and psychopathology. Yet, the chemical approach can hardly be left out altogether, if only for one reason.

If we admit the importance of glandular activity and of autonomic tensions in the production of such emotional disturbances as occur in insanity, then we cannot afford to neglect any method that might possibly help us to arrive at a diagnosis concerning the nature of the emotional disturbance and the particular faulty organs underlying it. And it is precisely at this point that biochemistry and physiology step in, as a means of recognizing that certain disorders (say of metabolism) are present, and thus indicating the direction in which further investigations might be useful. The chemistry of the body being related to glandular and other functions, and these in their turn having an important influence in determining psychopathological reactions, we may some day find that chemistry and psychology are not as far apart as we might be inclined to suppose.

The great difficulty of course resides in the fact that some physical changes may be the *result* of a psychosis, while others may have a *causative* rôle. Physical agents may act by (1) creating a psychosis, or (2) precipitating a psychosis in a psychopathically predisposed personality, or (3) improving, aggravating, or altering the form of an already existing psychosis. They may act as predisposing as well as precipitating causes. For example, Pascal and Davesne support Ravaut and Damaye in stressing syphilis as a predisposing factor, producing the right soil for mental disease. On the other hand, even such fashionable precipitating causes as toxæmias may derive from mental factors,

as when a psychic shock leads to the liberation of cytotoxins (Hesnard); the resemblances between the symptoms of psychic shock and those of recognizable intoxications have been well brought out by Séglas.

As a mere peep into this complex question, let us take, say, basal metabolism. This is a term denoting the energy expended by an individual when completely at rest, mentally as well as physically; that is, when he is, so to speak, only just alive. It has been found that the basal metabolism varies little in normal subjects, not more than about 10 per cent., off an average standard. In mental disorders, however, it has been found by Walker, Hoskins and others that it is often much disturbed. Even in hypnosis, it may increase by 25 per cent. In melancholia it is fairly normal, in Basedow's disease it is high, and in myxœdema it is definitely low; in this last instance, it can be improved by the administration of thyroid. In catatonia, the basal metabolic rate is lowered, showing that oxidation is deficient; very often this is combined with symptoms suggestive of vagotonia, and even the administration of thyroid gland does not, in these cases, affect the basal metabolism to any extent.

As regards the chemistry of special classes of substances in the body, a great deal of work has recently been done on carbohydrate metabolism, notably by Raphael, Parsons, Drury, Farran-Ridge, Golla, Mann, McCowan and Quastel. It is common experience that glycosuria is often found in mental disorders and emotional states. It occurs in catatonia but not in hebephrenia; and in many cases of dementia præcox, though it may be absent as far as a casual urine examination is concerned, it does occur after the ingestion of sugar, a true alimentary glycosuria. This glycosuria is evidently dependent upon three factors, namely, the rate of absorption of sugar, the glycolytic and glycogenic functions, and the renal threshold. It is because of this last that examination of the urine only cannot lead to any complete understanding of disorders of carbohydrate metabolism, unless the blood-sugar curves be taken too.

After feeding with sugar, its percentage in the blood rises, and in about two hours—in the normal subject—it falls back to normal. The normal amount of sugar in the blood being about 0·1 per cent., the blood-sugar curves produced by feeding on sugar should not, in health, rise above (show a concentration greater than) 0·18 per cent. But in insanity the curves are very

often abnormal in type, being higher and tending to take longer in subsiding to the normal. Particularly have these changes been marked when associated with melancholia and confusional states. In these cases the renal threshold (the degree of sugar concentration necessary in the blood before sugar makes its appearance in the urine) has been found raised to as much as 0·25 per cent. Derrien and Piéron have found blood-sugar most increased in officers suffering from mental disorder consequent upon an emotional shock that was effectively concealed at the time.

The various factors supposed to be responsible for these carbohydrate disturbances are again to be found in connection with physiological anomalies of the ductless glands. For instance, the thyroid, when over-active, causes a high blood-sugar curve; and when under-active, an increased sugar tolerance. The anterior lobe of the pituitary has no effect, but excessive post-pituitary secretion causes a rise of blood-sugar. Pancreatic deficiency also leads to hyperglycæmia, and to interference with glycogenesis and carbohydrate utilization. (Fat metabolism is possibly involved here as well.) Over-activity of the adrenals produces increased blood-sugar curves, but only if the thyroid is healthy. According to some writers, hyperglycæmia may be related to the cerebral functions, and may be regarded as the result of a cortically originating irritation of the sympathetic system.

So it is possible that we may be able to equate certain sugar disorders with those mental peculiarities at least that are supposed to be due to glandular abnormalities, or may be associated with autonomic unbalance. At any rate, it has already been suggested that sugar-curves may be a useful guide in establishing the prognosis of certain mental derangements. While Mann and Golla have advanced the theory that all these disorders of carbohydrate metabolism are due, in the long run, to a disturbance of the acid-base equilibrium of the body, with a depression of the respiratory and other medullary centres, comparable to what happens during the physiological condition known as sleep, Marshall, on the other hand, after investigating glucose tolerance in manic-depressive disorders, concludes that carbohydrate metabolism is not related to changes in acid base equilibrium. Peters has investigated the effect of assisted respiration in dementia præcox, and Starr the H-ion concentration in two

types of stammerers. Barach and Kogan have taken up the question of oxygen tension in the atmosphere and its mental effects, oxygen metabolism being also studied by Hoskins, while the effect of oxygen deficiency and carbon dioxide excess on word association has been investigated by Gellhorn and Kiames.

Cholesterol in blood has also been a subject for investigation which has yielded interesting results, and work in this direction is increasing. The suggestion has been put forward that cholesterol blood content is regulated through the sympathetic system and the endocrine glands, and that hypercholesterinæmia may be an accompaniment of vagotonia, whilst hypocholesterinæmia goes with sympatheticotonia. Duncan has found the cholesterol to be high in manic-depressive insanity and involutional melancholia, though higher still during a remission. It was high in alcoholic and organic psychoses, but low in the agitated and confused type of dementia præcox. The variability of cholesterol in psychotics has also been noted by Schübe. The cholesterinæmia of dementia præcox has been confirmed by Lemmi, other writers on the subject being Looney, Childs, O'Connell and Stern.

More especially in schizophrenia, further researches have also been conducted into the question of the catalytic iron in the brain (Freeman), of creatinin increase in catatonia (Looney, Weinberg and Stratton) and muscle tension in emotional reactions, of the hæmato-encephalitic barrier (Malamud and Rothschild) and of the effect of bulbocapnin in the experimental production of catatonia (de Jong), while F. Meyer has written on the reticulo-endothelial system. Pavlov regards schizophrenia as an inhibitory state of the cortex preserving nerve-cells from exhaustion, and allies it to hypnosis. Excitatory and inhibitory cells in the cortex and their production of erethizó-phrenia and koly-phrenia have been discussed by Hunt, important aspects of cerebral localization have been summarized by Schilder, and constitution studied by Lewis.

Gjessing's work on schizophrenia has resulted in his finding (in periodic catatonia) phasic variations in total nitrogen balance and in autonomic functions, and he ascribes the disorder to an accumulation of protein and the production of a toxic substance that causes (*a*) confusion and excitement, or (*b*) a form of sympatheticotonia. Hardwick and Stokes confirm this, but after further experiments with thyroid therapy and dieting they ask

whether there may not be an endocrine change more fundamental than the nitrogen swing. Jahn has also found a retention of nitrogen, before and during the acute psychotic phase, which may lead to toxic effects on the liver. Quastel, also Berkenau, have investigated the question of faulty detoxication and liver function in schizophrenia. Nitrogen has also been studied by Leschtschinsky, while numerous writers such as F. A. Alexander, Himwich, Lipetz and Lengyel, have investigated the effects of nitrogen inhalation treatment in schizophrenia. Geller recognizes three types of schizophrenia: the autistic asthenic with alkalosis; the expansive hyperthymic which tends to acidity with a high blood-sugar and over-response to adrenalin; and the impulsive hebephrenic with retention periods of slow accumulation of water and chlorides followed by rapid elimination during periods of agitation.

Other investigations might briefly be enumerated, dealing with blood bromine and iodine in mental disease, more especially by Zondec, Kulkov, Kakusina, Hennelly, Yates and Guillaumin, but there seems to be a good deal of disagreement with regard to results. The blood-fat iodine number has been studied by Brice and he finds it high (above a differential point of 122) in mania but low in schizophrenia, his results giving an agreement with clinical diagnosis in 80 per cent. of cases. Ether-soluble phosphatides have been found low in schizophrenia by Jokirartio, other investigators of phosphorus being Powers and Nægus. Acetyl cholin has been used by Misch to break the vicious circle of neurotic anxiety; he believes that by removing the hypertonicity of the sympathetic by acetyl cholin, a better chance is given to the therapeutic effect of psychotherapy. Acetyl cholin has been reported on also by James, Tómasson and numerous others. Prolonged narcosis, as advocated by Muller and Kläsi, may lead to interesting observations. Water balance in epilepsy has also been discussed. The biochemistry of manic-depressive cases has been specially studied by McFarland and Goldstein; lipoid metabolism studies have shown the amino-lipid fraction to be raised in schizophrenia (D. Richter and Lee), but here again it is suggested that much of this work only reveals the end result of endocrine activity, in the case of lipoid metabolism the suprarenals and oxidation.

As an example of another kind of approach that again may link with the glandular one, let us refer to the hæmoclastic crisis.

In the normal subject, the ingestion of proteins (milk is usually employed for experimental purposes) leads to a leucocytosis and a rise of blood pressure. In certain cases, however, Robertson, Petrie and others have found what is called the hæmoclastic crisis. That is, there occurs a *fall* of blood pressure, a reduction in the refractive index of the blood, a leucopænia, and an altered differential leucocyte count. This crisis is to be observed particularly in schizophrenia and in anxiety states. Thus, in dementia præcox, 94 per cent. gave the crisis, and 6 per cent. were normal. In melancholics, 90 per cent. gave the crisis, 6 per cent. were normal, and 4 per cent. were indeterminate. In mania, 60 per cent. of the cases were hæmoclastics. In nearly 250 early psychotic cases only one normal reaction occurred, 106 were doubtful, and 135 were hæmoclastic. The doubtful cases included mostly instances where a leucocytosis occurred first, soon followed by a leucopænia. In connection with prognosis, it was noticed that a higher percentage of recoveries occurred amongst those who gave a normal reaction than in those evincing a hæmoclastic crisis.

Coming to the question of glandular function. Adrenalin apparently reverses the crisis when present, and the leucocytes are increased instead of diminished. Atropine changes a hæmoclastic crisis into a normal reaction, but has no effect when the normal reaction is present from the onset. Thyroid, on the other hand, not only converts a hæmoclastic reaction into a normal one, but apparently reverses a normal one into a hæmoclastic crisis. In post-encephalitis most of the cases evinced a hæmoclastic crisis, the crisis being prevented by the previous exhibition of adrenalin; hyoscine, however, only prevents it in about two-thirds of the cases. Some authors have shown how emotional shocks and anxiety attacks can determine a hæmoclastic crisis (Joltrain, Tinel). It has been considered as an anaphylactic phenomenon, and the 'constitutional' psychoses have been regarded, by Pascal and Davesne, as anaphylactic shocks. Transference and abreaction (two concepts that are 'psychological' enough) have been compared with desensitization. The view has been also put forward that the hæmoclastic crisis is due to a loss of balance between the vagus and the sympathetic tone, but the relationship, if any, between its appearance and particular emotional and character disorders has not yet been worked out. Recently, however, some doubt has been cast upon the validity

of the above results, by Batt, Power and Yates, these writers alleging that most of the differences observed in the incidence of these crises are so small that, in view of the particular methods employed, they could be regarded as falling within the limits of experimental error, thus being mathematically unreliable.

The homeostatic index has been discussed by Hoskins, following Cannon, this index being a measure of the capacity for resisting the alteration due to the introduction of distorting factors; this is, of course, the basis of most 'vital' function tests.

Vitamin C provides another subject of research by such as Bersot, Minski, and Thorpe. Other writers include Wortis, Jolliffe, O'Shea, Mereguiski and Tcherkassova. Tomasino reports cures in psychopathological states after the exhibition of nicotinic acid, while similar good results have been adduced by Sydenstricker and Oakley. Thiamin deficiency in relation to neurasthenia is discussed by Williams and others, while Alexander deals with its bearing on Wernicke's encephalopathy.

Lastly, Burridge's work is rather interesting in that it attempts to express certain mental phenomena in physiological terms. He starts with the assumption that experimental results obtained with muscle-nerve preparations and frogs' hearts are applicable to the physiology of the nerve cells that mediate 'mental' events. For example, the contraction of a muscle depends on an excitation in the sarcoplasm, which in turn leads to an activity of the contractile element proper. But these excitation processes are never of one kind only; there is a duality of excitation due to there being two factors entering into its production. These two factors are (1) ionic concentration and the action of electrolytes, and (2) the state and degree of colloidal aggregation. The blood is the agent par excellence that affects factor 1, but factor 2 depends upon hormone activity. Now, given a response of a certain size and intensity, it can be caused by an excitation composed of varying amounts of factor 1 and factor 2, but always in such a way that factor 1 + factor 2 = a constant. The nature and kind of the response will vary according as to whether factor 1 predominates over factor 2, or factor 2 is in excess of factor 1. He next proceeds to elaborate his view that these two factors in some sense correspond to the distinguishing characteristics observed when different 'levels' of the nervous system operate, the higher levels being regarded in a light reminiscent of Head

and Rivers' epicritic elements, whilst the lower ones are responsible for what is protopathic. In the final instance, Dibblee's position is reached in that ' higher ' comes to stand for intelligence and judgment, whereas ' lower ' means instinct and affect.

In order to decide which of our two factors lends to a response the character of ' intelligent ' as compared to ' instinctive ' he invokes the effects of alcohol. When alcohol is given it is found to diminish the part played by electrolytes in excitation processes, while increasing that of colloids. As alcohol is known to favour the ' lower ' activities of mind and nervous system, whilst inhibiting the ' higher ' ones, Burridge concludes that in general terms factor 1 corresponds to higher responses and factor 2 to lower ones. Thus, for instance, emotional outbursts depend on affective tone, and this in turn would rest upon the colloidal factor. Hence, high hormone activity would necessarily entail great affectivity; but if the ductless glands worked poorly, then affectivity would be low. A secondary result would be this: in so far as it is affectivity of ideas that makes them ' linger ' or persevere, if affectivity is poor, perseverance will be at a minimum and a ' flight of ideas ' would result. There is scope here for attempting to bring this approach in line with the endocrine one.

All ideas and mental processes, then, Burridge regards as due to excitation processes that are caused in part by ionic and in part by colloidal changes; these excitations are therefore in part instinctive and in part intelligent, and the two factors causing them bear such a relation to each other as can be expressed by the equation $H+L=T$, where T stands for the response, for instance, the production of an idea.

The ionic factor (H) is largely dependent on calcium metabolism, and it is because the process of ageing is due to calcification that youth is so emotional and unbalanced compared to the more stable judgment and character of adult life. In senility, however, H becomes so much in excess of L (the ionic factor so much outweighs the colloidal one) that everything is received placidly and little emotion is evinced for events that would prove highly disturbing to a younger person. Memory depends largely upon affectivity; that is why old people forget so easily, and are particularly amnesic for events that have occurred recently (that is those that are acting on nerve cells in which ionic susceptibility predominates) as compared to those of long ago (that acted when colloidal reactions were more marked).'

A memory trace consists, according to Burridge, of a persisting changed state of colloidal aggregation, and recall of the experience is due to subsequent interaction between these changed colloids and calcium salts. In the equation, then, L stands for colloidal aggregation or memory trace and H is calcium or the ' remembrancer ', while T is the response of the conscious organ. The factor L determines feeling tone, and H the intellectual appreciation of L. Now, as L increases in size, so does H diminish; the limit is reached when L becomes equal to, or even greater than, T. There is then no scope at all left for H, and the experience cannot be recalled to mind. This would appear to correspond to Freud's ' repressed ' memory. The process of psycho-analysis would mean, in Burridge's terminology, a process of ionizing the unconscious memory. On the other hand, L may be so small that the memory cannot be recalled, as H has too little data to work on. This would be different from repression, and would account for the loss of memories that are ' too trivial to cause an impression '.

When in mental derangement we find hyperamnesia with faulty judgment, this is presumably due to a large L and a small H. Septic processes, affecting the colloidal aggregation, cause a corresponding loss of the ionic factor, and confusion results. Interestingly reminiscent of the calcium theory of epilepsy is Burridge's formulation that fits are the result of an increase in the ionic factor beyond the usual limiting value, so that L+H = more than the physiologically possible T. Recently, Burridge has further attempted to equate H and L with Freud's reality and pleasure-pain principles.

It is worthy of note that some writers have compared the manic-depressive psychosis to the hibernation cycle in animals, believing it to be due to a phasic alteration in colloidal dispersion and electric potential, and that colloidal constitution has already been used by MacAuliffe in his endeavour to delineate types of physique that approximate somewhat to Kretschmer's and Pende's descriptions (see Chapter XIII). Of interest in this connection are Buscaino's views on the biological aspect of emotion.

CHAPTER XI

OTHER PHYSIOLOGICAL AND ANATOMICAL CONTRIBUTIONS

WE have so far given consideration to the modern work in biochemistry that may provide information of use to the psychopathologist, but there are equally vast fields of research in connection with other aspects of physiology, a few examples of which might be mentioned briefly.

First we have the rôle of infections (nasal, oral, gastric and intestinal) in the production of mental disorder, a subject that has been intensively studied by Pickworth, Ford-Robertson, Chalmers Watson, Graves and Cotton. Bruetsch suggests that a chronic brain infection of rheumatic origin may play a part in the production of schizophrenia; toxic theories in relation to indole and histamine have been reviewed by Ferraro and Kilman, while Robb and others also have studied the mental effect of histamine.

Pernicious anæmia and its attendant mental changes have come in for attention (Phillips, Atkin and Hackfield), as have liver functions in psychotics (Lundquist) and in depression (Schörre). Baruk considers biliary disorders in relation to the development of anxiety. General blood studies in schizophrenia (Jedlowski) and in mental disease at large (Looney and H. Freeman), cerebral ischæmia (Pickworth, Krapf), heat regulation in schizophrenia and essential hypertension in the psychoses (Riemer) are other topics that have come to the fore of late, as also autonomic integration (Rheingold) and psychogenic leucocytosis (Wittkower and others).

Modern forms of treatment bid fair to provide interesting observations that may have important psychological implications, especially such therapies as have come so much into prominence in schizophrenia. As a result of certain theories concerning the possible contrast between the biology of schizophrenia and that of epilepsy (a subject that has received recent consideration from Jasper), the treatment of the former by convulsion and shock methods came into vogue. Several agents have been used, from cardiazol (Meduna) and triazol, to ammonium chloride and camphorated oil in ether, to say nothing of insulin therapy (Sakel) and the electrical shock technique. That the effects produced are really shocks in the true sense of the word has been

denied by some, for example, Graves, who regards the 'shock' as merely a diphasic vascular variation, but if not a shock in the physical sense the effect may still act as a psychological one. Del Pino has made some interesting observations on thought processes during cardiazol therapy, and Silberman, who writes on the mental nature of the process of cure, describes the sequence of events as shock leading to intense fear, with a 'death experience' followed by a 're-birth' and consequent euphoric relief. The interesting point, however, is that before the stage of euphoric relief is reached it is found by some observers (the author is one of them) that there is a resistance put up by the patient that may cause him to resent attempts at resocialization and all forms of external stimulation, and leads him to beg to be allowed to 'go back to the other world', the world of phantasy from which he is being so unpleasantly awakened. Flescher suggests that during artificial fits the energy inherent to the death and destructive drives are unloaded harmlessly and that this might open up a line of treatment for certain forms of delinquency.

Other researches have dealt with pathological laughing and crying (Davison and Kelman), the study of the hypothalamus and emotion, the psychopathology of encephalitis lethargica (Persch) and of personality in Huntington's chorea (Bertha and Kolmer). A case of colour blindness cured by psychotherapy is described by Stewart.

In connection with visual function, mention might perhaps be made of eidetic imagery (Jaensch, Wertham, Miller). Many individuals, after visual stimulation, have lingering after-images, distinct from both the actual and the memory images, and these people are said to exhibit the eidetic phenomenon. Well marked in children, this is probably typical of revival in the field of lower senses; hence, three genetic levels of memory have been postulated, corresponding to: actual image—eidetic image—memory image. Two types can here be recognized. The T-type (tetanoid) is the one in which the after-image resembles most the actual visual one, and the B-type (Basedowoid) is characterized by the after-image approximating more to the true memory-image. The B-type often goes with an artistic temperament, a slightly enlarged thyroid, and an intense reaction to psychic stimuli, especially in the sympathetic system. The T-type reacts more to ordinary environmental stimuli than to inner ones. Mixed types have also been noted, such as BT, TB, TE

(epileptoid) and BH (hysterical). This might be correlated with the introverts and extraverts of Jung, and the schizoid and cycloid temperaments. It has been suggested that there may be some relationship between the B-type, calcium susceptibility, and parathyroid function. It may turn out that eidetic imagery may be connected with what Semon has termed the akoluthic phase of engraphy.

More recently, Hardcastle has reviewed some interpretations of eidetic imagery and attempts to link it with psycho-analytical theory, Jankowska writes on eidetic imagery and hallucinations, and Hummeltenberg on its relation to the total personality.

Other researches deal with the question of mescaline psychosis (Guttmann), of allergic reactions in mental diseases (Beauchemin) and of the significance of reflexes. K. Goldstein, for example, advances the view that Babinski's sign is not an altered response but is the exhibition of a new response indicative of a flight reaction coming into prominence. Parotid secretion rate in the differential diagnosis of depressions has been reported upon by Strongin and Hinsie. Penrose suggests that the auxiliary (sex determining) genes may play a part in causing mental illness. Lemere sees in schizophrenia a low energy cortex secondary to a primary diencephalic inadequacy. Skin reactions in mental cases have been studied by Chevens and Mumford, and the result reviewed from the angle of Kretschmer's types.

Mention could be made of many more subjects that have received consideration by various writers, but we might be led too far astray, and so we shall consider only one more aspect of physiological research, that of electrical reactions. The electric resistance of skin and body has been reported upon by many (e.g. Lasswell, and Hemphill recently) and has led to the use of the psycho-galvanic reflex. This reflex follows upon the use of Jung's association test for recognizing emotional disturbances, and is based upon the fact that emotions cause a reflex lowering of the resistance of the body to the passage of an electric current. The reflex can be detected by means of a galvanometer, and is found to occur in response to nocuous stimuli, whether exogenous or endogenous. Amongst the endogenous causes of the reflex are to be found all mental processes likely to give rise to emotion. The reflex is a very sensitive means of detecting emotion, as it often occurs even when the organic disturbances indicative of emotion are not accompanied by any subjective awareness of

emotion. In this connection it is interesting to note how, in hysterics, there may be a considerable show of emotion in response to certain stimuli, whilst the psychogalvanic reflex is nevertheless absent. This shows how the emotions of a hysteric are more imagined than real. At the most, his ' emotion ' is a cortical, intelligent affair and is not backed by visceral and organic reactions. It is because of his lack of organic response to stimuli that he is so susceptible to suggestion; his protection against disturbing stimuli being his organic responses, he is defenceless without them. This reflex has also been investigated in relation to Kretschmer's types by Enke, while Lockwood has written on the psychogalvanic reflex, word associations and the hyperglycæmic index when used in combination with each other.

Another means of electrical investigation that has led to very extensive research, some of which may be of interest to psychopathology, is the electro-encephalogram. This is a method to record changes of potential coming from the brain, and as long as the eyes of the subject are kept closed some ten rhythmic oscillations occur per second. This rhythm disappears in sleep and during mental concentration, and it may be altered in certain conditions such as anxiety, increased intracranial pressure and also in various forms of epilepsy. Examples of research on these lines of possible interest to us here are the application of the test in psychotics (P. A. Davis and Hoagland, also A. C. Williams), in schizophrenia (Davis, McMahon and Walter, also Rubin, who notes evidence of a localized cortical atrophy), in normal and abnormal children (Lindsley and Cutts), in relation to intelligence level (Kreezer and others) and in its general application (R. Jung). Jasper and Shagrass have found that this rhythm could be conditioned to auditory stimuli, an observation that may have interesting implications in relation to more general problems. Other aspects of the EEG include its relation to aggressiveness; thus Hill and Waterson have found it abnormal in 15 per cent. of 52 controls, in 48 per cent. of 151 psychopathic personalities and in 65 per cent. of 66 aggressive psychopaths; Silverman observed a similar abnormality in 80 per cent. of criminal psychopaths. A positive EEG has been found in 60 per cent. of children before Domestic Relations Court and in 74 per cent. of those with behaviour disorders. Clardy found that his EEG work on schizophrenic children led to a recognition of organic disease, probably of a hypoplastic nature.

The subject of anatomical localization and the results of localized injuries and operations is closely related to physiology and to the attempt to find certain correlations between physical and mental pathology, although only a few of the observations recorded have anything but a most remote bearing on our problem. There is the work of Bourne on cell physiology and that of Adrian on methods of investigating localization. Work on the frontal lobes has received a marked impetus of late, especially since the introduction of prefrontal leucotomy by Moniz. This operation consists in severing association fibres at the front of the brain in an attempt to alter the personality of psychotics, the argument being that if old associations can be broken and new ones subsequently made, the psychotic personality may be changed into a more normal one. The results quoted by Freeman and Watts, Rizatti and Borgarello, Worchel and Lyerly and others do tend to show striking mental changes, the explanation of which is far from complete. Hutton suggests that this severing of association tracts leads to a replacement of reproductive memory by associative memory, so that attention becomes directed more to the present through the stimuli it provides than to the past and its memories. The value of leucotomy has been marked in cases of depression and hypochondriasis, and a possibly significant fact concerning the over-concern with bodily states that these patients display is that it has been found that after a leucotomy that proved successful there appeared degeneration in a tract linking the frontal lobe with the dorsal mesial nucleus of the thalamus. It remains to be shown whether this may lead to further light being thrown on the question of localization of emotions and of consciousness, a subject that has received much attention on all sides, notably by Alford, Kennard, Papez and Lashley, while Clark deals more especially with the hypothalamus, including its action on the endocrines; Walker, also Bard, have investigated these problems, the latter observing the hypothalamus's controlling effect on sex behaviour. Morel and Duman deal with the relation between mental symptoms and histological findings in general paralysis, while Alpers and Lewy in their work on mental symptoms after poisonings describe lesions (after carbon bisulphide) in the globus pallidus. The lesions of Pick's disease have been localized in the highest centres of the frontal, parietal and temporal lobes. Penfield and Erickson have written on localization in epilepsy.

Frontal lobectomy has been reported upon by Brickner in relation to the resultant impairment of synthesis of thought, while Rylander writes on personality changes after frontal lobe operations, and Palmer on head injuries and their mental effects.

Other contributions have included Kanzer on brain tumours and mental change, Conkey on the testing of abilities after brain injuries, Bostroem on emotional ' incontinence ' in organic brain lesions, and Povitskoya on lack of drive in frontal injuries and also in general paralysis. Grotjahn writes on psycho-analysis and brain disease, and Goldstein approaches the problem of focal lesions from the angle of Gestalt. Also studied are encephalography in schizophrenia (Moore), mental effects of gliomatosis (Nevin) and changes in oligodendroglia cells in schizophrenia (Elvidge and Reed). Pickworth describes small vascular lesions in the brain of psychotics; Goldensohn reports the case of a girl with personality and sexual disorders who was subsequently found to have an agenesis of the posterior part of the corpus callosum; and Mayer Gross deals with the question of pre-senile dementia and the ensuing loss of intellectual control.

We might here pause a moment to deal with some objection that might be made against devoting so much space to physical considerations. That these anatomical findings, and many of the physiological ones too, while useful in a fragmentary way, can never wholly explain mental illness is probably true, but they may often point the way to some of the causes that might account for a particular disorder. There is a school of thought, exemplified by the ' objective ' psychiatrists (e.g. Cameron), which maintains that it is unscientific thus to admit of multiple causes in mental disease, yet this principle of multiple causation has all the more claim to consideration that, even in normal behaviour, as has been so wisely emphasized by Kretschmer, it is possible to point to the presence of multiple motives, to over-determination. Both the *occurrence* and the *form* of a mental illness have to be explained, and not only may several causes account for the occurrence but even the form may require more than one explanation to account for it; thus even though a physical cause may account for the form of such a ' general ' disturbance as confusion, elation, acceleration of thought, motor inertia or volitional impairment, it may still be necessary to invoke a psychological cause to explain the more ' personal ' symptoms—the individual delusions, obsessions, fears and so on.

CHAPTER XII

EXPERIMENTAL, COMPARATIVE AND OTHER LINES OF WORK

EXPERIMENT is an integral part of any scientific approach, and a good deal of what has occupied our attention in preceding chapters partakes of the experimental. There are, however, some additional points to which we might devote a few pages, as there are also some interesting pointers in connection with comparative methods. These too we have seen exemplified before, as when the normal mind is contrasted with the abnormal one or the adult with the infantile. The comparing of human with animal behaviour, however, is a subject to which we have referred little as yet, while the problem of the primitive as compared to the civilized mind is one that belongs more to ethnology and will be considered later.

Linking up with some of the problems of cerebral localization considered in the last chapter are some experiments in cortical stimulation. Thus Penfield has found an area the stimulation of which produces vocalization, and Brickner has discovered another area where stimulation results in perseveration of speech. Some of the modern research on extra-sensory perception may be of importance to psychopathology, as also Rundquist's work on the judging of personalities from expressive behaviour. As an experiment in conditioning, Savchenko has produced hyperglycæmia by the sound of a whistle, this last having been first accompanied by adrenalin injections.

Animal experiments have been countless and the literature on the subject is increasingly vast, but only some of it relates in any way to abnormal behaviour, the rest being largely concerned with pure physiology and psychology. Of the recent contributions of special interest, mention might be made of Finan's work on frontal lobectomy and the resultant psychological effects in monkeys, C. P. Richter and Hawkes' on the removal of frontal lobes in rats, Klüver and Bucy's on the function of the temporal lobes in monkeys, Harlow's in a similar direction, the observations of Richter on increased activity in monkeys after brain

lesions, and Yoshida's work on animal brains. Experiments have been made on the fixation of conduct from frustration in rats by Maier and others, similar research having been made on reaction to frustration in psychotics and in children. The production of an experimental neurosis in animals has occupied numerous research workers, notably Liddell.

The observation of animal behaviour, when carried out with a view to judging the interrelationship of individuals within a 'social' structure, has always been popular and in the higher animals has yielded results of considerable importance. The works of Köhler and those of Zuckerman are by way of becoming classics (they will be referred to again later), and this line of approach has been followed up by many, for example W. T. James, who writes on the social behaviour of dogs. Yerkes deals with social behaviour of chimpanzees, Wolfles with the growth of co-operative behaviour in monkeys and in children, and Crawford writes on social dominance and menstruation in chimpanzees.

The pitfall of such research is of course that the observed behaviour has to be 'interpreted' by the observer, and in animal work, just as has so often been found in ethnological field work, the lack of agreement between different investigators strongly points to the bias that prevents such research from being wholly objective. One cannot but appreciate the value of the comments by Bertrand Russell on the way in which experimental animals seem to possess their observers' personal, even national, characteristics. Thus the American monkeys are regular go-getters, they rush about hither and thither and solve their problems by trial and error (as in the experiments of many of the early behaviourists); the German monkeys, on the other hand, are ponderous, slow, reflective creatures that evince an intelligent adaptation in which wide perception plays a leading part, as instanced in Köhler's apes (see also Chapter XVI).

Another and more directly psychological kind of experimental approach is that of mental testing. The subject, of course, seems wellnigh inexhaustible; starting with simple intelligence tests it has grown to include tests of all kinds, though the methods of testing intelligence always seem to be far ahead of those relating to emotions. Recent research that seems worthy of mention includes mental testing in psychotics (Davidson), tests in the diagnosis and prognosis of schizophrenia (H. Goldstein), and tests of functional loss in mental disease. Shipley writes on intellec-

tual impairment tests in psychotics and group methods, while Lowe and others use life situation tests to assess the prognosis of mental disorder. Prominent in the development of tests of all kinds are Babcock and Brody. Poliakova delineates memory and memorizing differences between hysteria and neurasthenia, and Hart, Spearman, Simmins (and more recently still Malamud and Palmer) have used tests in order to distinguish between a subnormality of any given degree and a mental enfeeblement of similar 'mental age'. Line and others write on the factor measurement of mental stability, the use of Thurstone's personality tests and attitude scales has been reviewed by Schott and Terman, and others again have devised tests for the recognition and estimation of masculine and feminine traits.

A test that has come into great prominence of late is the Rorschach test, in which ink blots are made and presented to the subject for him to use his imagination in describing what he sees in the shapes made by the blots. Often the paper is folded across the blot when the ink is fresh so that symmetrical shapes appear. The subject may see various objects in the blots, he may recognize appearances of movement and of colour, and according to the nature of his responses he can be assessed in many different ways. For example, Kerr, working on children, finds that primary colour responses measure impulsiveness and affective instability, and that the kinæsthetic and colour answers together show the subject's type and emotional balance. Vernon, Costa, Klopper, all write extensively on the test in general, while of the many special researches in the use of the test we might mention the results quoted in the comparison of normal and schizophrenic subjects (Rickers-Ovisiankina, and Hylkema), and those of Hanfman and Kasanin; not only has schizophrenia been shown to include a disturbance of conceptual thought, but it would appear that even in normal adults such thinking only occurs in those who have reached a fairly high level of education. Then there is the work done in the diagnosis of mental disease and the presence of introversion and extraversion (Weil), and in the prognosis of results after insulin therapy. Varvel has studied it in depression, Ross in clinical diagnosis, Hertz in adolescence and Endacott in juvenile delinquency. Singeisen has used it in cases of pulmonary tuberculosis and heart disease, Harrower-Erickson has investigated it in cerebral lesions and also as a test in war-time psychological difficulties, and Hunt (also Kisker)

reports on its results after lobotomy. Brussel reports on the test as a means of distinguishing between neurosis and organic post-concussion states.

Guirdham has written on the Rorschach test in relation to type psychology, and van der Waals with reference to Jung's association tests. Mention should also be made of Hallowell's remarks on the test as an aid to study personality in primitive society, and of Harrower-Erickson's recommendation that the test should be used in selecting air force personnel.

Before leaving this question of mental testing we should glance briefly at the work of Spearman and his ' London ' school on the factors concerned in the functioning of intelligence. On the cognitive side these factors fall into two groups: general or universal, and specific. The general or universal factors are those that, though they vary from individual to individual, are yet constant for each person and for all the mental ' abilities ' at issue. The other factors, the specific ones, on the other hand, vary in each individual from time to time, and vary also from one ability to another.

Now, most of the ordinary intelligence tests comprise a survey of numerous abilities; hence the variable specific factors tend to cancel out (owing to these being high for one ability, low for another, etc.), and the main result of the series of tests, the final average so to speak, depends on the general factors only, on account of these being constant for that individual and for all his abilities.

The first of these general factors, called ' g ', is identified with cortical energy. It enters principally into the three primary cognitive processes that are noegenetic (that is, are self-evident and can be known by direct introspection). These three processes are (1) introspective knowledge, e.g. knowing that one knows; (2) capacity for finding relations between ideas or other mental elements; (3) capacity for finding the second of two ideas thus related, given the first idea and the relation. The second factor, called ' p ', is also a constant for each individual and stands for ' perseveration '. If ' g ' denotes the amount of psycho-physical energy, then ' p ' is the measure of its ' inertia '. The third factor, ' o ', is ' oscillation '. It is that which is responsible for the fact that cognitive output never persists at a constant level, but definitely fluctuates. ' O ', therefore, represents the ' steadiness of supply ' of ' g ', in fact it measures fatigability.

It would appear that in mental disorders it is always the universal factors that are most affected and not the specific ones.

On the conative side, the first general factor to have been identified is the one that is called ' w ' and stands for poise and balance, or constancy of action, though latterly some doubt has been cast upon this factor by Walker and others. This factor favours stability generally, and it is reminiscent of the ' will ' of classical psychology; it may perhaps be correlated with Burt's ' emotionality '. Mitra regards it as the yearning for harmony that in his (psycho-analytical) view accounts for the emotion that originates from the disturbance of pre-birth harmony. Other workers on these lines are Stephenson, Pinard and Studman. This last has made a study of the ' f ' factor, fluency of association (what Cattell terms surgency), while other factors postulated are ' v ', verbal reproductive ability, ' m ', immediate memory, and ' s ', speeded mental activity. Maller discusses an ' e ' factor—inhibition of present desires for future goals. Cattell has applied some of this work to the study of differences in race and in social status, and in relation to perseveration he postulates a ' deep frustration ' as a causal factor. Stephenson discusses Jung's typology from this angle, and no doubt increasing correlations will be found between this and other schools. Often, of course, it is a question of terminology, as when Lashley speaks of a correlation function in virtue of which the brain functions as a whole, this function being probably much the same thing as Spearman's ' g '; likewise, the specific factors of Spearman are akin to Lashley's ' projection function '.

All this research is expanding day by day, but unfortunately for the general reader it is becoming more and more couched in mathematical terms, as is shown for example in Rashevsky's work and in that of Moore on the psychotic personality studied by symptoms and traits mathematically treated.

The various contributions we have so far considered, because they would seem likely to add to our knowledge of psychopathology in the broad sense of the word, have been grouped largely under the various viewpoints and methods in accordance with which they have been achieved. Research has gone on, within each ' school ', slowly, patiently, and perhaps somewhat in isolation from work done by rival schools, and it takes the presence of certain cataclysms, affecting the health and well-being of the whole community, to achieve any general quickening in the tempo of

scientific work or any greater tendency than usual towards mass observations that might lead to a diminution in the suspicion and antipathy that so often prevent the reconciliation of schools of thought at variance with one another. Such cataclysms may be nature-made or man-made, and one of the latter kind is upon us now in the shape of the present war.

Although it is too early to foresee the final effects of the war upon psychopathological theory and technique, we can observe already how a stimulus has been provided for the pooling of observations that would never have been made and shared in the way they have had it not been for the urgency of the situation. We can instance the large-scale observations being made on mental changes after brain injuries and on the results of war surgery; also the contributions in relation to the mental effects of blast (Anderson), while the subject of war neurosis is once again in the forefront. Whereas James still explains anxiety neuroses of war in terms of increased instinctual tension and of conflict between self-preservative, sex and herd instincts, yet, as Rickman has pointed out, in this war the conflict is being increasingly recognized as connected with the question of emotional bonds with others; that is, it is being re-stated in terms of object relationships. Love tends to follow Pavlov in his treatment of war-neurosis.

Kläsi and others have reached the conclusion that except in the short 'reactive' types and in those precipitated by direct injury, military service is not a cause of schizophrenia. Tooth reports on domestic troubles as a cause of breakdown in Navy personnel, while Prewer finds 22 per cent. mental abnormals in a series of 1,000 Naval offenders. Duval and Hoffman discuss the influence of army life on the incidence of 'homosexual' panic, Billings and others consider homosexuality a problem in 22 per cent. of psychiatric patients in the U.S. Army, and others consider the narcissistic and guilty types to be the least able to fit in with army discipline. The mentality of prisoners of war has been studied by Newman, and that of conscientious objectors by Moos.

Sargant and Slater report that a significantly high proportion of extraverted types are to be found among cases of amnesia after stress in the army, and they recommend (jointly with Debenham and Hill) that treatment of neurosis should include abreaction aided by sodium amytal. The 'effort' syndrome has provided many interesting observations, of which two might be quoted as

of special significance to us here. Witkower, Rodger and Wilson —also Lewis—find a large proportion of effort syndromes in people with a high self-regard, strict morality and severe repression of aggressiveness. The ' effort ' aspect of the syndrome is seriously questioned by Wood, who, after close investigation of the nature of the breathlessness, the situation of the sweating, and other symptom peculiarities, concludes that the picture presented is really not so much suggestive of *effort* as of *fear*. Rimoldi and Guttmann also write on this syndrome.

Other recent contributions of note include Glover, Fraser and others on the effect of war on civilians, Crichton-Miller on somatic factors conditioning air-raid reactions, and Isaacs, Henshaw, Howarth and others on children and the way they are much more affected by changes in the people to whom they have to adjust than by such physical events as air raids; in other words, evacuation is the main war problem for children. Observations on children's reaction to war in France have come from Mercier and Despart.

McLoughlin and Miller have devised a method for deconditioning hypersensitive patients to air-raid noises; they reproduce these noises and chart the patient's pulse-rate, respiration, etc., and use the improvements in the charts to reassure the patient. The psychoses of refugees and immigrants have been considered by Frost, while Vernon, in discussing morale, demonstrates how certain factors essential for its preservation show conformity with three of Spranger's types, the social, theoretical and political. Psychopathic personality in the Services has received attention from many, e.g. Petrie, Gillespie, Carrol and Curran, while J. C. Raven discusses mental testing in the Army. Contributions have come in bearing on the results obtained by personal selection boards in the three services.

CHAPTER XIII

KRETSCHMER'S CONSTITUTIONAL APPROACH

IN earlier chapters we considered the more strictly psychological aspects of our problem, in which the physical factors were largely left out of account. In Kempf, however, and still more in Berman, we found an attempt at linking up the mental with the physical; but all through the various views described there runs a tendency to start investigation from the pathological side, to consider the insane as essentially different from the sane. Even Berman's endocrine pictures are those of abnormal people, though the abnormality is of a useful kind termed genius and not of the anti-social variety called insanity. Yet, from time to time a voice from the wilderness was heard pleading for a regarding of the abnormal in the light of a normal personality gone wrong; not only that, but as a deviation that was not so much one of kind as one of degree. Particularly did the psychoanalysts emphasize this point of view, at least in pure psychopathology. Latterly there has, therefore, sprung to the fore a new kind of approach, characterized by the fact that the psychopathic make-up is more and more looked upon as being essentially due to a disturbed balance where some particular trend or mode of reaction has become so pronounced as to overpower other tendencies. In other words, the deranged personality is merely one where there is considerable unevenness between the different mental elements, whereas in the normal person these should be in better equilibrium.

But in so far as the perfect norm is not to be found in Nature, it follows that even normal people show excess or deficiency in some of their functions, though not enough to be called even neurotic.

So when we come to consider the physical and psychological characteristics of the different classes of mentally deranged, we only find an extreme degree of what obtains when we group ordinary people according to their constitutional make-up. It has therefore been argued that if a normal person be of such and such a type, then he must be liable—if liable at all—to a corresponding kind of mental disorder. This leads to the doctrine of

certain types being predisposed towards certain psychoses rather than to others, these predispositions being deducible from general physique and character.

The best-known work on these lines is that of Kretschmer. Many others have classified physique and character—especially the latter—but they did not use as exact and scientific methods as he does. (Some of the writers on character are mentioned in Chapter XV.) This general constitutional approach owes much of its importance to the fact that it includes within its scope many of the narrower points of view, be they biochemical, endocrinological, neurological or psychological.

The grouping of physical types, according to Kretschmer, includes the following four main classes:—

A. *The Athletic type.* Strong skeleton, powerful musculature, fine chest and free neck. Hands and feet large, at times even reminiscent of acromegaly. Biologically this type seems a milder form of the African negro physique and—going farther back in the evolutionary scale—of the gorilla.

B. *The Asthenic type.* The individuals are usually thin and long. The skin is dry, the shoulders are narrow, the arms lean and long, and the chest flat. Viewed historically, this type would seem to spring from the chimpanzee and the earlier Aryan races. It is a type frequent in dementia præcox.

C. *The Pyknic type.* This one is very different. The body cavities (head, thorax, abdomen) are large, there is a marked tendency to deposition of fat, and the contours of the body are rounded and graceful. The face is soft and broad, the hands short and wide. In many ways, this make-up seems to hark back to the Mongol races and—in the animal series—to the orang-outang.

D. *The Dysplastic group.* This is a mixed one, comprising mostly types that approximate to mild forms of glandular syndromes. For example, we have the elongated eunuchoids with their deficient secondary sexual characteristics; the eunuchoid and polyglandular fat abnormalities, and the infantile and hypoplastic varieties showing marked under-development and disproportion. These types of Kretschmer have been added to by other writers, notably by Rodalié, while constitution has been studied by Willemse (in delinquency) and also by Stockard.

So much for the physical aspects of personality. The next step was to correlate it with the mental side, and this not only in respect of confirmed mental derangement, but of 'normal'

individuals also. First as regards psychoses. Once elimination has been made of those disorders directly attributable to accidental and physical causes, such as toxæmia and exhaustion where the prominent clinical features are delirium and stupor, and epilepsy, and general paralysis, we have left the important class known as the biogenetic psychoses. These can be divided into two main groups:

(1) *The Cyclothymic* (or manic-depressive) *group*. The disorder is principally in the emotional sphere, and is remarkable for its tendency towards rapid though temporary recovery followed by relapses and recurrences. The personality, although deranged, is to a marked degree unified; there is no apparent disharmony between the different components of the patient's conduct; he is in fact what Bleuler calls ' syntonic '. He is, too, in good contact with his surroundings and he responds to environmental stimuli.

(2) *The Schizophrenic group*. This includes the dementia præcoxes, the paraphrenias and paranoias. They all evince, to a varying extent, a failure of synthesis; they appear to be divided within themselves; there is a lack of correspondence between ideas on the one hand and emotion on the other. Further, there may be expressed the phenomenon of antithesis known as ambivalency. In the milder forms we recognize the ' shut in ' personalities of Hoch that are so reminiscent of Jung's introverts.

The factor of predisposed personality had already been stressed by Meyer and others, and Kretschmer enlarged his classification so as to include all types, normal as well as abnormal, thereby emphasizing the points of similarity between sanity and insanity, rather than those of dissimilarity. His two great groups became the *Cycloid* and the *Schizoid*, and only the definitely abnormal amongst them were termed cyclothymics and schizophrenics. The former—the normal cycloids—were recognizable from their sociability, good nature, expression of emotion, and tendency to alternating moods. In contrast to these, the normal schizoids exhibit asociability, dry and unsympathetic outlook, eccentricity and restlessness, perhaps coupled with a brilliant intellect. In the former group would be found such as the gay chatterbox, the quiet humorist, the silent, good-tempered man, the happy enjoyer of life and the energetic, practical man; to the latter group would belong the polite, sensitive man, the world-hostile idealist and the cold, masterful type.

In discussing the production of these types, Kretschmer lays great stress on the importance of the family surroundings, much as Kempf does from his own angle. The psychological factors that go towards moulding personality into a particular type are principally (*a*) impressionability; (*b*) retentivity; (*c*) intrapsychic activity (elaboration, thinking, judgment); and (*d*) abreactivity (not in Breuer's sense, but merely meaning power of expression in overt action).

This scheme was further used by Ewald. He divided all temperaments into emotional and intellectual, each group being further subdivided into active and passive. He follows up the four factors mentioned above and attempts to estimate them quantitatively, giving figures up to 50 or so (the normal being 10) for the relative amounts of impressionability, retentivity, etc., present in any given personality, the result being expressed in formulæ. Hence from these it is possible to recognize certain main types of make-up, as well as to differentiate between the normal and the abnormal. These last would be characterized by the relative preponderance of certain factors over others. For instance, if the abreactivity were a little above normal, say 12, but the impressionability still higher, say 25, the individual would never sufficiently exploit his experiences psychically or express them in action; consequently his character would be weak, receptive, yielding, unable to resist or give vent to feeling. Somewhat akin to the above is Marston's recognition of four types of responses, namely, Dominance, Compliance, Submission, and Inducement, any one of which may be either active or passive; from this he arrives at certain formulæ, for example, passion = pIaS, and desire = pCaD, or satisfaction = aCpD. These are all ' unit ' responses that might perhaps be related to ' gestalt '.

Passing to the realm of the abnormal, Kretschmer has also classified what he recognizes as typical psychopathic reactions. These are (1) primitive, in the nature of higher cortical reflexes; impulsive acts. (2) Avoidance, such as occurs in hysteria and obsessional cases. (3) Expansive, as in paranoia; a kind of ' elaboration ' gone wrong. (4) Sensitive, including compulsions, anxiety and certain symbolic reactions. (5) Asthenic, such as can be found in simple melancholia, where there is depression without constructive thought; the patient is aware but not interested, sad but not worried.

On comparing the normal and abnormal mental aspects of

personality with the physical ones, Kretschmer finds that an overwhelming majority of cycloid or circular types are associated with the pyknic constitution, whereas most schizoid temperaments evince a physical make-up that belongs either to the astheno-athletic group, or else to the dysplastic ones. From the psycho-analytical angle it has been argued, however, that the production of these types in any extreme form is based not only on somatic factors but on psychic ones that are chiefly operative through unsatisfactory object relationships during the early or late oral phases. Recent work has included Kretschmer's on the psychology of genius (in which he is more inclined than formerly to approach the psycho-analytic standpoint), Rosanoff and others' work on constitutional factors in manic-depressive psychosis as found in twins, Strauss's investigation into the distribution of these types in the weak-minded, Corman's study of visage and character, and Klages' and Saudek's researches on handwriting. This last has also been investigated in different forms of psychoses by Lewinson, and in relation to hereditary character by Schade, while graphological skill has been considered by Mira in his discussion of myokinetic psycho-diagnosis in depression, schizophrenia, elation, and epilepsy. Bowlby has restated Kretschmer's types, but his 'syntonic' group is not really defined and its recognition seems to depend merely on an absence of schizoid characteristics. Cobb goes rather farther, and indeed draws little essential distinction between schizoid and affective psychoses. Pollack has related Kretschmer's typology to prognosis in general paralysis, just as Hoch has linked up introversion and extraversion with the types and the prognosis of the alcoholic psychoses; introverts are specially liable to delirium tremens and confusion, and provide a recovery rate of 78 per cent., while introverts develop hallucinosis and paranoid states from which only 26 per cent. recover. Fay and Middleton report on the estimation of Kretschmer's types by means of radio voice, an interesting contribution to the place of verbal tones in type diagnosis. Wolff has investigated physical asymmetry, and in view of the fact that he finds on the left side of the body certain appearances that contradict the obvious sex of the individual, and that the left side of the body is controlled by that half of the brain that attains a less high degree of functional adaptation, he suggests that while the left brain is the organ of intelligence and consciousness, the right brain is

the seat more particularly of unconscious and primitive processes concerned, for example, with the repression of those traits that pertain to the opposite sex.

In this connection, it is interesting to note how the Italian school (De-Giovanni, Viola, Pende) have recognized a micro-splanchnic type where the vertical diameters of the body are excessively developed compared to the horizontal ones, a macro-splanchnic type with the opposite characteristics, and a normo-splanchnic one. In so far as the trunk subserves the vegetative life, and the limbs and musculature subserve the animal life of obtaining contact with the environment, the two systems—vegetative and animal—are mutually complementary; but also, they are to some degree antagonistic, hence the frequent disproportions between these systems and—according to this school—the parts of the nervous system controlling them. Pende has attempted to correlate this with hormone functions, distinguishing between those that promote the development of the vegetative system and those that promote the growth of the animal system. De-Giovanni shows how these morphological types are each prone to disorders and diseases peculiar to themselves, and links up medicine with morphology in a most ingenious way. Of interest to us here is the fact that neurasthenics and psychasthenics are found mostly amongst the micro-splanchnics, and manic-depressives amongst the macro-splanchnics. This outlook may be related to the one that separates vagotonia from sympathetico-tonia. It would appear, according to some (e.g. Rava), that the micro-splanchnics are emotional, and macro-splanchnics instinctive.

Without following up in detail the implications found in Kretschmer's approach, we may yet say that it provides an important step towards equating the physical with the mental; for not only may bodily characteristics now be used as confirmatory to psychological diagnosis, but this outlook may also lead to further correlation of general build with such other factors as autonomic reactions, gland personalities, etc. Kretschmer's outlook has certainly exerted a marked influence on psychiatry, in that the question of constitutional make-up and reaction types has become of increasing moment. We might note, for instance, how Meyer has emphasized reaction types, and how his point of view has been accepted in this country by many writers (e.g. Henderson and Gillespie).

Already certain anomalies of physique are becoming more systematically attributed to endocrine influences. For instance, the generalization has recently been made that endogenous—as compared to exogenous—obesity in infants is hypothyroidic, whilst juvenile obesity is hypo-pituitary, or hypothyro-pituitary, in origin. Adult obesity is more often pluriglandular, and the gonadal variety seldom occurs before forty. Thyroid insufficiency is supposed to lead to general deposition of fat, pituitary adiposity occurs more around shoulders and pelvic girdles, and gonadal obesity affects the trochanteric and mammary regions.

We notice how there is a close resemblance between the dysplastic eunuchoid of Kretschmer, the thymus personality of Berman, and certain forms of homosexual predispositions. The 'type rond digestif' of the French (Sigaud classifies types as respiratory, muscular and digestive) is practically the pyknic type, with the marks of the cycloid temperament, and we saw how some of these show marked faults of metabolism, and when viewed from the angle of Jung's approach probably include most of the sensational extraverts. The asthenic type of Kretschmer bears much resemblance to the hyperthyroid (cum pituitary) type of Berman.

Again, the normal schizoid, the schizophrenic, and some of the glandular personalities agree closely with each other, and when we remember how Mott, Foster, Marsh, McCartney, and more recently Hemphill, and others have demonstrated pathological changes occurring in the endocrines (to say nothing of the changes in other organs) in dementia præcox, more especially in the gonads, we begin to see a link between this aspect of schizophrenia and the frequency with which the onset of the disorder is associated with important sex events (puberty, adolescence, engagement, marriage). From here further relationships might be found with some of the psycho-analytic theories of psychosexual development, and also the phenomenon of Jungian introversion.

In any case, it is only by correlating these different classifications of types that we shall have really advanced towards a more complete understanding of those elusive entities which we term mind and personality. A not inconsiderable impetus is being supplied in this direction by the characterologists and all those who have attempted to survey the field of personality as a whole, without, for all that, approaching the problem from the exclusive viewpoint of any narrow school.

CHAPTER XIV

ETHNOLOGICAL AND SOCIOLOGICAL EVIDENCE

THE recapitulation theory—that individual mental development (as described by psycho-analysis) is but a compressed edition of racial development—must depend for its proof, in part at least, upon the study of primitive societies. The material accumulated concerning tribal customs, myths and organizations has been frequently invoked by Freud in his writings; as to Jung, he seems to have ranged over the whole gamut of mystical and religious beliefs in his elaboration of analytical psychology; while Rivers relied more upon personal observations made amongst primitives. But a great deal of research is still required before it can be said, with any certainty, whether early tribal organizations uphold or disprove psycho-analytic and other theories concerning them. Of late, much first-hand information has been gleaned by what might broadly be termed the functional ethnologists, among which are numbered Malinowski, Radcliffe-Brown, Thurnwald, Firth, Pitt-Rivers, Dorsey, Sapir, Goldenweiser, Richards, Westermarck, Mead, Fortune and Driberg.

One important question related to the psycho-analytic insistence on the primary importance of father dominance and incest taboos is the one as to whether societies were first patriarchal and monogamous, with individual kinship and a family, or whether they were promiscuous, with group kinship and no family. In favour of the first possibility, providing support for the psycho-analytic theory, are Westermarck, Lang, Crawley, Schmidt; in favour of the second are Durkheim, Rivers, Hartland, Briffault and Frazer. Indeed, many writers have denied the presence of the Œdipus-complex in primitive groups, for instance Malinowski, though some would admit its inevitability in patriarchal societies. Suttie believes in the possibility of an Œdipus-free society, while Burrow would replace the idea of a universal Œdipus reaction by that of a 'primary subjective phase' in which the child regards its mother as part of itself. This is not a case of sex attachment to the mother as an object; it is rather that the child has not yet learnt to distinguish the maternal breast as distinct from its (the child's) own body. This primary

indentification he believes to be still operative in the unconscious of adult life.

Even though this particular point has not yet been decided, some of the modern field researches have yielded material of collateral interest. Two examples might be quoted, the work of Malinowski and of Mead. In the Trobriand Islands, Malinowski found a matrilineal patrilocal society, in which the father is the friend and the nurse of the child rather than a despot. His place is taken later by an uncle who may rule severely, but this only happens at the time when the child has already reached a certain age. Heavy brother-sister taboos exist, but otherwise sexual freedom during childhood and adolescence is considerable, and sex is not associated with sin. Yet marriage is monogamous, and adultery comparatively rare, if only because it is considered ' unseemly ', a term applied also to sexual aberrations. To be specially noticed is the fact that in this society neurosis and mental derangement are practically unknown. In the Amphlets, however, the family is closely knit, society is matrilineal, and there is no pre-marital freedom. Here neurosis is not uncommon. In Mailu, descent is patrilineal, marriages are strict, the sense of sin is very marked, and neurosis very frequent. In Samoa, Mead observed a society composed of large ' blood groups ' but no small families. Children are under the control of all the adults of the group and of the older children, while themselves controlling all the younger children. Some sex taboos exist, but considerable *sub-rosa* liberty is allowed. There are few fears such as might be associated with ' sex ' guilt, the common fears being those of failure in sex and failure in dancing. The marriage tie is fairly loose. The incidence of neurosis and insanity is very low.

From these few examples, then, some support can be adduced for the psycho-analytical view that sex repression accounts for most neurosis. The absence of neurosis might also be related to the lack of child oppression by the father in the Trobriands, and the great liberty of children in Samoa; especially so in the latter, on account of violent reactions to individual parents being unlikely where a child has to adjust to a whole host of adults. As emphasized by Fenichel, hate and love are less constant or enduring in savages, owing to there being less close contact for the development of the Œdipus-complex. On the other hand, the psycho-analytic view that culture is derived from

repression of sex and of the Œdipus-complex is not borne out by the appearance of a culture (primitive though it may be) in societies characterized by marked sex freedom and apparently no Œdipus-complex.

Other factors that would appear to make for a neurosis-free society are the way in which a primitive leads a life devoid of high stakes, and the fact that during adolescence no important choices have to be made, such as might determine stresses and conflicts. Unlike the savage in a homogeneous milieu, the average youth brought up in a Western civilization will have to make important moral decisions when he reaches manhood: decisions in connection with his philosophical outlook (duty, hedonism, moral responsibility, etc.), his political adherence (Conservatism, Liberalism, Socialism and what not), his spiritual beliefs (Catholicism, Church of England, Presbyterianism, Unitarianism, Agnosticism, Atheism, and so on), and his sexual codes (permanent marriage, divorce, companionate marriage, trial marriage, transient unions, promiscuousness, monogamy, polygamy, etc.). This has been particularly stressed by Mead and McDougall.

Further, it may be significant that there is more likelihood of responsibility being assumed gradually in Samoan culture than in our own. The fact that the child is subject to older children while itself ruling over younger ones makes for a nice balance between authority and submission; as the child grows up the number of its masters diminishes at the same rate that its obligations increase; it is less and less a servant and more and more a responsible mentor, especially when—as in Samoa—the older children have quite important duties to perform towards the younger ones. Nevertheless, the child is never regarded as a fully responsible person; it has the rights of all individuals (except that of ' presuming above its age '), but it is not expected to submit to taboos with the same strictness as adults. Hence it is spared any overwhelming sense of guilt and shame, and is better able to ' live out ' its earlier narcistic, homosexual and other stages without serious conflicts occurring.

Another point of importance is that where, as in Samoa, the child is subject to the teaching of many elders, any hostile reactions he may develop against some adults are cancelled out by the affectionate ones elicited by others, so that his attitude towards the culture inculcated will not be coloured by his atti-

tudes towards those inculcating it; unlike what obtains in the closely knit family, there is little risk of a father-resentment leading to rebellion against all that the father stands for—authority, law, order, etc.

Observations of this kind are accumulating rapidly, some of which may have an important bearing upon psychopathology. Mention might be made of Róheim's discovery that the 'latency period' of childhood is absent in Australian natives, of his remarks on dreams and associations in field anthropology, and of his observations on racial differences in mental disease. M. E. Smith also writes on race comparison in neurosis as found in Hawaii. We should note also Seligman's work on temperaments and conflicts in the Papuans and on Egypt and Negro Africa. Aginsky reports on Californian Indians and their attacks of anxiety and guilt leading to collapse and death. Schizophrenia is said to be rare in primitives, and Devereux suggests that if a primitive or a child feels disorientated (a rare occurrence) resort is had to phantasy and ritual, but if it occurs (and it frequently does) in a civilized adult, then the phantasy formation leads to schizophrenia. Other writers on schizophrenia in primitive tribes include Laubscher and Osborne, the latter suggesting that thinking in schizophrenia is always concrete and not abstract. Indeed, it is possible that such material may some day afford a basis for a new psychopathology. It has been argued that psycho-analysis is too much derived from observation of material that is the result of recent Western (sexual) problems, and it may be possible in the future to construct a psychopathology that will explain all neuroses, in all men, at all times.

Coming to the study of modern, so-called 'advanced' societies, enough has been said concerning recent work on character, personality, types and mental disorders to establish the fact that psychopathology owes much to the investigation of individual man as a social unit. There is, however, another line of enquiry that is producing results important to psychopathology, and that is the statistical one. Ever since Pearson's correlation methods have made possible the mathematical isolation of a variable that cannot be isolated experimentally, the group method of investigation has made rapid strides, and its technique is becoming more perfected. As an illustration of sound statistical work, the exemplary methods of Hartshorne and May in their studies of dishonesty in eleven hundred children

might be mentioned. Thurstone's work on the measurement of social aptitude is also of some importance. Such questions as the relation between insanity, general make-up and race can only be elucidated by large-scale studies, contributions on this subject being those of Kirby and Bailey; Dayton has also given exhaustive figures in his recent book. Faris and Dunham write on the social incidence of schizophrenia. Intelligence was thought to be merely average in neurosis, but studies on a broad scale by Eysenk have shown that while this is essentially true there is a much higher distribution in the extreme ranges both above and below the average than is to be found in normal controls. The psychological effect of unemployment has been investigated in a village in which everyone was, and had for a long time been, completely out of work (Lazarsfeld); and so on.

To take one or two examples of the value of statistical enquiries. Valuable and epoch-making as were the works of Havelock Ellis, Forel, Hirschfeld, Krafft-Ebing and others, they always suffered from the limitations imposed by the scantiness and possible unrepresentativeness of material acquired personally, piecemeal, in the consulting-room or the hospital. More extensive studies were required before some of their discoveries could be definitely accepted. Now, the psycho-analytical view that homosexuality is a stage through which we all pass, and one which persists in many people, found little favour at first, even once it had been pointed out that such persistence was very often unconscious and only rarely overtly expressed, and in spite of the evidence collected by the above investigators from case histories. But when Davis's masterly study of the sex factors in the life of twenty-two hundred women appeared, what were the facts revealed? It was shown that out of 1,200 single women no less than 50 per cent. had had intense, exclusive and passionate mental reactions towards other women, about half of these admitting that these reactions had included physical manifestations; even in 1,000 married women the incidence was 30 per cent., again half having been physically expressed. Dickenson and Beam, however, found histories of physical homosexuality in very few of 1,000 married women, but their series was investigated primarily from the gynæcological angle, not from the sexual one. Hamilton and McGowan in their study of a hundred marriages found that only 44 per cent. of the wives were able to deny all memory of homosexual play in earlier life. It is facts such as

these that do much towards affording support for the universal presence of a homosexual component in all individuals.

Nor are auto-erotic phenomena even yet sufficiently widely recognized as almost universal, although they are upheld by psycho-analysis and other schools as inevitable manifestations, at least during childhood development. But recent investigations have shown that masturbation occurs or has occurred in over 90 per cent. of the male population. Davis in her statistics states that, out of a thousand women, some 65 per cent. gave definite histories of masturbation, half of these still practising it (even though the term was defined in the questionnaire in a much less comprehensive way than would now apply to the broader term auto-eroticism), while Hamilton found it in over 70 per cent. of his wives and 97 per cent. of his husbands. Dickenson and Beam found direct or indirect evidence of it in 70 per cent. of married women and in 50 per cent. of single ones, but the histories in the latter group were less full than those in the former.

Similarly, in relation to the insistence of psychopathology on the frequent occurrence of sexual maladjustments in marriage, we note that Hamilton found it in about 50 per cent. of his 100 cases, Davis in 20 per cent. of her 1,000, and Dickenson and Beam in 40 per cent. of their 1,000 cases. So that before the findings of psychological medicine are rejected or abused by workers in other fields, and before moralists lay down the law concerning facts as they should be, it is imperative that an impartial examination be made of facts as they are, and it is only by extensive statistical studies that conviction can be brought to those who are blind because they do not wish to see, no less than to those who, wishing to see, find what is not there.

CHAPTER XV

THE ECLECTICS AND CHARACTEROLOGISTS

WE have now completed our survey of the main approaches to the psychological problems of mental disorders. All the main approaches, that is, except one, dealing with suggestion and hypnosis. The reason this one has not been included is because it contributes little to the theoretical aspect of our subject, and limits itself rather to the therapeutic task of alleviating symptoms.

The views which we have considered, however, fall roughly into six groups:

(1) The analytical, with its three subdivisions, headed by Freud, Adler, and Jung.
(2) The neurological, subdivided into the physical experimental approach—Watson—and the more psychological one—Rivers and Kempf.
(3) The physio-anatomical, comprising endocrinology, biochemistry, general physiology and anatomy.
(4) The experimental and comparative, including animal observation and mental testing.
(5) The constitutional, standing in a somewhat central relation to, and possessing many links with, the other approaches.
(6) The ethnological and sociological, yielding collateral evidence in confirmation or otherwise of the other schools.

More than once have we noticed the need for correlating one school with another, and expressed the hope that a unification may some day be possible. It is true that of recent years British psychiatry has made some attempt towards it. Unfortunately, however, the bringing together of these different points of view has resulted not so much in a unification as in a mere combination. Writers have invoked several theories at once in their endeavours to evolve a broader, more comprehensive psychopathology, but they seem to have been guided too much by the expediency of the case. They lean on Freud one moment, on Jung the next, then invoke Rivers, just as it suits them, without having done

much towards resolving, let alone recognizing, the radical and often irreconcilable differences between the various schools. As a result, our textbooks have suffered from much confusion and from a superficiality of explanation; probably because a deeper elucidation would have tended to reveal those very difficulties that were being smoothed over or ignored.

Freud and Jung are especially often combined together, for instance by Tansley, but the result has at times led to a vagueness of conception and of expression that leaves far behind the terminological exactitude that is characteristic of that scientific outlook which we all preach and so little practise. Harding, on the other hand, seems to follow both Adler and Jung.

Then these concepts have been gradually broadened beyond recognition. Take the treatment received by the ' herd-instinct ' at the hands of Trotter, Tansley, Yellowlees and others. We find here that what is included under this heading is much more than an innate trend or even combination of trends. The herd-instinct grows larger and larger as each author describes it again and again, as others have done, but also adding a little bit of his own to it. It is finally made to include a host of reactions that are acquired, not innate; the product of education, not the result of heredity; reactions to an already established herd, not an urge towards the formation of a herd.

Emotions fare as badly. Owing to the different ways of regarding emotion current in the literature, and the way in which authors often fail to define their own conceptions and usage of terms before plunging into the thick of the matter, many a general reader has had to give up in despair. Again, why is ' complex ' used so variously ? Some employ it as synonymous with ' sentiment '; Hart uses it as something usually like, but sometimes larger than, a sentiment (in the latter case more like Morton Prince's ' system ') but without limiting its meaning—as the Freudians do—to constellations of ideas and tendencies that are *unconscious*. Many other words can be mentioned, several of which we have already partly discussed, such as dissociation, suppression, intuition, ego, introspection, etc., to each of which more than one meaning has been ascribed by different schools. To say nothing of the difficulty afforded by the opposite kind of fault, that of multiple terms for the designation of one and the same concept. We would do better if we devoted more time to showing how different authors use different words to mean

nearly the same thing, rather than allowing ourselves to be misled into using one word to express a number of things.

Perhaps the present situation owes much of its unsatisfactoriness to the wholesale acceptance of McDougall's theories, to which we have so often referred. Without embarking upon a detailed criticism of his views (which are more fully discussed in Chapter XXI) we may admit that he has obscured the situation as much as he has illuminated it. There has grown a tendency to use, in so-called analytic interpretations of mental conflict, McDougall's ' instinct ' instead of Freud's. But it need hardly be pointed out that McDougall's concept of an instinct is very different from the Freudian one. Further, the application of the theories of repression, sublimation, etc., to McDougall's narrow instincts provides an explanation that is too limited, too fragmentary, to do justice to the unified whole that is the human personality.

Nor are McDougall's interpretations of particular mental disorders too satisfying. Representing as he does a school that is inclined to blame psycho-analysis for seeing sex everywhere, it seems odd that he should explain such dissimilar diseases as schizophrenia, mania and melancholia as disorders affecting the sentiment of self-regard. He is using here one principle (self-regard), much as Freud uses sex and Adler power, to explain as many things as possible. His separation of mental disorders into dissociation and repression groups, with neurasthenia, paranoia and schizophrenia, etc., jostling each other in the latter group, has not found too ready an acceptance.

In this country there is a growing class of psychotherapeutists whose outlook is largely Freudian without being ' all Freud and nothing but Freud ', exemplified by Ross, Rees, Dicks, Neustatter, Suttie and others. An instance of recognizing general non-sexual attitudes in the explanation of mental disorder is Levy's stress on maternal over-protection and Cameron's emphasis on feelings of loneliness in the ætiology of senile psychoses. Dicks finds infantile fear in general at the root of most mental illness, a fear that can be interpreted as one of castration (psycho-analysis), of insignificance (individual psychology), or of advance to the next stage of development (analytical psychology). Suttie admits the importance of the mother, but in a larger sense than the psycho-analytic one; he holds that all cultural non-appetitive needs originate from mother deprivation, such deprivation being the first frustration experienced by the child and one that results

in an important sense of loneliness. Moreover, the psycho-analytical dualism between Love and Hate, with Tenderness the product of inhibited libido, is discarded by him and replaced by Love in opposition to Tenderness, with Hate the result of frustration. Hadfield also stresses the importance of loss of mother-love (again in a more than sexual sense), as also does Graham Howe, and, unlike some other schools, he traces anxiety to *real* causes of fear in childhood. Moreover, he has relied for therapeutic results upon a combination of hypno-analysis and suggestion. The abreaction which he encourages has also been employed by Brown and Eder.

Graham Howe follows Freud in part, but also uses Adler (at least as regards terminology, if not conceptual theory) and accepts Jung to the extent of believing in the recapitulation of racial attitude in each individual, and of recognizing a Father imago into which enter the primitive ideas of inferiority, magic, power, guilt, retaliation and fear; this imago is later split up into two forms of expression, one accounting for religious attitudes towards God and Devil, the other leading to the response to King and Law. Howe views personality as depending on (1) individual experience, (2) recapitulation, (3) type, (4) physical factors, and (5) an integrative factor. From a therapeutic angle, eclecticism is again much in evidence, as when Carrol enumerates the forms of therapy found of use in clinics, these including persuasion, suggestion, analysis and ' modified analysis '.

Horney's work shows some interesting departures from orthodoxy. Instead of linking early female development solely with the castration complex, she maintains that girls have early anxieties connected with the vagina; she also denies that the phallic stage in boys is inevitable and regards its presence rather as a usual abnormality. Again, she contradicts those writers who assume that masochism is as inherent in a woman as sadism is in a man (e.g. Hutton), and holds that female masochism is a resultant of our civilization through blocking of sex expression, restriction in number of children, the viewing of woman as inferior, economic dependence, and lack of marriage for surplus women. Thirdly, she minimizes the extent to which personal conflicts and stresses enter into the production of neuroses, and instead ascribes the major causative rôle to pressure of the environment. Social behaviour and social standards are complementary variables, culture being as much a mirror of the

human mind as the individual mind is itself a reflection of current culture. Hence the individual problems that make for a breakdown are looked upon by Horney as primarily the result of cultural influences. Supporting her in her emphasis on social pressure as a cause of neurosis are Birnbaum, and Kisker and Knox in their consideration of the social-biological aspect of mental disease. Neurosis, to Horney, appears as a measure to provide safety and not as an attempt at gratifying an instinct; it comes from the total personality rather than from isolated infantile impulses. Anna Freud extends the original psychoanalytical theory by her recognition of different types of anxiety —the super-ego anxiety of adults, the objective anxiety of the pre-super-ego stage of development and the instinctive anxiety which results from instinctual tensions most marked at puberty and the menopause. Fairbairn disagrees with the acceptance of anal and phallic phases of development, while Dalbiez, in an exhaustive critique of psycho-analysis, goes farther and denies the validity of the theory of erotogenic zones.

A new concept has recently appeared under the term dys-symbole, a state of mind characterized by an inability to formulate conceptual thoughts upon personal topics or to discriminate the gradations of personal emotions in language intelligible to others. According to Skottowe, dys-symbole occurs in some schizophrenics, but Thomas sees it in all schizophrenic cases. Kant adopts the German concept of a stratification of the personality, and of the three strata (psychological, vital and somatic) he believes the first two to be affected in schizophrenia; this is somewhat reminiscent of Laignel-Lavastine's ' concentric method ' in which he recognizes five ' zones,' the psychic, nervous, endocrine, visceral and morbific.

Of a ' broad ' approach to psychopathology the best instance is the ' psychobiology ' that originated with A. Meyer and has been followed by Noyes and others. It is less rigid than the other schools, and might best be described as an attitude or philosophical approach to psychiatry the principles of which can be, and often are, subscribed to by workers of very divergent schools of thought. For the psychobiologist, the individual is a dynamic and purposive psycho-somatic unit, psyche and soma being two aspects of the human organism whose reaction to environment is called behaviour. Physical, intellectual, emotional and social reactions are part aspects of behaviour, of the total reaction that

is a psychobiological attempt to secure a satisfactory adjustment to life's conditions. Failure in this adjustment will lead to abnormal reactions, even psychotic symptoms. To understand these disorders the psychiatrist must obtain information from many sources, including the physicist, the chemist, biologist, physiologist, anthropologist, sociologist and psychologist. The school of Meyer borrows freely from others. With reservations, the motives and mechanisms described by Freud are accepted. Jung's teleological approach, Kretschmer's constitutional types and much of Adler's theory, especially with regard to social maladjustment, all find a place within the framework of psychobiology. Meyer's 'reaction types' alone have exerted much influence upon British psychiatry.

The purposive point of view adopted by Meyer is also to be found elsewhere; thus Mourgue pleads for the recognition of *meaning* as well as *cause* to explain mental disease; he adopts a teleological view and combines Freud with Sherrington, Pavlov and Jaensch. Recently, Prinzhorn's outlook has attracted some attention here, perhaps because he represents a more satisfying blending of various schools. In addition to psycho-analysis, Prinzhorn maintains that two further points of view are needed: (1) a characterology and (2) a doctrine of life. He grants at least as great an importance to intuition as Jung does, and like Jung he regards the therapist as a representative of the supreme law; hence the importance of the physician's view of life, his ethics, and his obligation not to adopt the impartiality advocated by the psycho-analytical school. Summarizing Prinzhorn's views Crichton-Miller says: "He offers a synthesis of biology, psychology and religion in which he emphasizes the spiritual isolation of the neurotic, the essential place of human mediation and support, the function of the psychotherapist as a guide, the importance of temperament in the patient and intuition in the psychotherapist, the limitations of the objective study of personality, the central necessity of valuation for all adjustment, the inadequacy of an instinct psychology and the effective function of the psychotherapist's personal ethos."

Prinzhorn's demand for a characterology as part of a psychotherapist's equipment is probably very wise, for the characterologists have contributed much towards broadening the outlook upon personality and its disorders, and they have succeeded in evolving formulæ that are more general, more fluid than those of

psychiatry. What is here lost in precision is regained in increased applicability; for instance, Roback sees in neurosis three essential factors which he expresses in a way that allows of different interpretations and ' translations ', these being irregularity of instinctive function, defect in inhibitory system, and inapplicability of regulative principles.

We have already noted some interpretations of character by Ewald, Marston and Jung. The two broad divisions of Jung (based on ' attitude ') were already reminiscent of the Apollonians and Dionysians of Nietzsche, Prometheus and Epimetheus of Goëthe, the more impassioned and less impassioned of Jordan, the tough-minded and the tender-minded of James, the prolific and the devouring of Blake, and the ' masculine ' and ' feminine ' of Weininger. Freud has listed three main libidinal types, namely, (1) erotic, which represents the id, evincing a marked desire to be loved; if insane, this type will develop hysteria; (2) obsessional, representing the super-ego, which is self-reliant but afraid of conscience; in this type mental derangement will partake of the characters of an obsessional neurosis; (3) narcissistic, representing the ego, with excess of self-preservative reactions; here mental derangement will be definitely psychotic. Further, combined forms may occur. Other examples of typology might be mentioned, such as Baldwin's sensory and motor types, Bain and Shand's work on such factors as instincts, sentiments and emotions, Perez's emphasis on kinds of action (slow, quick, vehement), or Malapert and Fouillée's research on intellect. Rank recognizes four types—average, criminal, artistic and neurotic (artiste manqué). Levy classifies types according to the blending or non-blending of three functions—feeling, intellect and will. Meumann does so according as to whether the will is strong or weak, transient or lasting, narrow or broad, immediate or deferred. Rosanoff has a semi-pathological division into antisocial, cyclothymic, artistic and epileptic, while Kretschmer recognizes cyclothymic and schizothymic groups. Stern and Spranger have a classification based upon the individual's mode of evaluation—economic, theoretical, artistic, social, political or religious. The theoretic has an objective outlook that relies on the truth or falsehood of a situation as ascertained by reason; the economic is swayed by utility, the elimination of waste and the worth-whileness of the result in relation to the effort required; the æsthetic is concerned primarily with form and harmony; the social is guided by his relationship to others and his position

as a servant of the group; the political finds his drive in his desire for power, and the religious yields himself to a supra-personal outlook with cosmic orientation. Stern is of interest in that he approximates closely to English writers in his stressing of conative unity. Several important and useful works have recently appeared on this subject, notably by Symonds, Kahn, Murphy and Jensen, other general writers on personality, apart from mere typology, being Allport, Roback and Gordon. Klages amplifies character in a way closely approximating to McDougall's use of organized and co-operating sentiments. Physical and psychotic types are mentioned by Wells, also Cohen. Rosenthal discusses typology and conditioned reflexes. Pavlov speaks of choleric, sanguine, melancholic and phlegmatic types, the first two with an excess of excitation over the other two, the sanguine and the phlegmatic being well balanced in contrast with the choleric and melancholic. Mackenzie recognizes two pairs of characteristics leading to the delineation of the immediate type (quick reactors and opportunists) and the deliberate type (slow plodders); each of these may be further subdivided into simplifiers (subjective personalities who contract facts and data into some unifying principle or formula) and amplifiers (objective personalities who string facts into extended and elaborate chains of evidence). Lenz, after considering the results of heredo-psychological group studies by means of integrational typology, reaches the startling conclusion that adjustment to society, social feeling and leadership qualities are mainly determined by organic structure.

Reviewing all these character psychologies, this much at least can be said. Cases of mental illness cannot all be analysed, and therefore a completely reductive interpretation has often to be dispensed with. It is just in such cases that a characterology is so useful, and even though an open mind be kept as regards the fundamental concepts on which such a characterology might be erected, its practical value may still be considerable. If a system of typology enables individuals to be conveniently described, grouped and recognized, if it offers a reasonable insight into what these individuals have done, and foresight into what they may yet do, and if it further affords suggestions for the efficient influencing of the future behaviour of these persons, then clinical psychiatry can be grateful to it for having done a great deal that more complex psychologies have often failed to accomplish.

CHAPTER XVI

THE POSITION IN PSYCHOLOGY

PSYCHOLOGY and psychopathology have been termed sister sciences, but like all near relatives they do not always get on together too well. They have of necessity much in common; they may some day combine to afford a more unified view of all human nature, one that will illumine the normal as well as the abnormal. For this, if for no other reason, a brief sketch of the position in psychology might be justifiably attempted.

A hundred years ago, the study of psychology was an armchair kind of affair. The psychologist (generally a philosopher) would sit back and examine his own thoughts, judgments, emotions, feelings, sensations, and so on. He would be concentrating on the study of consciousness and of all that introspection revealed therein. Subsequently, however, the rapid development of other sciences had a marked effect on psychological methods.

From chemistry, psychology absorbed the notion of analysing all its more complex entities into simpler units, just as chemical compounds can be described in terms of their elements. Physics supplied the stimulus for attempting to evolve quantitative methods of investigation. Then from physiology came the experimental method of enquiry, already used in the study of certain phenomena on the hinterland between physiology and psychology, such as sensation. Biology contributed the comparative point of view, leading to the contrasting of civilized minds with primitive minds, adult ones with infantile ones, human with infra-human. Lastly, psychiatry added its contribution to the common store of knowledge by its study of deranged minds, finding therein many explanations of what occurs in a so-called normal mentality. All these new influences, however, did not always blend very happily, and as a result we find a parting of the ways, with the formation of some half a dozen main schools, or perhaps we should say groups of schools, the difference between them mostly depending on the particular method of enquiry or subject for investigation which each believes will provide a master key for opening doors round, over or under which—according to the moderns—the older psychologists had in vain been trying to

peer. Thus one school emphasizes sensation whilst another studies perception as a whole; another school makes the concept of purpose its corner-stone; yet another pins its faith on reflexes; many aim to achieve scientific consistency, while a few agree to be frankly illogical, even mystical.

The revolt against the associationism of yester-year led to a school that, while still admitting the value of introspection with all its accumulated results from Locke to Ward, attempts to modernize the methods of psychology, and that has now become the ' existential ' school, of which Titchener is perhaps the best representative. It is in this school, derived from structuralism, that we may find an emphasis placed on sensation and its success may in part have been due not only to its own intrinsic worth but also to the fact that it had its counterpart in philosophy—for instance, the neo-realists.

Passing now to another school, we come to a large group of psychologists who have, in greater or less degree, departed from the old point of view that psychology is the science of mind; they insist that psychology should regard man as a complete organism, as an acting and reacting unit; in short, they believe that the essential task of psychology should be the study of ' behaviour '. Leaving aside the fact that this science of behaviour has also been known by other names such as praxiology (Dunlap), anthroponomy (Hunter), it must be remembered that all psychologists that study behaviour by no means belong to one close-knit group.

Some would include under the heading of behaviour the mental processes that introspection reveals as occurring in consciousness; even unconscious events have been included. Others would considerably restrict the rôle of introspection; or even limit it to the rudimentary introspection required for the mere giving of verbal reports in psychological experiments.

Whereas many of these ' behaviour ' psychologists (such as Pillsbury and McDougall) still give introspection and consciousness some recognition, there is a radical school, Behaviourism, that attempts to relinquish all abstract concepts and refuses to use such ' mental ' terms as idea, thought, image, feeling or desire; it would concentrate exclusively on the objective study of behaviour, expressing its results in objective terms. Thus behaviourism would not speak of visual or auditory sensations; it would refer to a ' response to a light stimulus ' or to a ' response to a sound stimulus '.

Behaviourism is especially associated with the name of Watson, though in point of fact Watson's behaviourism was just preceded by that of Frost, in which consciousness still had a place, though the term was used simply to denote 'awareness'. Behaviourism owed much of its inspiration to the animal psychology of Thorndike and of Yerkes in which the necessarily objective method was made to yield material that was novel, illuminating and of considerable value. Behaviourism found further support in the work of Pavlov on glandular reflexes and of Bechterev on motor responses, and consequently all behaviour came to be viewed as the result of the conditioning and deconditioning of a few innate reflexes; even the appearance of 'deliberation', found when overt or explicit conduct is held up, is explained on the theory of 'implicit' behaviour, consisting in imperceptible motor responses and changes in the stream of motor innervations.

The importance of behaviourism lies not only in the worth of its observations but perhaps also in the satisfying outlook it can supply for all those who are minded to throw aside the old order and to relinquish as completely as possible the fetishes and conventions of classical psychology. Whether it will ultimately survive as a movement we cannot tell. If it does, the behaviourists of today will doubtless be hailed as prophets. If not, well, we know how the successful rebel is lauded as a patriot whilst the unsuccessful patriot is abandoned as a rebel.

This reaction against introspection and consciousness is not, however, the only one directed against established psychology. There is another young but vigorous movement that represents an attack upon what might be termed the brick-and-mortar system in psychology. The protagonists of this new school hold that complex mental processes cannot be satisfactorily analysed into simpler units; by attempting to do so, something is often lost that cannot be traced in the component 'parts'. To build up from such elementary units as sensations on the one hand or reflexes on the other, like constructing a house from bricks, is not possible owing to the absence of 'mortar' to make them adhere into recognizable wholes. In fact, the proper way to study certain mental phenomena is to investigate them as wholes, taking the whole situation as indivisible. This movement, with which are associated the names of Wertheimer, Köhler, Koffka, Peterman, Lewin, and in America, Lewis, Ogden and Wheeler,

has led to the ' Gestalt ' school. These workers have shown how, in perception, the total impression received was never one that could be explained on the basis of summation of sensations. For example, melodies are not appreciated as mere sums of sounds, facial expressions cannot be analysed into the single impressions received from each part of the face; in both these illustrations there is a sensing of a something that characterizes the situation as a whole. Further, in perception, the various parts of the situation are apt to be grouped in certain ways, tending to form certain ' arrangements ' or ' sets ', adopting certain ' forms ' or ' configurations ', as when regularly scattered dots on a white background tend to be perceived in groups. Finally, certain configurations are so typical and customary that they are actually sought even in situations that do not contain them, and many of our impressions are characterized in terms of the configurations to which they most nearly approximate. For instance, three lines, arranged in a certain way, will give an impression of a square-minus-one-side, and a regularly curved line with its end almost meeting its beginning will be perceived as a circle-with-a-segment-cut-out; in this case we are expressing our impressions in terms of incomplete wholes. We would appear to perceive in terms of wholes, to be looking for wholes, and to be completing them in our minds when we find them incomplete. Although this capacity for forming ' sets ' had already been recognized by earlier workers such as Müller of Gottingen and the Külpe group, and investigated in relation to the problem of memory, it had not been appreciated as a factor in cognitive processes until recently, and the Gestalt psychologists have now extended their researches beyond the sphere of mere perception.

Then several different schools have sprung up, all of which take a ' purposive ' point of view. Thus hedonism implies that certain goals are sought because they afford forms of satisfaction; on the other hand, hormism holds that goals are sought for their own sake, owing to some intrinsic value they possess, irrespective of any pleasure that may attend their attainment. An important example of this last school is McDougall's hormic psychology. In this psychology, the central theme is the presence in man and animals of certain tendencies, or urges, each one leading to a definite end (this final result being regarded as its purpose), these urges being made to account for all forms of behaviour. Here behaviour is of course regarded in the broad sense and due

recognition is accorded to abstract mental processes as well as to the motor responses so dear to the behaviourists. Also based on instincts and just as definitely purposive as McDougall's psychology are the various analytical viewpoints.

Other lines of thought may also be noted, such as the ones found in the large class of character psychologies and typologies, or in some of the new ' human ' psychologies that are purposive without for all that attempting to be rational (on the basis that much of what is fundamental in man is necessarily irrational) and in the return of more physical and experimental methods exemplified by Spearman's psychology of abilities.

Here we have several streams of thought, and the fact must be faced that it seems sometimes very difficult to see how these come to contain much truth while appearing so mutually exclusive. Though there is a good deal in common between existentialism and hormic psychology, behaviourism and Gestalt seem to be speaking a language of their own, especially the former; yet between it and hormic psychology there is at least a link in that they both emphasize behaviour, although they view it differently. There are undoubtedly numerous ways in which these schools connect up, if only because they cannot be original on every one of the topics they discuss, but the reconciliation of their major themes is more difficult; nevertheless, there are signs that the chasm between them may slowly be bridged.

For instance, we know how the Gestalt psychologist stresses the fact that we perceive in terms of wholes, and that wholeness is a guiding factor not only in cognition but in action too. Thus, you decide to make row after row of small vertical strokes on sheets of paper. You soon tire, but in order to spur yourself on you invent goals for yourself, you think in terms of arbitrarily conceived wholes; the page becomes a whole for aiming at, then each line is taken as a goal in itself, or you divide your strokes into groups of five or ten, and so on. Again, if subjects are given a number of tasks to perform, and are allowed to complete some and not others, it is found that they will later remember better the incompleted ones than the completed, probably on account of the removal of tension associated with the completed tasks in contrast to the persistence of tension consequent upon a ' whole ' not having been accomplished. When the Gestalt psychologist is speaking of our appreciation of wholes, of our striving after wholes, of our tendency to ' close the gap ' when wholeness is

absent, what is he really discussing? Is he not, in fact, dealing with *purpose*? The purpose that forms so integral a part of hormic psychology but which is here described from another angle and in different terms, but nevertheless *purpose*.

Again, Gestalt psychology has investigated the function of this appreciation of wholeness in the development of insight. Köhler has discussed this in his book on apes, and he has further pointed out that this synthesis of parts into a whole (such as is required for the solving of a problem requiring implements or tools) is still on a perceptual plane; if all the elements for solving a problem are not present in the same visual field at one and the same time, the animal cannot succeed; it can only synthesize perceptually, and not ideationally. But the fact that it can, and does, appreciate the situation *as a whole*, and that it is on this fact that its learning depends, disposes of the older views concerning the learning of animals by ' trial and error ' only. The strict behaviourist, of course, clings to the trial and error theory (to which Allport has added Baldwin's ' circular reflex '), but we have an interesting link between these schools in the fact that some behaviourists have somewhat wandered away from Watson and have cast definite doubt upon this theory (e.g. Lashley), having shown how learning is not simply the conditioning of responses to one stimulus, but involves the *comparison* of stimuli. There is the famous rat who was conditioned to go to a medium-grey box for its food rather than an empty light-grey one; and when the light-grey one was replaced by a dark-grey box, the rat then went to the dark-grey box, that is, to the *darker of the two*; this shows an instance of comparison which is very near to the ' appreciation of the situation as a whole ' stressed by Gestalt psychology; it is a definite synthesis, providing a common ground between these two schools; as *insight* it is stressed by C. K. Ogden. Further, if the solving of such problems were merely a matter of conditioning, it might be expected that the final performance—say the opening of a box to obtain food—would be carried out in one specific way only, whereas actually the animal may well open its box once with his nose, another time with its paw, showing no absolutely fixed response. Again, a chick after conditioning will go for a large grain that is far away rather than a small one nearby, though of the two retinal images the one projected by the far grain must in fact be the smaller.

There is, too, another group of behaviourists who do not

regard instinct as mere chains of reflexes, but who do recognize purpose to a certain extent (such as Tolman and Perry), thereby paving the way for a reconciliation between behaviourism on the one hand and hormic psychology on the other. And whereas these behaviourists still deny consciousness as a legitimate field of study, there are those (for instance, Allport) who at least adopt a more non-committal attitude towards it. Again, a meeting-ground may be found between behaviourism and the analytical schools, in the transition from primitive unadapted behaviour to higher adapted behaviour, described by Pavlov (conditioning), Freud (primary and secondary processes) and Rivers (protopathic becoming epicritic). Wertheimer's Law of Prägnanz, the psychological counterpart of the physical law that physical systems tend to adopt, or retain, the most favourable form to meet surrounding conditions, may link the Gestalt idea of an energy concerned in maintaining a state of equilibrium with Freud's death instinct and Rignano's stationary physiological state. Orenstein and Schilder write on the Gestalt approach to schizophrenia and insulin therapy, while Holstijn, stressing the oral factors in paraphrenia and pyknic traits, shows how children identify the mouth and throat with thought processes, a possible link with Watson's views on implicit behaviour. The question of Gestalt and the temperament cycles of Kretschmer has been dealt with by Wachter. In any case eclecticism in psychology is becoming less of a crime than formerly, as has been ably upheld by Boring.

The difficulty in discussing psychology is that one is so often bordering on philosophy. Philosophy has more than a little bearing upon our outlook in abnormal psychology, and it may be forgiven if a passing reference be made to some possible points of contact between the two. First of all, certain interesting parallels have been drawn, such as that between the supremacy of ideas in the world of a platonist philosopher and in the world of a paranoiac. The rôle of love and hate and the recurrence of cycles in manic-depressive psychosis has been compared with the philosophy of Empedocles, and to the belief in change as the essence of reality, found in Heraclitus, Bergson and Croce. Again, over-emphasis on mental states leads to solipsism in philosophy and to unreality feelings in early schizophrenia. Lézama has suggested that the production of affectivity is due to convergent causalities, and equates it with a principle of universal entropy, while catatonia

has been regarded by some as due to entropy occurring in a closed mental system.

Doubtless, for those who already have some definite philosophical outlook, the various psychopathological schools will not appear equally acceptable. For instance, any belief in true free-will must tend to cut across a whole-hearted acceptance of psycho-analysis, as will also the belief in a categorical imperative operating in ethics. Not so with Jung's analytical psychology, however, which could more easily be reconciled with an acceptance of absolute moral values. Again, Jung's type-psychology, with its emphasis on intuition, and Prinzhorn's belief in intuition as an essential factor in psycho-therapy, might prove especially true to a follower of such an ' intuition psychology ' as Bergson's. Emergence might be equated with the ' wholeness ' of Gestalt, while the integration stressed by Meyer, Muncie and others might be related to Smuts' holism, a concept that K. Goldstein regards as very near Gestalt. The reliance placed by existential psychology on sensation accords well with the neo-realists, such as Bertrand Russell, who holds that, if from the data provided by sensation we reason in certain ways, in a certain direction, we deduce all that we term mental, and if we reason in another way, in another direction, we deduce what we term matter, but neither matter nor mind has any claim to reality; they are only two different aspects of the one fundamental fact, sensation. This view is but a new form of the neutral monism of Spinoza.

Ultimately the acceptance or rejection of these different viewpoints must largely rest with the particular sets of values which we all have, and Blacker has done good service in emphasizing the importance of an understanding of values in psychological medicine. For, as pointed out by Rank and Sachs as opposed to Ferenczi, even though reductive interpretations can be given to some of our abstract beliefs, and even if psycho-analysis does lay bare the motives behind a philosophical assertion, its task does not include its evaluation. Values are present in all choices, they sway patients and physicians alike, and they are important factors to appreciate in such non-analytical therapies as hypnotism, suggestion, persuasion, and re-education. Without an understanding of the patient's values little effective contact can be achieved. Primarily, our values are all part of a normative outlook, part of our need for truth (Logic), beauty (Æsthetics), and goodness (Ethics), and we have seen earlier how standards

of evaluation have been made the basis of the characterology of Stern and Spranger. True that values reside in the primary need of repressed instinct, but it is modified by judgment and a merely reductive interpretation of them is likely to remain inadequate.

More particularly, these values have been classified by Blacker into (1) commercial values, e.g. money; (2) biological values, e.g. food; and (3) sentimental values. These last may be (*a*) indiscriminate: shared by a whole race, e.g. courage, truth; (*b*) discriminate: shared by a section or group only, e.g. the British form of nationalism in the inhabitants of the British Empire or tradition in a particular family; (*c*) personal: not shared by others to any extent, e.g. the belief of certain cranks or of earlier followers of a new school. Any one of the above values may assume a leading rôle in a person's adaptive processes, for every individual, ill or well, has certain ' pivotal ' values (' the master purpose ' of McDougall and the ' goal value ' of Wickert) that have a highly compelling urgency, moulding behaviour in accordance with a particular pattern. It is not too much to say that an appreciation of the values operating in each patient is essential to the therapist who would actively guide him in his adjustments to life and its attendant difficulties.

CHAPTER XVII

APPLIED PSYCHOPATHOLOGY—I

DURING the past few years there seems to have been a distinct awakening to the importance of normal and abnormal psychology in realms other than the psychiatric. More and more are thinking men and women prepared not only to discuss in the drawing-room details that had hitherto been confined to the secrecy of the consulting-room, but to develop a very real thirst for a better understanding of the human mind in all its aspects. In our novels, our newspapers, our educational magazines, even our religious journals, there is evidence of an increasing preoccupation with the abstract, the psychic, the queer and the abnormal. Maybe this is but a reaction against the crude materialism of 1900, a reaction exemplified by the way in which physics—that most material of material sciences—has become more and more intangible, but for all that it is a reaction which can be turned to good purpose, provided we escape the journalistic fault of educating others by appealing to their love of the sensational rather than to their respect for the truth. It is of course very unfortunate that so little publicity is accorded to psychiatric work—unless it be the wild demands for lunacy law reform, the lurid descriptions of alleged asylum atrocities, or the inaccurate reporting of lawsuits brought against psychiatric institutions and their staffs that appear from time to time—and one welcomes any sign of a more enlightened outlook, such as the popular expositions of mental hospital work given by Winterton and Stern.

The ways in which psychopathology has been applied to everyday life, personal and social, have been the subject of many a large volume, and here we shall only attempt a brief reference to some of these applications, sufficient to indicate the nature of the sources from which further information can be obtained.

General Medicine

Still on the border-line of psychiatry are those mental disorders in which physical disease is the main cause; in these, psychopathology has to be invoked in order to explain, if not the

production of the symptoms, at least their form. In general paralysis, for example, Hollós and Ferenczi have taken the view that the mental symptoms, other than those of mere confusion or dementia (due to brain intoxication or destruction), result from impotency leading to a regression that goes back to a point where the damaged function was not yet developed. In this connection, Katan insists on the importance of knowledge of infection, while Schilder denies the regression because patients do not make much use of regressive thinking; but Schilder is perhaps speaking here more of libido regression than ego regression. Kenyon and Rapaport support Hollós and Ferenczi as the result of their work on metrazol in general paralysis, while Grotjahn also writes on psycho-analysis and brain disease, including general paralysis. Adler explains the symptoms on the basis of organ inferiority.

A little farther from psychiatry come those cases in which mild mental symptoms may make their appearance after an operation, the operation possibly proving a starting-point for the awakening of castration fears. Then there are the host of instances found in general medicine of the close connection between the mental and the physical, the bearing of psycho-analysis upon these being well discussed by Alexander; from another angle Adler has never tired of insisting on the way in which every disease is conditioned by structural, functional and psychic factors.

Witkower, and also Dunbar, stress the psychogenesis of bodily disease and the influence of emotion on organ function. A case of epilepsy is reported on by Berg, where analysis resulted in the fits becoming conscious, that is hysterical, and finally in a cure. Bram, after study of five thousand cases of exophthalmic goitre, states that 90 per cent. of them had a history of psychic trauma, while some authors go as far as looking upon all hypersecretory endocrine disorders (if not due to new growths) as psychologically determined. The mental changes in arterial hypertension, with special reference to their causative rôle, have been reported on by Krapf, also Guttmann and S. K: Robinson, asthma being similarly dealt with by French, Alexander, Obendorf, McDermott and Rogerson. Zilboorg and Smalldon write on psychological factors in childbirth, and Bálint on menstruation. This last considers that menstruation may assume the form of a conversion symptom, for example when a wife starts to menstruate immediately on her husband's return: thus establishing that any child subsequently born could not have resulted from the wife's unfaithfulness

during her husband's absence. Other topics dealt with have been psychological traits in hæmatemesis (Wilson), digestive complaints in personality disorders (G. C. Robinson), and mental make-up in ulcerative colitis (Witkower). Functional spasms of the œsophagus, recognizable by œsophagoscopy but not by X-ray, is another subject of interest; also the psychopathology of anorexia, of acne, of tuberculosis, and many other conditions. Inman has studied the symbolism of glasses, a point of importance in ophthalmological practice.

Jelliffe believes that mental factors produce physical disease by causing a regression to take place to the level of independent unsynthesized organ pleasure. A complaint that is at first functional may ultimately become organic. In connection with chronic skin diseases, he points out some interesting contrasts; thus psoriasis is dry and affects principally the extensor aspects of the limbs, the musculature of these aspects being that associated with reactions of refusal and aggression; eczema, on the other hand, is wet and affects the flexor surfaces, those associated with possession and love (the erotic significance of flexor surfaces compared with extensor ones is easily observed), and Jelliffe relates some of these diseases to mental disturbances. Post-encephalitic respiratory disorders are another group of symptoms he has attempted to explain psycho-analytically. He also refers to the mental make-up in tuberculosis, in gastric cases (related to oral-anal phases of alimentary eroticism) and to the hostile impulses typical of osteo-arthritis, his general thesis being that many physical diseases consist in irreversible reactions in bodily organs caused by mental mechanisms.

Crime and Delinquency

Socialization implies organization and the sacrifice of personal gratification in favour of communal interests, and it is not to be expected that resignation to frustration should be easily achieved, without some method of guiding and of applying pressure upon the individual who would refuse to adapt his behaviour to the needs of the group. The method employed is that of standards, from which codes of conduct are deduced, transgression of these codes constituting crime in the broadest sense.

The ways of controlling potential transgressors are numerous and varied, and may be grouped as (1) Individual, as when direct

teaching and precept is enforced by one person upon another, (2) Government, (3) Law, (4) Religion, (5) Non-institutionalized forms of teaching, such as are found in gangs, cliques and other transient groups, (6) Public opinion and propaganda, and (7) Tradition. One result of all these influences is the production of what might broadly be termed a sense of right and wrong. Part of this arises from the formation of the super-ego, but it is doubtful whether, in view of its weakening after a certain stage of development has been reached, the super-ego ever acts as a complete deterrent against any anti-social forms of behaviour, except perhaps cannibalism, patricide, fratricide and incest, these being the earliest and most primitive acts to be consistently tabooed and therefore those that have, through countless generations, been most definitely established as 'unnatural crimes'. Nor is the conscious 'conscience' any better at preventing the occurrence of unlawful acts, for we have seen often enough how the ego may come in conflict with reality or with the id. Moreover, the unconscious super-ego may sometimes enforce standards that are at variance with those of the conscious ego.

It is the production of such conflicts that often determines an abnormal behaviour that may be merely neurotic, or may, in addition, be actually criminal; it is due to the influence of psychopathology that the criminal is at last beginning to be regarded as a possibly sick person, one in whom mental conditions are sufficiently unhealthy to produce a kind of behaviour opposed to that of healthy-minded persons. For some time now, minor or compulsive misdeeds (kleptomania, for instance) have been appreciated as symptoms of mental trouble. Thieving in children is often a form of revenge or aggression, an aggression that is only too often due to the faulty influences by which the child is surrounded, and which is directed against the parents.

It is only recently, however, that a tendency has become manifest to accept such major crimes as incendiarism and murder as equally conditioned by illness. Indeed, some crimes are committed not because the act itself directly expresses any particular desire, conscious or unconscious, but because it is a means to an end: the sense of guilt is so strong in some individuals, from an unresolved Œdipus-complex with its attendant attitudes, that the only way to appease it is (according to Alexander) either to satisfy the id by symbols of murder, or else to commit such offences as will bring a punishment that is unconsciously felt to be

deserved; just as in children punishment is welcomed as a means of regaining the love and esteem of the parents. Self-denial as a means of easing a sense of guilt has been stressed by Bruch (and may have a bearing on hunger-strikes), arson in children has been dealt with by Yarvel, while Durca underlines emotional immaturity as a cause of delinquency. It is only when the importance of unconscious and symbolic motives is fully appreciated that crime will be properly understood.

The accepting of a criminal as a mentally afflicted person evidently raises important questions in relation to the justifiability and adequacy of punishment, whether it be looked upon as a retribution, or a deterrent, or a method of reform; moreover, some punishments (e.g. imprisonment) have important and detrimental effects of their own, as pointed out by Glueck, while all punishment has the further disadvantage of satisfying the sadism of the judge and the masochism of the culprit. Hence the growth of a strong movement in favour of treatment rather than punishment in such cases as would appear (after psychological examination) to be likely to benefit thereby. The whole problem of the criminal is full of interest, and one that has been extensively dealt with from the psychological point of view by Alexander, Glueck (B. and S.), Hamblin Smith, Healy, Karpman, Lorand and White, also Tulchin, Cassity and Gutheil; Endacott reports on the Rorschach test in juvenile delinquency; Clark writes upon the psycho-analytical aspect of mental deficiency, one of the ' causes ' of crime, this linking up with the broader question of heredity, a problem that is well reviewed by Myerson.

Law and its Administration

Law is a necessary part of social organization, a tool for ensuring a uniformity of conduct that will be conducive to harmonious life within the group. But just as no single legal measure is perfect, so can the whole legal system be attacked from several angles. (1) It is, first of all, largely based on the assumption of free-will, in contrast to the determinism that is implied in several schools of psychopathology; (2) it is always antiquated, behind the times, and represents not the opinion of the advanced thinkers of the race, nor even that of the averagely intelligent, but that of the dull, conventional and unimaginative masses; (3) it comes too late in the life of the individual; its effect is only

felt and appreciated by the child when it is already long past the age of five or six, the age at which some authorities believe its character to be already formed; (4) it controls only overt and not implicit behaviour, dealing as it does with actions rather than desire; (5) lastly—and this is perhaps the most potent argument against it—it is itself the result of collective mental factors that may contain as much of the pathological as those of the individuals it is meant to control.

The Judge is another psychological factor in legal procedure, for it is difficult to over-estimate the influence of his own bias and attitude upon his management of a case. His repressions may quite well urge him to project on to the accused; what he ignores in himself he may be only too willing to discover in others; he may be impelled to assess one part of the evidence differently from another, and the severity with which he inflicts punishment may be the result of stresses and conflicts of his own, far more often than is usually realized.

Barristers must be considered as well. What has been said about the judges applies with equal force to other members of the legal profession. In addition, it would be interesting to estimate —little research has been done in this direction as yet—the psychological effect and the particular mental reactions resulting from having to defend a man whom one knows or believes to be guilty. It seems not unreasonable to suppose that all sorts of dormant complexes, charged with childhood feelings such as guilt, might be touched upon and stirred by the necessity of distorting the truth in order to make a guilty person appear innocent.

Juries are just as liable to be swayed by prejudice and personal conflicts as the judge; in fact more so, for they often consist of uncultured people, with little breadth of outlook, and they evince a marked aversion to the prolonged use of the head for thinking. Many group or class reactions may urge the jury into irrational decisions, even though the factor stimulating these reactions may have nothing to do with the case. For example, women jurors as a class are very apt to be strongly biased against any witness or accused about whom it has become incidentally revealed that she—it is generally a woman—had engaged in an unlegalized sex relationship. A woman who gives love for nothing will always stir intense resentment in married women, as well as spinsters and even prostitutes, for they one and all object to a blackleg who spoils their chances of living at somebody else's expense by thus

giving away freely what they themselves have to sell (permanently in marriage, temporarily in prostitution) at as high a price as the market will allow.

Witnesses provide another problem in legal procedure, for the same prejudices and reactions that affect judge and jury may also operate in a witness, to say nothing of the fact that witnessing certain events much more effectively stirs up emotional tendencies than merely hearing about them. In fact, the reliability of a witness may be impaired by a host of factors depending upon his attitude or ' set ' (*a*) at the time of the event, (*b*) after the event, (*c*) at the time of relating the event, (*d*) after relating the event, and (*e*) at the time of being cross-examined on the event. In addition, such factors as fear of appearing inefficient—leading to a reluctance to saying 'I don't know'—or a desire to be sensational and in the limelight, may also affect the case.

The Police have their rôle to play in many ways, especially in the collecting of first-hand evidence and of preliminary statements; here, too, psychological factors have far-reaching effects. In this connection, Muscio's experiments are of considerable interest, for he investigated the marked effect of *forms* of questioning upon the witness's suggestiveness, caution and reliability. Of late, experimental methods have made their appearance in interrogations, based upon the results of psychological research. Many years ago, Jung showed how his association test could be used for the identification of a culprit, and recently Larson has written on the combined use of the association tests, blood-pressure records and psycho-galvanic reflexes, for ascertaining emotional reactions in witnesses and others under cross-examination. Reik has an interesting analytic study of the deductive processes and their unconscious components that come into play in the detection and punishment of crime. Other sources on these problems are Alexander, Brown, Arnold, Hamblin Smith, Staub, Hoag and Williams, and, more recently, Mullins.

Education

Education has been the subject of voluminous researches and it would be impossible to summarize all this work here, the contributions made by psychology in this direction having been extremely numerous. For instance, there is the work of Gestalt psychology on insight and on the transforming of mental and motor configurations (as compared with the trial and error theory

of learning, on which the behaviourists have done so much research), conditioning being too simple a process —according to Lashley—to explain all the facts. Much has been done, too, in the investigation of the effect upon learning of sex, age, fatigue, culture, materials used, *motives* and *health*, the last two especially coming within the province of psychopathology.

Most of these researches, however, bear upon the question of learning, of instruction, of the acquiring of knowledge, although this is by no means the major rôle of education. Indeed, one cannot help feeling that too much emphasis has been placed upon the development of intellect, and not enough upon the training of emotional reactions. It is the task of education to produce a stable, socialized individual, and to prevent the production of delinquency on the one hand or of inefficiency on the other. From all that has been said before, it will be evident how much psychopathology can contribute in this direction, for many educational problems come back to conflicts between socialized sentiments and individual reaction tendencies.

It is the realization of these larger problems that has led to the intensive study in schools and other educational centres of personality and its assessment. Many tests have been devised of late, though it is doubtful whether they can have anything more than a very relative value: tests to estimate aggressiveness, caution, confidence, honesty, originality, persistence, reliability, altruism, interest, prejudice, stability, inhibition, etc., the more prominent names associated with these tests being those of Moore, Crane, Downey, Woodworth, Allport, Cady, Voelker, Bridges, Pressey, and Franzer, to say nothing of Binet and Cattell. Many studies have been made of students and teachers concerning their attitudes and problems (e.g. by Fry). Examinations and their symbolic significance as initiation rites have been investigated by Flügel, also by Sutherland. The writers who have viewed education from a broad, psychological, even philosophical, angle have included Russell, Burt, Nunn, Thorndike, Fox, Dewey, Urwick, Dunlap, Weiss, Kuo, Allport, Tolman and Dashiell, while Piaget has been responsible for extensive studies on the child's development of perception, ideation and judgment. Mauco draws an interesting parallel between Piaget's description of the development of thinking processes and Freud's account of emotional development. The behaviouristic contribution has come mainly from Watson, Koffka being the more prominent of

the Gestalt psychologists to attack the problem of education. Incidentally, the first educationalist to apply the findings of psycho-analysis was Häberlin.

Child Guidance

In the previous section we have referred mostly to education as carried out in groups, such as school and college classes, but the education of children in the home presents an even more important problem, for it is largely due to home influences that so many children evince those distressing and difficult personality traits the recognition of which has led to the movement known as child guidance. The apathetic child, the unruly child, the child who is always pilfering, the child who cannot tell the truth, these are all so many sick children or—as Neill would put it—unhappy rather than naughty children. As often as not these faults may be shown to arise from the child's reactions towards some unfair or unwise attitude adopted by one or both parents. Thus, pilfering may be the expression of an aggressive reaction towards a domineering mother, lying may likewise be symptomatic of internal stress, disobedience a rebellion against an unjust father, etc. Enuresis may be a love gift, a reparative act, a hostile act, an attempt to excrete what is harmful, or the result of physical fear. Yet psychiatry has been slow in adopting a truly psychopathological outlook on child disorders, as may be seen even in otherwise good modern textbooks (e.g. Kanner's).

The elucidation of these mental difficulties is the work of the Child Guidance Clinics, the first to be opened being the one in Philadelphia in 1896, followed a quarter of a century later by the first English clinics. The stresses of childhood are not so difficult to uncover as adult ones, for they are not so much deep intrapsychic conflicts as simple reactions to direct frustrations; examples of these reactions abound in the literature, a very adequate specimen collection occurring in Waters' book. Very frequently frustrations arise from particular family situations, such as that of the only child, the youngest child, the child with only one parent, etc. Moreover, it is extremely important to realize that children's troubles are often the result of the parents' unconscious conflicts, as Kempf has so often insisted. According to Huschka, nearly 50 per cent. of mothers of problem children suffer from psychopathological conditions themselves. To take one example: a

frigid mother is evidently a woman whose love-life has been unexpressed and unfulfilled, and she may react to this frustration in one of two ways. Either she may resent it unconsciously and become aggressive as a result, and will therefore be hard, unbending and intolerant, particularly so towards the first stirrings in her child of those promptings that have been so poorly satisfied in herself; or else she may react submissively, and will seek consolation in her child, so smothering it with love and affection that the child will never be able to leave her without feeling lost and helpless. In either case, the child's sense of inferiority will be dangerously increased, conditioned as it already is by the *physical* superiority of the parents and their comparative freedom. Klein has stressed the way in which investigation of children's play activities may yield important information. For instance, a child who resents a particular relative (say a favoured brother) and who is interested in drawing, may consistently leave that resented person out of the pictures it makes, thereby expressing a death wish against him—at least in the sense that a child understands death, which is merely that of ' not being there '. Also to be borne in mind is Groos's theory that play is a preparation for adult activities, and in this connection Bálint has pointed out that fore-pleasure is the only kind in children and that it is only in adults that end-pleasure makes its appearance. There is a tendency, however, found in certain play-therapists, to look upon play not so much as a diagnostic indication but as an outlet in harmless form of certain troublesome trends, such as masochism, sense of guilt, aggressiveness, etc. It is doubtful whether to encourage play on that score may not be dangerous and tend to ensure a persistence of a stage that might be relinquished sooner if substitutive interests elsewhere could be provided.

It is in the unveiling (if not always in the psychological explanation) of these inferiority feelings and their compensatory aggressive reactions that the Adlerian school has proved so efficient, for it not only provides an aptly descriptive psychology, but it deals with mechanisms and attitudes that can readily be grasped. Popular expositions of the new ' child psychology ' have been given by Neill, Mannin and Russell, also Cameron, Evans, Rogers and Moodie, whilst amongst the psycho-analytic writers might be mentioned Klein, Searl, Chadwick, Isaacs Horney, Ribble, Sharpe, Schmiderberg and Anna Freud; Wittels has also written on childhood difficulties, Blanchard has specialized

on adolescence, Pfister is responsible for an extensive study of love in children, while M. E. Watson has excellent case histories.

Svendsen, also Bender and Vogel, discuss the question of children's imaginary companions, Anthony stresses the importance of ideas of death in child phantasy, while Homburger deals with configurations in play. He ends by grouping children into suckers, biters, retainers, expellers, and intruders, a scheme that is strangely reminiscent of Freud's stages of libido development. Lowenfeld also describes play, and de la Mare has collected many child problems and sayings. Fordham approaches these problems from the Jungian angle.

Vocational Psychology

The researches of psychology into personality and the development of abilities has rendered possible the assessment of an individual's fitness for certain kinds of work. This has led to the growth of vocational psychology, and its influence is already being largely felt and, what is more, proved to be beneficial. As pointed out by Myers, however, it is important that any psychological tests purporting to estimate intelligence should be properly adapted to the culture and tradition of those to whom it is to be applied. Thus, when American tests were applied to the Japanese in Hawaii, they showed the Japanese to be deficient in intelligence, and when the Japanese retorted by applying Japanese tests to the Americans it was the latter who were proved wanting.

Nevertheless, properly applied, these tests can be of considerable value, and this has been well borne out by some of the results quoted by Myers. For instance, tests were used, followed by advice as to the choice of a vocation, on twelve hundred school leavers. Amongst those who took the advice, there were fewer changes of post and higher rates of pay attained than amongst those who went against advice; moreover, 80 per cent. of the former subsequently expressed themselves as content with their work, but only 40 per cent. of the latter were able to make such a satisfactory report. Again, Rodger reports that whereas of the boys at Borstal who were advised by housemasters as to their vocation only 46 per cent. became grade A workers, 70 per cent. of those advised by experts reached that stage. A great deal of research has been done in this direction, for example by Anderberg and Westerbund on selection in textile industries, Dodge on traits

of successful clerical staffs, other writers on the subject being Macrae and Ibarrola.

Not only psychology, but psychopathology, too, has an important bearing upon the choice of professions. Such a choice is very often conditioned, in part at any rate, by unconscious tendencies, as when surgery is pursued for the outlet that it provides for a repressed sadism, or acting taken up because it can be made to express an exhibitionist trend. And these are only obvious examples; many more intricate connections between work and personal reaction tendencies can be brought to light. In addition, it might be possible, from a knowledge of an individual's psychopathology, to foretell that the taking up of a certain type of occupation, into which he is perhaps being urged by someone else, would stir up in him various buried urges that might provide a starting-point for the development of a neurosis. Indeed, the psychological analysis of both normal and abnormal individuals brings increasing proof of the close connection between repression of wishes on the one hand, and work as a symptomatic expression of these wishes on the other. By Adler, of course, many vocational choices would be explained as attempts at gaining power, or an avoiding of competition, or a shirking of responsibility.

Industrial Psychology

Under the auspices of the Industrial Health Research Board and the National Institute of Industrial Psychology, a great deal of work has been done on the psychological problems related to industry. The old-fashioned 'time' and 'movement' studies have been helpful in pointing out administrative improvements for the saving of time and labour, but it is only recently that the key to the whole problem—the stability of the workers—has received any attention. Many factors have to be taken into consideration, some of which are environmental, such as the influence of fatigue, of climate, of hours and the apportioning of hours of work, of the nature of the work, and so on, while others are more personal, this class consisting of home difficulties and personal conflicts. It is in connection with this last that psychopathology has to ally itself with psychology if any real progress is to be made. It may be argued that the personal conflicts of hundreds of workers in a large factory could hardly be made the subject of any profitable investigation, but it must be remembered that, just as a child is

largely at the mercy of the effect upon itself of its parents' conflicts, so do groups of workers exhibit mental disturbances due to the stresses of the people controlling them. The detailed investigation of the problems and difficulties affecting, say, a foreman's attitude towards the work and the workers may result in a widespread improvement of all those under his control. It is the old story that happy (that is, healthy) masters make happy servants.

Not only is the selection of employees a question in which psychology can be expected to exert an increasing influence, but also the problem of efficient salesmanship, one that has been specially studied by Dodge and Mitchell. The subject of advertising has come in for a good deal of attention from psychologists (e.g. Starch, Karslake), especially in America. Every appeal, to be successful, must have some relation to the current conflicts and tendencies of the community, and whereas emotional appeal and suggestive methods are best for the advertising of ' personal ' goods, it is the reasoned appeal that succeeds best in selling ' impersonal ' goods. Propaganda has been dealt with by Money-Kyrle, business ethics by Sharp and Fox, and high-speed continuous work by Philip. The question of accident proneness, an important subject in view of the fact that many accidents are very definitely psychologically determined, has been taken up by Chambers, as has the mental pathology of car drivers by Selling. The literature on this aspect of psychology is rapidly increasing, and includes the important and helpful works of Crane, Myers and Viteles, and those of Pear, Strong, Drever and Hollingworth, also Vernon.

CHAPTER XVIII

APPLIED PSYCHOPATHOLOGY—II

Social Theory

THE close relation between psychopathology and ethnology has already been noted. Freud, Jung, Rivers and Kempf, all lean heavily for support upon the information available concerning primitive society. On the other hand, Freud, Jones and their followers have applied their theories to the interpretation of societal evolution, the importance of the father—the Old Man of the Tribe—having been made the keynote by psycho-analysis to the understanding of many problems connected with the organization of groups. Even mass reactions, such as Socialism and Communism, have been explained (e.g. by Kolnai) in terms of a revolt against the father. Kolnai believes pure communism to be a partial regression to the mother with suspension of the father or authority principle. Anarchist communism goes farther and leads to a permanent abolition of all laws without the subsequent erection of new ones; its success has been due to its expressing the Œdipus-complex more fully and involving (in an implied reunion with the mother) the principle of common origin and therefore of universal brotherhood, with resumption of the infantile level where all personal autonomy is repudiated. In comparison, anarchist individualism is less psychologically satisfying, as it follows the Œdipus reaction only as far as the overthrow of the father and does not include regression to the lower levels of irresponsibility. It proclaims, not the bondage of brotherhood, but the freedom of Bolshevism and personal responsibility.

Daly has some interesting things to say on the subject of pre-human psychic evolution, while as an example of the whole-hearted application of psycho-analysis to this question might be quoted Money-Kyrle's theories.

Money-Kyrle believes the earliest human groups to have consisted of one male surrounded by a number of females, followed later by another kind of group (not unlike those described in monkeys by Zuckerman) where a number of males are found mixed up with the females, although only one—the Old Man of

the Tribe—functions as a male; the other males are forbidden the females of the group (the earliest form of incest taboo) and behave homosexually towards the Old Man. From this sex-repression there results, probably through defusion, a heavy increase in aggressiveness that, though it is usually directed towards the outside world, thereby assisting the survival of the group, may at times be redirected towards the group leader who is responsible for imposing taboos from which, however, he himself is exempt. It is not surprising, therefore, that the history of social evolution should, by this school, be closely related to that of the various manifestations of aggressive tendencies. These were at first directed (when not used in fighting for the defence of the group) against the group leader, then they were found applied—though combined with reverence and awe—to the totem of the tribe; at times they led to a destruction of that totem, followed by a feeling of freedom expressed in orgiastic and licentious festivities, then traditions reasserted their domination, guilt was experienced, and the people became good once more. Later still, this aggressiveness was directed against the rulers of theocratic states (as in Egypt) or priestly rulers (as in Assyria), when again festivities and orgies occurred in relation to the destruction (pictured this time rather than actual) of the ruling power, such as the festival of Sed celebrating the death of Pharaoh, followed by his rebirth; subsequently, this was replaced by a celebration of his 'rejuvenation'. The same reactions can be followed in the attitudes found towards the 'divine' Roman Emperors, and later still against the Kings that in Europe ruled by 'divine right'. Subsequent objects of aggression and hatred, still symbolic of the Old Man of the Tribe, were provided in the person of statesmen and dictators, followed in modern times by such economic and veiled figures as Co-operative Concerns in particular and Capitalism in general. All these successive objects of hate have shared a liberty, or an alleged liberty, in the matter of taboos and prohibitions, comparable to the privileges enjoyed by the tribal leader, totems and gods, in contrast to their repressed followers.

As illustrations of such exemptions from taboos can be mentioned the way in which primitive gods had dedicated to them virgins that were not to be used by the males of the clan; the Pharaohs were allowed to commit incest; Kings were entitled to contract polygamous unions, and so on. But as these objects of

awe, reverence and hate changed from group leader to totem, from tribal god to godly rulers, from divine emperors to kings, and finally from dictators to economic forces, there came a diminution in the respect and allegiance given to these objects, largely owing to the periodical waves of rationalistic scepticism that swept over the world, from early Greek philosophy to the atheism of Voltaire. The godly nature of the ruler (totem, priest, god, emperor or king) began to be less readily accepted so that the weakening awe and reverence ceased to protect the ruler effectively against the hatred and aggression which he inspired; hence, for instance, the death of Louis XVI, under whom the people were probably better off than they had been under Louis XIV. According to this view, then, aggressive tendencies have received serious reinforcements from erotic frustration, and from being originally egoistic in form aggression has gradually become sexual, then religious, then political and finally economic.

By some it has been said that the various stages of social evolution can be paralleled with phases of child development; thus animal totemism, these animals being first prohibited, then eaten, might represent an ' oral ' stage. Dell has advanced the theory that our present civilization can be regarded as the passing from a ' genital ' to a ' phallic ' stage. The difficulty here would seem to be that of explaining how a racial group has only reached a stage of development beyond which all the members of the group individually progress. If, of course, it is meant that these stages refer only to *unconscious* group reactions, then this opens out the interesting problem of the evolution and educability of unconscious and primitive processes that are presumably beyond the reach of the influence of reason and conscious experience.

As regards some of the characteristics of crowd psychology, Freud also explains these by applying his well-known theories. He regards the increase of suggestibility as a result—not a cause—of crowd formation, and the effect of ' contagion ' (Le Bon) may well be only secondary. The factor that he uses as a key to the whole situation is the community of interest (McDougall's ' focus of attention '), and this he derives from a common attitude towards some person or object outside the group; he instances the group leader as being such a person, prominent examples being the Army and the Church with their respective heads, the Chief-in-Command and Christ. This community of interest leads to a process of identification of the members of the group with each

other. Identification can occur (1) as part of an Œdipus situation, (2) as a substitute for object-love, and (3) owing to the sharing of a common emotional situation, this last being the one prominent in group formation. The original primal father (the old man of the tribe) enforced taboos sexual and otherwise on the tribe, hence the instincts-inhibited-in-their-aims that resulted formed the basis of the beginnings of tender feeling for the leader; and a re-edition of this situation is what is found in ordinary crowd psychology. If by any chance these tender feelings for the leader were suddenly disrupted and the corresponding libido set free, anxiety would appear and panic result (this being a very different explanation from McDougall's account of tender feeling and panic). The further growth of the crowd, or herd or group, may lead to each member further identifying himself with the leader, for example in the Church as compared with the Army. This leads to a substitution of the individual's super-ego by the person of the leader, which would explain the lack of critical faculty (the old super-ego being in abeyance), the suggestibility and the heightened emotion. This can be compared with a nearly similar process in hypnosis and—if mixed with direct libido as well as instincts-inhibited-in-their-aims—in the state of being in love; here one might find an explanation for the ' state of fascination comparable to hypnosis ' mentioned by Le Bon. In later stages still, we may get introjection of an idea in substitution for the super-ego, instead of a personal object, so that an abstract ideal may come to take the place of a concrete leader.

In any case, a great deal has been done by psycho-analysis towards establishing the general fact that civilization represents an unfinished resolution of tensions. Many of the more detailed theories of psycho-analysis on this subject, however, would be opposed by those ethnologists who deny the primal importance of the family and of the father. Jung, of course, would grant the father only that value and importance which attends his being used as a symbol; the problems of the family situation are not of much enduring importance in themselves, but they provide an expression of deeper tendencies that exist, in the collective unconscious, apart from any group organization. One reason recently adduced for man's cultural progress is the fact that infancy is much more prolonged in civilized man than in monkeys, or even in primitive man, this leading to a corresponding extension and elaboration of the super-ego. This view is supported by Róheim,

who links up with Klein's work and casts a doubt upon Freud's assumption of a primal horde.

The psychological aspects of statesmanship, politics and social reactions have been studied by Jung, and (from other viewpoints) by Lasswell, Stratton, Hayes, and Glover. Fagg writes on psycho-analysis and evolution, and de Saussure on Greek civilization. Benedict's approach is more from the angle of Gestalt, while more general accounts come from Bartlett and others. Mannheim writes on man and society in an age of reconstruction, Nathan on Nazism, and Baynes on the Jungian interpretation of the German character. All these excursions of psychopathology into sociology looked at one time like gradually turning the latter into a branch of the former, but there are signs that the study of society is coming back into its own as a form of human enquiry that exists in its own right.

Sociological Problems

All this intensive work in psychology and psychopathology must have its effect upon the way in which society deals with its practical problems, and it is not too much to hope that, under the influence of increasing knowledge, the restraining forces of habit and tradition may be sufficiently neutralized (though not completely abolished) to allow a rational and progressive outlook to be applied to these matters. Whatever view we may hold as to their actual origins, we must admit that tremendous forces of aggression and guilt have been gradually produced, and that these are threatening to undermine the very basis of our civilization and to destroy what we value most in that purposive, normative aspect of mental life that we term our culture.

How can the incidence of *warfare*, for example, ever diminish, with all the cruelty, hatred and aggression that fills the world to-day? Leagues of Nations are powerless, and no amount of talking and rationalization will be of the slightest good as long as these aggressive tendencies go on being produced in that hidden, subterranean factory that is the unconscious. The psychological factors entering into the persistence of wars, in spite of the avowed intention of nearly every statesman to avoid wars and of every citizen to work for peace, are very complex and they have occupied a prominent position in many recent studies; Dunlap, for instance, writes on the causes of war, as does Glover from the psycho-analytical angle, and Jung from his own. Jones

has contributed an essay on Quislingism, while the relation between frustration on the one hand and aggression on the other has been stressed by many. *Social unrest* and class discontent must largely be the product of unconscious factors, for in many ways man is infinitely better off now than he was a hundred years ago, yet he is not a whit happier. And, as suggested before, class hatred might well be an economic form of the aggression engendered by centuries of sexual repression.

The growth of *culture*, according to many thinkers, may well be connected with the question of sexual repression, for sex is alleged by some to lead, via repression and sublimation, to a growth of culture. This is supported by Unwin, who tries to show how, wherever sex control is marked, culture is high. Unfortunately Unwin seems to identify culture wholly with the presence of religious practices, and Money-Kyrle points out that in those societies listed by Unwin as possessed of a high degree of culture, so therein is cruelty widespread, a trait that is not very consistent with any broad view of cultural achievement. Brend also opposes Unwin's thesis, and Horney's views might lend support to the assertion that just as much as neurosis is a product of culture so is culture the product of neurosis. The view that culture is based on the length of time taken by the super-ego to develop has been mentioned earlier, and enough has been said to indicate the lines on which this important question is being approached.

The *social control of sex expression*, a problem ably reviewed from the historical angle by May, is consequently being widely discussed, a greater discipline being advocated by those who thereby hope to see a heightening of culture, while a relaxation is urged by Money-Kyrle and those who, like him, look upon sex taboos as having a warping and hindering influence upon progress. It would perhaps appear that it is not so much a question of either increasing or abolishing repression, but rather of a wise discrimination as to the point beyond which repression does more harm than good.

Perhaps one reason why it is so difficult to clarify our codes of sexual behaviour is that we do not sufficiently distinguish between the different purposes for which it can be used and, what is more, is being used. The biological purpose of sex expression is procreation, just as the biological purpose of drinking is the replenishing of the body's water supply. But just as drinking

may sometimes be resorted to as a selfish pleasure, apart from actual thirst, so can sex be used for the attainment of selfish pleasure, for recreation instead of procreation. Again, drinking may be made a means of being sociable, of establishing contact with one's fellows, just as sex too can come into play as part of a human relationship. It would seem that our behaviour need not be entirely conditioned by biological purpose only; so long as the primary functions are still performed, it would appear that additional purposes are to be expected in an animal such as man, who can think out and fashion for himself new aims beyond those of blind instinct. Yet we apply one set of rules to the sexual impulse, notwithstanding the fact that it can express such various needs as those for procreation (emphasis on children and the next generation), for recreation (emphasis on the self and its sensual pleasure) and for love (emphasis on a relation with another person). In any case, to expect that all these needs could always be fulfilled in one and the same permanent situation is not the same thing as merely hoping so. Moreover, the important effect of fixations in childhood upon later emotional relationships, to which we have so often referred before, renders such an expectation rather sanguine. That the three aspects of love and sex are not only a matter of theory but also of custom, even in primitive societies, is instanced in the recognition given in Samoa to the fact that a man sleeps with his wife, flirts with his cross-cousin and loves his sister.

Even if a permanent, legalized relationship be the ideal aimed at, it might still be admitted that this, like all other ideals, may not always be very successfully achieved, without, for all that, such failure entailing complete condemnation. Ideals, to be worth anything, must be high, and therefore difficult to attain, and surely a partly successful attempt should count as much on the one hand as the correspondingly partial failure which it implies on the other. Anyway, an increased tolerance is being urged in many quarters, though some authors (e.g. Ingram, and more especially Guyon) are inclined to go very far in their demands for a revision of our current codes, so far, indeed, that almost any form and extent of sex expression might be regarded as legitimate if not actually desirable.

Intimately linked with all this is the further question of the preservation of *the family* as a method of bringing up the next generation; but here also psychopathology has shown how all is

not well in the best of worlds. We have only to call to mind the innumerable ways—harmful, unhealthy ways—in which children will react to certain home influences and situations to see that a good deal could be said in favour of finding other means for assisting the socialization of developing minds. For one thing, however suitably and instinctively equipped parents may be for undertaking the bodily care of a child, what reason have we to suppose that they are equally well endowed for the training of a growing mind? It would seem more reasonable to assume that, knowing nothing whatever concerning the vagaries of their own minds, they are not particularly capable of understanding that of their child. At any rate, any further steps that might be taken in connection with child training are not likely to be too successful unless psychopathology be allowed to have a say in the matter. Other difficulties have to be faced, of course, such as the fact that hitherto the family has afforded woman's main means of livelihood; as long as she has few alternatives to living at a husband's expense 'for services rendered', our marriage and family arrangements will show little change.

Another example of a problem upon which psychopathology may shed much light is the age-long one of *prostitution*. Thus, psycho-analysis would say that the taboos enforced upon the sensual, as compared with the 'tender', feelings evinced by the child and adolescent towards his first loves (mother, sisters, etc.) sometimes lead to the idea of physical sex being linked up with that of inferior women; this may later result in a man being incapable of reassociating sex with love and respectability, so that he persists in consorting with prostitutes. As mentioned earlier, Wittels would explain a fondness for the company of loose women as a wish to externalize a feminine component. The psychology of the prostitute herself is in need of more consideration, if only because the old view that she was impelled to seek her mode of life by an inordinate sexual proclivity is rapidly being discarded. It seems much more likely that only indifference towards normal sex could render sex behaviour with all and sundry acceptable at all. Adler sees in the prostitute's choice of profession an expression of the will to power, and the rôle of economic distress and other factors adduced to account for such a choice are only other formulations of the self-regarding sentiment, rather than of the erotic one.

Homosexuality is also in urgent need of consideration. To

see these unfortunate individuals, clever and gifted as many of them are, sink lower and lower in their attempt to find a more tolerant environment, until they finally leave the stage with that gesture of despair, suicide, is bound to arouse wonder at the cruelty and lack of understanding that still locally persists in this matter. The causes of homosexuality are still under much discussion, some seeing the problem as one in endocrinology (Young, Rundlett), perhaps with special reference to the adrenals (Broster and others), while others view it from the angle of general constitution and heredity. Lang gives consideration to this, and Rosanoff advances the theory that there are several psychosexual types concerned in the emergence of homosexuality. Whether homosexuality be the result of any of the factors mentioned above, or whether it be really a persistence of an infantile stage of development—as upheld by psycho-analysis—or whether it should be explained on other theories such as those of Adler or of Weininger, it would still seem reasonable to advocate treatment rather than punishment, help rather than ostracism. Most countries, it is true, do not regard homosexuality as a crime, but in the British Isles and in America it is still dealt with as such, though strangely enough it is only a punishable offence in the case of males. Further, in considering this problem, we should distinguish between a mental attitude of homosexuality (an intense emotional attachment for a member of the same sex) and physical homosexual practices, and give due regard to the question whether the homosexuality in any given case is expressed mentally or physically, or both. Again, an insufficient distinction has been drawn in the past between homosexuality that excludes hetero-sexual behaviour, homosexuality that is resorted to as a substitute for more normal forms of gratification (*faute de mieux*), and the bisexual type in which attraction is equally felt towards both sexes. From the point of view of treatment and possible readjustment the last two might be expected to prove more hopeful.

A minor mental abnormality that yet is the cause of much legislation and unhappiness is the addiction to *drugs* and to *alcohol*. Here again the psychopathological factors that may account for these failings, the appreciation of which might help towards better treatment, are somewhat involved, but at least it is becoming increasingly realized that excessive indulgence in alcohol is itself the sign of a mental disability. Although many a

mental derangement is the result of alcoholism, yet the alcoholism is itself the consequence of antecedent mental stress; it is only one link in a chain of symptoms, each one leading, through an added disturbance, to the next. Indeed, all excess is pathological, and it is only an incident of our peculiar utilitarian outlook that praise should be given to the man who seeks refuge in such intense preoccupation with his business or professional activities that he consequently is able to shower an unusual share of worldly goods upon a wife and family whom he has hardly time to see and in whom he has little interest left, while opprobrium is cast upon the man who drowns his difficulties in the useless and objectionable habit of alcoholic intoxication. Both of them are abnormal in that they fly from certain aspects of life it is not natural to ignore, both evince the effects of psychological unbalance, and the productive results of the one form of escapism as compared with the anti-social aspects of the other should not blind us to the fact that both are pathological and indicative of internal conflicts that might equally well, under altered circumstances, lead to even more dramatic and harmful results. The interpretation of any given case of addiction depends largely upon the personal history, and it is difficult to generalize, but Radó has described how in drug addiction genital pleasure is cast aside for pharmacogenic pleasure, the ego developing a corresponding increase of anxiety until the drug elation can no longer conquer the misery of depression, and the way out may then consist of a flight into a free period, or suicide, or a psychosis.

The importance of the whole problem of *neurosis* to society needs no stressing; the very incidence of insanity, which is only a fraction of all mental disabilities, is enough to be thoroughly alarming. Especially as so many very mild disturbances go untreated and even unrecognized just because they are so frequent as to be almost usual, and yet they account for much distress and disharmony in the field of human relationships. Further, they may remain very unobtrusive for a long time and then suddenly result in acts of excessively disordered conduct, of actual violence, even self-destructive acts such as suicide.

It behoves society, therefore, to consider well the various suggestions put forward to account for neurosis not only as an individual problem but also in its group setting; social conditions generally—the pressure of environment stressed by Horney—are bound to have effect, and in this connection there may be much

significance in the suggestions of many observers of social policies in relation to mental illness; for instance, the findings of Williams. He concludes that neurosis in the U.S.S.R. has been definitely less than in the pre-revolution days, and the factors that he considers largely responsible for this decrease include the removal of sex taboos, the economic independence of women, the freedom from child-caring of mothers who do not wish to specialize in mothering, the diminution in the likelihood of children being brought up in a hothouse atmosphere of conflicting emotions, the supply to everyone of the necessities of life, and the absence of such envy as might arise were the unlimited acquisition of individual wealth permitted.

Returning for a moment to the more dramatic results of neurosis, one of these might be stressed as of peculiar importance to society, and that is *suicide*, which not only attains alarming proportions—100 per million, or approximately 14 in every 24 hours, in this country—but which claims a higher proportion of gifted, intelligent people than it does of inefficient and useless members of society. Here again psychopathology is needed before any understanding of the causes of suicide can be achieved. The numerous causes such as shock, grief, worry, poverty, etc., that are so often invoked to explain cases of suicide are one and all quite well withstood by countless people who show no desire to end their own lives; hence it is necessary to look for predisposing causes in order to account for the occurrence of suicide in some cases and not in others. Suicide would appear to have very complex roots. Pollack has given consideration to this problem, as have many other writers. Palmer finds suicide most frequent in people with an arrest of psycho-sexual development due to the unavailability of one or both parents as love objects; whereas some look upon it as an expression of the ' death instinct ' (see also Chapter XX), others would regard it as aggression turned inwards on to the incorporated object, that is, as a way of dealing with anxiety. Without attempting any detailed—and perhaps controversial—formulation of these causes, it may be said that, during the earlier periods of mental growth, excessive reactions of inferiority, aggression and guilt may be produced, which may persist in an unconscious but active form, being later added to again and again by all manner of influences. Suicide provides a ready solution for the difficulties created by these reactions. It relieves the sense of inferiority by achieving a means of escape

that incidentally symbolizes a return to the all-providing mother; it may be an aggressive act in that it inflicts trouble, disgrace or sorrow upon others, while among primitives is found the belief that the ghost of the suicide will haunt and persecute his enemies; and it satisfies the sense of guilt by signifying a self-punishment, an atonement, an expiation that eases the feeling of self-blame consequent upon the expression of repressed desires in dreams and phantasy, a feeling that receives considerable reinforcement from the unfortunate introduction into our morals of the crippling conception of sin and wickedness.

CHAPTER XIX

APPLIED PSYCHOPATHOLOGY—III

Morals and Mental Health

THE all too frequent occurrence of suicide has been referred to earlier, and it was suggested that the various and intricate mechanisms that may culminate in suicide as a solution of internal conflict are all the more likely in a society where so many forms of behaviour that are either unwise or else the product of illness become categorized as wicked and sinful. The old Græco-Roman ideal of 'seemliness' and health has been replaced by one of blind acceptance of taboo, so that the crime of unseemliness and the mishap of illness have been translated into the crime of wickedness.

It is at this point that it becomes no longer possible to keep mental health and morals apart. If it be true that reactions of aggression, fear and guilt make their appearance during the various stages of a development that is largely guided by the standards and prohibitions imposed by society, and if it is by these forces that adult behaviour is so often warped into anti-social acts, then all the vast numbers of psychopathic personalities in our midst, the neuroses and the psychoneuroses, insanity, suicide, and some forms of crime—all these must be regarded as casualties in our war on behalf of civilization. Hence, like all good generals, society must pause at times and ask itself whether the battles it is fighting are not too costly; according to the evidence, it may then have to restrict the scope of its objectives or modify its tactics so as to effect a reduction in its casualty lists. In other words, if mental ill health is the price we pay for our culture, then the fault may lie either with the culture that is being enforced, or with the manner of its enforcement, or with both—the only other possibility being that the human animal is actually incapable of any high degree of civilization.

To quote Freud's own words: "We can demonstrate with ease that what the world calls its code of morals demands more sacrifice than it is worth, and that its behaviour is neither dictated by honesty nor instituted with wisdom." Such a pro-

nouncement from one who affects no moral initiative in his treatment of patients will not only carry much weight with his own followers, but will seem of even greater importance to those therapists who, while largely adopting Freudian methods, also accept the moral responsibility preached by Stekel, Jung, Pfister, Adler and Prinzhorn.

Whereas at one time ethics were imbued with a certain degree of immutability as to standards and injunctions, the idea is now gaining ground that morals are after all only relative. Westermarck has ably upheld this point of view from the philosophical angle; more popular and simpler expositions have come from such as Russell, Fite, Joad and Stapledon, while the findings of psychopathology and ethnology seem to point in the same direction; in Lippmann's work, the influence of psycho-analysis on morals is much in evidence. Other writers, such as Davies and Hadfield, and some of the moral theologians (e.g. Boyd-Barrett, Hughes), have also discussed the bearing of psychopathology on codes of conduct, but their works have at times suffered from a lack of courage that has led to not facing the situation squarely. The Zürich school, of course, has a great deal to say on the question of morals, but this can hardly be adequately summarized, for the more abstruse aspects of Jung's psychology can only be properly appreciated from first-hand knowledge of his writings. That is one reason why, in many of the preceding sections, psycho-analysis has figured so prominently to the exclusion of analytical psychology.

In any case, whatever attempts are made in the direction of revising our morals in order to improve mental health, the difficulty encountered will largely be the one of defining mental health, as compared with the appearance of normality that an outward conforming to established rules of conduct must create. Perhaps happiness and adaptability are the keynotes to the diagnosis of mental health—it has to be 'diagnosed', for it is so uncommon—or else liberty in the broad sense may become the hall-mark of healthy man. Not liberty that comes from the refusal to recognize obligations, but an internal moral freedom that allows of full use being made of intelligent discrimination, young and feeble though this newly acquired human function may yet be, the kind of freedom mentioned by Wälder. Crichton-Millor would measure man's liberty in terms of his detachment from fear of consequences; that is, fear of frustration (self), fear

of retribution (society) and fear of extinction (future). A morality based on freedom and reason, rather than on compulsion and fear, must surely present better prospects of enduring without doing violence to either the personal needs or the social requirements of mankind. As Blacker points out, if instead of begging to be delivered from temptation we asked for and attempted to achieve a better ability for resisting temptation, our moral position would be far more secure.

But the only way to reach such a stage is to discover the sources and the nature of our weaknesses; and to the extent that these depend upon the presence of childhood fears and reactions that remain unconscious while often being so excessive, to that extent will it be the task of mental hygiene to help in the dissemination of a better understanding of mental reactions among the ranks of all who aim at shouldering their share of the responsibility for the future moulding of man's destiny. Here, Adler's psychology has already proved itself of considerable use in providing explanations which are easily understandable and which achieve a 'clearing of the ground'; psycho-analysis is doing its share in demonstrating some of the deeper motives of all behaviour, and Jung has appealed to the mystical or philosophically minded, while being still far too unintelligible for the masses.

That there is a growing interest in this very intricate problem of what might be termed 'healthy morality' will be patent to anyone who has kept in touch with the increasing literature on these matters, the best examples of collected contributions on modern problems being perhaps the excellent papers edited by Calverton and Schmalhausen under the titles of *Sex in Civilization* and *The New Generation.*

Analysis of Myths and Religions

Any discussion of ethics may possibly entail reference to the religious attitude towards morals, and it is interesting in this connection to note briefly the vast excursions made by psycho-analysis into the realm of the psychology of mystical beliefs. A good deal of the bearing of psycho-analysis on myths and primitive religions will have been gleaned from what has been said before, and a short summary is all that will be attempted now.

Religions and myths deal with all kinds of beliefs resulting

from man's concern with (1) the supernatural, involving feelings of fear, love, reverence and dependence, (2) death, (3) values and morality, and (4) helplessness and comfort. It requires little psychopathological insight to recognize the fact that every one of these must have a basis that is certainly emotional and partly unconscious. The parallel between obsessional acts (as an individual neurosis) and religious ritual (as a racial neurosis) was first drawn by Freud, these acts and rituals representing an attempt at getting control of the sensory world by means of the wish world; they are the equivalents of a childhood neurosis, and they all bear the stamp of the immature. Then Rank and Pfister entered the field, Jones discussed the identity of god and devil, while recent contributions have included those of Reik, Róheim, Levy, Lowenstein, Dukes, Money-Kyrle and de Leeuwe. A great deal of what psycho-analysis has contributed on symbolism and religion has been in part at least accepted by writers who approach the problem from the angle of religion itself, as an early example of which Swisher might be mentioned. Even evangelicanism has received attention (Mackenzie).

Briefly, it would appear that the original imposition of authority and restrictions led to aggression, to death-wishes, followed by feelings of guilt and then to the propitiation of the spirits of the dead, culminating in the religious symbolization of reconciliation. The growth of a need for survival was due to a fear of punishment and punitive impotence. The father was at first perfect. but as he gradually fell from grace, and as his failings and human frailties were increasingly recognized, the perfection and omnipotence were transferred to a higher Father. The earlier gods, however, were not too perfect, owing to their initial freedom from taboos; Jehovah was jealous, bad-tempered, envious and cruel, while the Greek gods practised seduction and incest, as did the divine Pharaohs. The Christians, on the other hand, have separated the good from the bad by keeping all the virtues for God and ascribing all the vices to the Devil. So that the various gods of history have represented a projection of all the aspects of the human psyche: the super-ego (moral codes), the ego (virtue and strength) and the id (libidinal admixture), this last being very evident in ancient, phallic, worships such as are profusely discussed in Wall's book. In other words, according to psycho-analysis, religion is a dramatization on a cosmic plane of the emotions, fears and longings arising out of the child's

reactions to its parents (Jones). It comes from emotional wishes for calming man's fears and strengthening his sense of power by emphasizing rules of conduct.

According to this view, then, religion is what man makes it, and the reason he has made it what it is must be sought in his psychopathology. Yet, even though religion—being the product of projection—holds no internal proof of its truth, the possibility cannot be denied that one or other of the various religions might coincide with what is really true; but this question does not come within the scope of psychology. Jung, Silberer and their school, however, while admitting the mechanisms that lead to the creation of religious beliefs, would not accept limitation by such a nothing-but-that type of explanation; behind the reductive interpretation Jung looks for the hermeneutic, teleological one. The ultimate origin of religion would lie, not in child-parent relationships themselves, but in the deeper, racial aspirations that are so readily symbolized by these relationships. To the spiritual he grants a definite reality and a purposive moral value, though his conception of this spiritual factor is vastly different from that found in any superstitious and man-bound religion which has created its gods in man's own imperfect and primitive image.

The spiritual is a force that Jung defines in general as that which opposes instinct; it has its roots in the collective unconscious, and its influence would be more direct and evident to-day had not man so over-differentiated his intellect that he has lost his natural relation to his unconscious and is no longer satisfied with the primitive symbolism he is tending to outgrow. Even the lawless groping so characteristic of the present age is regarded by Jung as not only an irresponsible welcoming of the most dangerous possibilities but also as an earnest effort at mitigating spiritual distress by bringing more meaning into life through unprejudiced experience.

Zilboorg, in a recent study, traces the idea of a soul as a mark of man's need for a belief in immortality and shows how, as long as it was identified with (or considered as part of) the mind, then the latter shared with the former a certain immunity from being regarded as faulty, deficient or even ill. This desire not to endanger the soul's reputation for perfection led to the emphasis that was placed on physical changes in the brain as causes of mental disorders, but the present century has seen other ways of keeping the idea of soul as clear from any imputation of imperfection as possible. Thus Adler goes even farther away from

mind and brain in his stressing of organ inferiority in general, Horney and her co-thinkers thrust the responsibility on to the environment, while Jung displaces the soul from the ordinary conscious and personal mind and re-erects it in the unconscious as something collective and extra-personal, almost as a ' presence ' that may be expressed through man while not being wholly of man.

Interpretation of Literature and Art

Religious and moral values are not the only ones that can be subjected to psychological analysis. Drama, literature, painting, sculpture and architecture, these are all unconsciously and emotionally conditioned, and all kinds of art can be ' interpreted ' in the same way that dreams and symptoms can.

In all art there are certain themes or patterns that keep on recurring, and here again the analysis of modern forms is assisted by an understanding of ancient ones. Drama repeatedly portrays situations and characters already made famous by history or mythology, though the names and appearances of the characters may be altered. We find certain heroes associated with typical human problems and ' complexes ', such as the son who slew his father (Œdipus) and the daughter who killed her mother (Electra); then we have the mother in love with her son (Phædra), the mother who hates her daughter as a rival (Medea), the father who kills his children (Heracles), and the wife who kills her husband in order to possess one of his male relatives (Clytemnestra). Several of these typical situations were represented in that much discussed play of O'Neill, *Mourning Becomes Electra.* Ambivalence towards the mother is another theme of importance; it occurs in Cinderella, but there the good is symbolized by the fairy and the bad by the stepmother.

The narcissistic type of woman is an important figure; she is the one who conquers rather than loves—according to Adler she exemplifies the extreme type of masculine protest—and is familiar to us as Cleopatra, Helen of Troy or Delilah; as Marcel Prevost's Manon Lescaut or Zola's Nana. The exhibitionist will be recognized in Maeterlink's Monna Vanna and Schnitzler's Fräulein Else; Faust, Lohengrin, and many Shakespearean characters have been explained on these lines, and examples abound in the psycho-analytical literature (for instance, in the writings of Jones, Jelliffe and Brink). Hamlet, for instance, represents a case of mother fixation, this fixation preventing him

from marrying Ophelia; at the same time, it led to death-wishes against his father, so that Hamlet was unable to undertake the avenging of a death for which he himself had unconsciously wished. The novels of Lawrence have been discussed by McCurdy, while Takeda writes on psycho-analysis and literature.

In the novel of to-day we find these themes recurring again and again, but they are easier to interpret owing to the fact that, as psychopathological knowledge spreads, more and more authors are deliberately describing 'analytical' types of people and situations, where they would otherwise have been blindly groping to express what they themselves barely realized consciously. The descriptions of women found in the earlier writings of Dane and Lawrence were, at the time, rather startling, but these have been followed by the excellent delineations of character, both normal and abnormal, given us by Huxley, Radclyffe Hall, Mannin and many other authors. In certain famous characters of fiction Jung would see a projection and personification of the anima, as in Rider Haggard's *She* and Benoit's Antinea in *L'Atlantide.*

Analysis can apply itself not only to the product of the writer but also to the writer himself, and many prominent writers, public men, philosophers and others have been thus scrutinized. Wordsworth is the subject of an analysis by Read, Baudelaire of one by Laforgue, and Verhaeren by Baudouin, other poets that have been similarly treated being Blake, Heine and Schiller. Dooley wrote on Emily Brontë, and even modern man has been unable to escape scrutiny, as when Viereck explains T. Roosevelt as a case of ambivalency, to say nothing of the numerous analyses of Hitler. More recent interpretations of prominent figures have included those of Caligula by Sachs, Plato by Kelsen, Brahms by Hitschman, Stevenson by Proudfit, Dostoevsky by Squires (also by Coleman), Poe by Bonaparte, Symons by Bragman, Joan of Arc by Money-Kyrle, Segantini by Abraham, de Maupassant and Strindberg by Coleman, Verlaine by Luniatschek, Cervantes by Leschmann, Tschaikowsky by Squires, and Ruskin by Wilenski.

In other forms of art, such as painting, drawing and architecture, we find many symbols that can be interpreted psychoanalytically, as they so often correspond to the external symbols associated with religions. They are often sexual, examples being the oval or circle, representing the female; the spear, or 'triad', or cross, standing for the male; the six-cornered star that

symbolizes conjugation — a triangle with apex above (male) superimposed upon a triangle with apex below (female)—and the fleur-de-lys of similar import—a circle (seen in profile) round the stem of a male triad. Excellent examples of these will be found in Inman's little book and in several psycho-analytical works. To these reductive interpretations the followers of Jung and Pfister would add the prospective one, and by them these artistic productions are explained as expressing the past, in virtue of that past itself providing a means of symbolizing the future—at least that future to which man has unconsciously aspired throughout the ages. Baudouin, Pfister and Heyer have contributed to this subject, Evarts has written on colour symbolism, while a comparison between art of the 'ultraistic' type and insanity has been made by Freednam.

Drawings in general and in schizophrenia have been studied by Maclay, Reitman, and of course by Jung and his followers, notably Baynes. Indeed, the interpretation of drawings occupies about as central a position in analytical psychology as the interpretation of dreams in psycho-analysis. Degenerate and psychotic art has received attention from C. Schneider, Schübe and Cowell, while Jones writes on paleolithic art; Kris, also Reik, have contributed to the study of caricature, the comic and laughter. Hevner gives an interesting account of an investigation into the affective value of sounds in poetry; nonsense sounds were used, arranged in various metres and cadences, and by reference to numbers of hearers classified in accordance with their being qualified as gay, sad, light, heavy, giving impression of movement, mystery, of drama, etc. A contribution that is of all the more value in that sounds, whether in poetry or in music, have escaped analysis and little is known of the symbolic value attached to the grouping of sounds of different pitch and timbre.

So far as it goes, therefore, analysis of art has been productive of many observations of interest and has shown how, in contrast to the scientist who deals with his psychic problems in terms of the external universe, the artist does so in terms of himself. Behind the question of understanding an artistic production or of liking it because it strikes an answering note in us, lies the broader problem of what determines the beauty or otherwise of any particular work of art; Rickman's conclusions on æsthetics are briefly that beauty is associated with the constructive or life tendencies and ugliness with destruction and death.

CHAPTER XX

THE CONCEPT OF THE EGO IN PSYCHIATRY

[In order to keep the foregoing account of the various approaches reasonably balanced and to avoid loading one aspect unduly in comparison with another, only the most general survey has been attempted. Many subjects and problems have been briefly touched upon that might well have repaid closer study, but three such topics will now receive more extended consideration in this and the next two chapters. The question of the use of the term ego in psychiatry will be one, and the introduction of the concept of a herd-instinct in psychopathological explanations another; herd-instinct theories were very popular after the last war and they are still invoked by some in this one. Character psychology, which was touched upon in Chapter XV, is illustrated in Chapter XXII by a description of one example of typology, namely that of Jung.]

The Ego in General Psychology

THE term ' ego ' is one without which psychological description cannot as a rule go very far; any reference to personality is likely to contain the word, and yet it is one about the usage of which many schools differ. It occurs, for instance, in the classical definition of insanity as ' a perversion of the ego '. A most delightful phrase, admirably concise, admirably vague, and therefore extremely popular. For what is it that can be perverted in insanity ? Well, we know of perversions of instincts and of emotions, perversions in the department of the will, of intellectual faculties, of moral sense; in fact, the word ' ego ' here becomes synonymous with the term ' mind ', and we are left very much where we were before. If, however, we turn to more accurate uses of the term ' ego ', we are confronted by a number of concepts belonging to different systems of psychology, and are further confused by the fact that two other terms, ' self ' and ' soul ', are used by some authors where others would speak of the ego.

It would be useless for us to attempt to consider all the possible definitions of an ego; but we might review a few points

concerning the main classes of definitions, paying particular attention to the modern psychological and psychiatric uses of the words ' ego ' and ' self '.

First we have the conceptions of some enduring and guiding individual psychic factor, such as a self or soul, the principal points being: (1) that this self has an innate sense of right and wrong; or, if not, then it has an innate desire for discriminating between right and wrong; and (2) the self or soul is of a spiritual and, maybe, transcendental nature in relation with some Supreme or Universal Being. Two groups of variations arise here according to whether this Being is conceived as the mere sum of all individual souls, and therefore a resultant; or is considered to be primary, expressing itself through, or being split up into, a number of smaller, individual units, and in this case a cause. The spiritual side appears again in such other systems as monadism, whether as originally expounded by Leibnitz, or recently by Wildon Carr, but we might more profitably pass on to give a glance to the classical schools, though a few examples only will have to suffice.

To some philosophers (e.g. Jacobi) the term ' ego ' was vague and unessential and generally identified with the content of consciousness, but the German school, of which Fichte was a representative, aimed at more accurate definitions. Fichte recognized in the self two distinct parts: (*a*) the finite ego, that ' core ' of the mind which we feel we can recognize by the use of an ' inner sense ' and of which we become aware in experience, that is, a lasting individual factor; and (*b*) the infinite—with some a transcendental—ego, which cannot be recognized in experience or by any inner sense, but which can be inferred on logical grounds, and is that which urges us towards the good and the true. In France, however, no such clear concepts were evident; for instance, Biran merely identifies the self with the ' doer ' or higher dynamic factor of the mind, expressing itself by means of the various mental functions. He ascribes to it individuality and endurance of identity, but, strangely enough, he would exclude from its manifestations all such things as involuntary moods and sensations—almost an anticipation of later psycho-analytical views.

On the other hand, the schools of associationists and of empirical psychologists—the latter essentially a British school—led by Hume, Hartley and later Mill, with Condillac in France, recognized no such thing as a self or ego. There may be an

appearance of unity or of individuality, but this is merely a chance resultant and is not to be taken as corresponding to reality. Herbart, the representative of the school in Germany, would differ slightly in admitting a soul, but merely as a creator of ideas, without committing himself to any statement concerning its ultimate nature. In England, it was only through the reaction originating with Reid and the Scotch school of philosophy that the idea of an ego came to the front again.

Turning now to more modern psychology we again find many divergent views. At one extreme we have the idea of a self—as a psychic factor—entirely repudiated by the behaviourist movement; at the other extreme are the various systems of self psychology, as representatives of which we might mention Prof. Mary Calkins, Prof. Margaret Washburn, Royce, and in this country Ward and Stout. An integral part of this psychology is the attempt to reconcile structuralism and functionalism; and the conception of a prime mover in the mind, a regulator and possessor of mental attributes; in other words, an embodied self such that we can speak of that self's consciousness, of its will or its emotions, a self ' whose ' are the ideas of the structuralist and the functions of the functionalist.

Coming now to William James, the pragmatist, we find that he discusses the question of a self rather closely. Following him, we might say that in so far as we can examine our own minds, we must recognize two distinct parts of the self: (*a*) We have all the various mental contents and processes that we can appreciate in retrospect, that we can examine, catalogue, and group in different ways and that we can say are ' ours '; and (*b*) there is that part of our mind which does the examining, the cataloguing and the grouping. In other words, our mind is partly observed, partly observer, partly known, partly knower, partly object, partly subject. The objective part that consists of our mind as ' known ' James calls the ' me ', corresponding in many ways to the empirical ego of older writers. (We are not concerned here with the physical and social implications of the ' me ', but only with its mental aspects.) The active, observing part he calls the ' I ', the pure ego of classical psychology, though not a transcendental one. This I, he says, is nothing more or less than a passing state of consciousness. It is true that we feel that our I of to-day is the same as our I of last week; there is an appearance of identity between the two, suggesting that the I of last week has endured

long enough to be the I of to-day; but this is only an appearance, and the identity of these two I's resides not in their being substantially the same, but simply in the fact that they are *functionally* alike. That is, they both can examine the same past of years ago, can both catalogue the same things as constituting an enduring me, and therefore they appear in retrospect as being one and the same. Actually, however, the I of any moment—in so far as it is just a passing state of consciousness—becomes the next moment capable of being observed in its turn and known by the following state of consciousness, and therefore ceases to be an I and becomes part of the me. In opposition to these views are many modern writers, such as Briffault, or in psychopathology, William Brown, who find in their systems of psychology no room at all for the concept of any pure ego, and seem to get along very well without it. We have to pass now to the psychopathological and psycho-analytical views concerning the ego; but before doing so let us mention two other lines of approach that might repay a casual glance.

First, there is a school of German psychologists headed by Hans Driesch, who divide the self in rather a novel way. The dynamic factor, the ' doer ' or ' deliberator ', is called by Driesch the soul-ego. The other part of the self is the I-ego; this latter is the passive receiving and experiencing mind, a sort of registering background comparable to the screen of the cinema on which pictures and images are cast, but which ' does ' nothing. This division into active and passive egos is but a recasting of the old description of mind under the two headings ' Conative ' and ' Cognitive '.

Then there is the evolutionary psychologist, who sees in the soul or self appearance rather than substance, and who invokes the principle of emergence to explain this. In psychopathology we might adduce as an example R. G. Gordon. The word ' emergent ' was first used in opposition to ' resultant ' by Lewes somewhere about 1870, but it was only as the result of the appearance of Prof. Alexander's book about the beginning of the last war and of the writings of such as Lloyd Morgan that the word came into general use. When in the course of evolution lower functions are integrated into the formation of a new and higher function, it may be that some of the characteristics of the higher function are predictable from a sufficient knowledge of the characteristics of the lower functions. In this case we call the

attributes of the higher functions 'resultants'. But if there appear in connection with this higher function qualities that cannot be predicted from a consideration of the simpler 'parts', then they are said to be 'emergents'. To give a simple analogy: However much you know concerning the properties of sodium and the properties of chlorine, yet you cannot from these alone foretell the properties of the resulting compound salt; the properties of salt would here be comparable to emergents. On these lines it has been argued that the soul or ego is only an appearance of unity, of individuality and of enduringness that is a characteristic of higher mental processes resulting from evolution, and that therefore the soul has no substantial existence and is merely a result of emergence. We should note a potent criticism here. Emergence is being made to depend on predictability; but this predictability may well vary with our state of knowledge, hence what is considered as an emergent now may be classed as a resultant in the years to come, when our knowledge will have increased.

The Ego in Psycho-analysis

The first fact we learnt about psycho-analysis was the apparent opposition between conscious and unconscious; it seems that mental contents would tend to be conscious and remain so, were it not for a 'censorship' that represses them and causes them to become unconscious. What reason is there, however, for certain things to be permissibly in the conscious when others are not? The answer is: on account of the presence of reality. In the growing child there is one psychic system, which represents the primitive trends; this system seeks outlets for these primitive tendencies, and it obeys the pleasure-pain principle; that is, it endeavours to secure immediate pleasure and to avoid pain. The human individual, however, is endowed with a perceptual consciousness which puts it in contact with environment. As a result a second psychic system grows up, moulded by education and environmental influence generally. This second system obeys the reality-principle and forces the organism to suppress the pleasure-pain principle, and to learn to forgo pleasure and to endure pain. This second system thus represents the aims of reason—the subjugation of instinctive needs to rational ends—and corresponds to the intellectual and balanced side of the personality. It is the function of this perceptual system to

harmonize the primitive and instinctive needs of the individual with the demands of external reality. So we might now replace the antithesis *conscious—unconscious* by the antithesis *pleasure-pain principle—reality principle.*

Now what qualitative distinction can we draw between the two parts of the human psyche that correspond to these two principles ?

The Libido.—The instinctual trends that are governed by the pleasure-pain principle have been grouped together under the heading ' libido ' and have generally been taken to constitute the sex instinct; it would seem, therefore, that the rational thinking side of the mind is constantly engaged in controlling or modifying the urge of the sex instinct, and that as a result such insoluble conflicts may arise as are liable to cause mental breakdown.

Considerable criticism and even more abuse have been levelled against this view. One of the possible lines of defence is familiar to us all and runs much like this: When Freud uses the term ' *sex* instinct ' or ' libido ', he does not use the word sex in its ordinary connotation. On the contrary, he would see in sex all that is generally included under the broader term ' love ', and more besides. But there is another line of argument, which is not so usually put forward but yet is important. When Freud uses the term ' sex *instinct* ' he does not use the word instinct in its ordinary connotation. On the contrary, he would see in an instinct an urge that is more fundamental, more general, than what is usually called an instinct.

Take for comparison the instincts described by McDougall. These instincts of his appear as inherent tendencies that show themselves in certain situations only, are limited and circumscribed in their application, and generally speaking seek immediate expression. Further, we note that they only come into play as a result of the perception of certain specific stimuli. We must not forget, however, that the organism may have ultimate instinctual goals as well as immediate ones, and any one of the latter may be a stage on the way to reaching any one of the former. The fighting instinct, for example, may come into play in a striving after an egoistic end, or a social end, or again a sexual end.

In connection with our reasoned goals, the same thing becomes apparent. An aim to achieve, say, a degree in medicine may be a student's ultimate goal, but in order to achieve his desire he will

have to formulate and realize many more minute and immediate ends, such as remembering a particular lecture, succeeding in a certain class examination, gaining a given scholarship, and so on. Hence our needs (be they instinctive or reasoned) can be grouped as immediate and ultimate, so that the achievement of the former becomes a step in the reaching of the latter.

Whereas McDougall's instincts are described in relation to immediate ends, Freud's are grouped according to their ultimate ends. Further, whereas instincts according to McDougall only come into play in circumstances providing specific stimuli, Freud associates with instinctual activity a state of tension, a condition of need urging the organism to expression even in absence of outside stimuli. In fact, stimuli will not only be reacted to when encountered, but will be actively sought as a result of instinctual urge. We see then why libido is made to include all instinctual trends that, in the primitive and primal state, tend *ultimately* to the continuation and reproduction of the species. We see that we must include not only the tendency to perform a mere act of reproduction (McDougall's sexual instinct), but also all the trends that produce or maintain sexual attraction and sexual differences. Reproduction depends on attraction between the sexes, and any possibility of attraction in its turn depends on sex differences, mental as well as physical.

In so far as those instincts that are related to sex attraction (in the broad sense of the word) are sensual instincts, and in so far as there is in the primitive state little sensuality not related to sex, one might be tempted to enlarge still further upon the Freudian formulation and say that the libido consists of *sensual* instincts, the passions if you like, all originally tending to ensure sex attractions and the propagation of the race, and primarily obeying the pleasure-pain principle in their mode of expression.

The Ego.—We must now say something about the other side of the personality, that which obeys the reality principle. This is the one that develops as the result of environmental influence and stress; it stands for sanity, reason and judgment in opposition to the sensual libido, even though it arose in the first place as a differentiation from the original sensual mass. It may be regarded as a modification of that part of the primitive instinctual personality that is placed in relation with environment by means of perceptual consciousness. This part of the self, which in its

adult form stands in such contrast to the libido, which has its own aims and its own instincts that are not libidinous, is that to which Freud has given the name ' ego '. According to Kempf it is the socialized portion of the personality.

But even now we cannot quite oppose ego to libido because much of the libido is expressed in its original form, and it is only part of it that becomes modified or even repressed; any conflict that arises is really between ego and that part of the libido that has to be repressed. And so we can now add to our original pairs of opposites, which were, you remember, *conscious—unconscious* and *pleasure-pain principle—reality principle*, a third pair, *ego —repressed libido.*

At this stage we might be tempted to believe—as once earlier workers in the field did believe—that all is now plain sailing; we can conceive the ego as consisting of those instincts which oppose and repress libido, and when the clash between the two becomes too violent sparks fly and cause the symptoms of a neurosis. At this point, however, some misguided people, not content with leaving well alone, came along wanting to know more about this ego, how it really worked, what were the ego instincts and what were their aims, etc. And so a search for ego instincts was instituted. At first a remarkable thing happened; the more the ego trends were analysed and subjected to scrutiny, the more elusive did they become; and it was felt that after all it might be a hopeless task to attempt to find and describe any instinct that was distinctly part of the ego. After a while, however, and as a result of what Freud himself admits was a purely speculative effort, some vague and ill-defined trends were unearthed and ascribed to the ego, chief among these being the repetition principle and the death wish. The former appears to be an innate tendency (well exemplified during the war) to go over and over again in imagination any situation that it has been difficult to master, as a sort of practice at overcoming certain problems; this is often expressed in certain repetition dreams, generally of an unpleasant nature, in which there is no evidence of wish-fulfilment. There has in fact come to be recognized a definite repetition compulsion, though some (e.g. Kubie) decide against it. Stärcke sees a tendency for every action to be repeated if not inhibited. The subject is still much under discussion, and Alexander has wisely pointed out that ' repetition ' may mean two very different things: (1) repetition in the process of ensuring a

status quo and (2) mechanically repeated unconscious patterns of conduct in answer to external stimuli.

The death wish, or death instinct, is not unlike Metchnikoff's ' instincte de la mort ' and is termed ' mortido ' by Federn and ' destrudo ' by Weiss. Normally it is projected towards the outer world as sadism and a wish for mastery, but it seldom appears in its pure form, owing to the death and life (Eros) instincts tending to be fused. In sublimation, however, defusion may occur, when sadism will now appear as aggressiveness. When an instinctual impulse is repressed, therefore, the libidinal component may give rise to symptoms, while the ' mortidinal ' component leads to an aggressiveness that will result in guilt or anxiety. The death instinct may, in certain pathological states such as melancholia, be turned back on to the self, giving rise to suicidal tendencies. Some consider that in melancholia there is holding sway in the super-ego a pure culture of this death instinct, though others do not regard suicide in this light at all, and associate it more with the question of guilt, the sense of guilt being, in their view, not the result but the cause of aggression being directed upon the self. Melancholics acknowledge the guilt, obsessional neurotics are harassed without knowing why (the ego and not the id being the object of the super-ego's rage), while hysterics are not harassed at all. There are of course great terminological difficulties in thus attempting to describe the interactions of these different mental elements, and there seems room for a revision of some of these terms. In any case it still seems unlikely that all the activities of the ego derive their necessary energy from, say, the death wish only; and we are forced to ask, ' Whence does the ego get bulk of its instinctual energy ?' But to answer this question we must look to some other aspects of psycho-analytic theory.

The libido is sexual in its original manifestations, or, as we have previously put it, sensual. But we know that, as a result of control over our primitive instincts, it is possible to divert an instinct from its sensual end, and to redirect the energy bound up in that instinct into some new, non-sensual channel. In fact, all sublimation consists of such a process. And when sensual instincts are thus diverted, they have been described as de-sexualized libido, or, as Freud has also called them, instincts-inhibited-in-their-aims. Some psychologists of recent days are inclined to substitute for desexualized libido the more general term ' interest '. Now we know from a general knowledge of

psycho-analysis how the primitive (sexual) libido may take the self as its object; that is, the physical aspect of the self can be loved for its own sake—primary narcissism. A regression to this stage can be recognized in the auto-erotic activities of dementia præcox. In the same way later on in life the desexualized libido can take as its object the psychic self or ego, and we get the adult form of self-interest. The earlier stage is more objectless; in the later one, on the other hand, the self is regarded as a definitely objective organized entity. And it is suggested that those instincts which, having been inhibited in their (outer, sensual) aims, have been turned back on to the ego, are just the ones that provide the necessary instinctual energy for the furtherance of ego needs and aims. It was here that Freud introduced the term ego-libido to distinguish these instincts from object-libido directed towards objects in the outside world.

As a result we have to make an important alteration in our conception of the ego. We must no longer consider it as being animated by ego-instincts as opposed to libidinous instincts, but as being provided with ego-instincts proper plus desensualized libido. In fact we must revise the last antithesis we established, that of *ego—repressed libido*, or at least add to it the further antithesis *ego instincts* (pure ego instincts plus desexualized libido)—*the rest of the libido*. Surprising as it may at first sight seem, that the ego should thus to a large extent be libidinous, yet after all, if the ego is developed gradually from the primary ' sensual mass ' under the influence of environmental education, then is it not naturally to be expected that the energies of the ego should equally be derived (though in an altered form) from the primitive sensual instincts (libido) ?

Freud goes as far as suggesting that it may be that between the leaving of a sexual object and the re-applying of interest to a new non-sexual aim there always occurs an intermediate stage of increased narcissism, as though instincts-inhibited-in-their-aims have first to be applied to the ego before they can be used in a new direction in the outside world.

Further, it would appear that even pure ego instincts, in their original, primitive form, also obey the pleasure-pain principle, and that they only later come to bow before the demands of reality. Although during the earlier psycho-analytic period it almost appeared as though all instincts obeying the pleasure-pain principle were libidinous, yet it was never denied that there

might be other, non-sexual, instincts; but the latter were little emphasized, largely owing to their comparative inaccessibility, and to the difficulty created by the fact that any analysis of the ego can only be carried out by means of the ego.

But we have not disposed of all the problems that arise in connection with the ego. Many questions have yet to be answered.

The Super-ego.—For instance we might ask, " If there is in the mind a special faculty of repression, symbolized by the term ' censorship ', where does it reside ? Is this function to be ascribed to ego ?" Well, although the ego does appear to be largely opposed to the libido, it is evidently not opposed to all libido, even in its sexual form, for much of the primitive libido is allowed to come forth undisguised. And if it discriminates between permissible and unpermissible forms of libido expression, does it borrow the criteria of discrimination from the environment, so to speak, at the time of deliberation, or is there in the mind a sort of inner sense of judgment, a still small voice that acts *autonomously* ? And if there is, should it also be sought for in the ego ? Now, an act of repression being obviously an unconscious act, it cannot take place as a result of deliberation in the conscious ego. Further, even ego needs may be denied satisfaction through repression just as libido needs may; so whatever critical factor there is responsible for instigating repression, it can neither be part of the ordinary ego, nor can it be conscious.

To provide a way out of the difficulty, a third aspect of mind has been postulated, one that is neither ego nor primitive libido, one that is unconscious, and corresponds to the old term ' censorship '; and this is what is now described as the ego ideal or super-ego. The term is meant to designate something that controls ego activities and decides what libido expressions are permissible, and super-ego must not be taken to mean part of the ego. The other name of ego ideal is less used now and is by some applied in a different and special sense. In so far as the super-ego is unconscious and is, therefore, not a mere conscious re-edition of herd standards, we should enquire into its probable mode of formation and its ultimate fate and function in the adult.

In early childhood there is erected in the unconscious a set of elementary standards that form the nucleus of the super-ego. At first these standards are merely such as will guide the organism in its search for pleasure and its avoidance of pain. Later, when

the parental influence is at its height, the various injunctions and prohibitions enforced upon the child get incorporated in the child's own super-ego; it is because the child possesses in itself a replica of the family standards that it is ultimately able to detach itself from parental influences; the super-ego thus replaces the rôle of parental authority. At this stage, the super-ego is hard, unbending, a severe taskmaster that controls the ego with just such rigidity as was evident in the parents' original tyranny over the child. Next, other additions are made to this unconscious super-ego, representative of newer influences substituted for parental relations, such as those emanating from other members of the family or from teachers, or resulting from hero-worship. But as more and more new material is incorporated within the super-ego, such a diversity of elements become represented in it, that it begins to lose its severity, its dogmatism, and its narrowness of outlook. Further, in relation to the super-ego, partly as an outgrowth from it, partly too under the teaching of education, a *conscious* rational set of standards is set up which may constitute a beginning of our reasoned sense of right and wrong. Finally, in order to allow the ethics of our conduct to become more directly the result of our intellectual judgment and less moulded by an *unconscious* factor, the super-ego weakens and finally disintegrates. It leaves behind perhaps some representative of the old infantile super-ego, but, more important than this, it splits up into three permanent elements. There is first that part that is allied to and has helped to mould the conscious ' conscience '. It is to this that some would now apply the term ' ego ideal '; such as Rickman for one. The next offspring of the super-ego is an impulse for authority and mastery which is now expressed towards the outside world (instead of towards the self) and becomes incorporated with the ego. And thirdly, we have a ' vigilant element ' that has for function the watching of the libido in order to warn the ego of any accumulation of libido that might lead to internal stress; when such pent-up accumulation or increase of instinctual needs occurs, this vigilant element produces a danger-signal to notify the ego, and this danger-signal is ' anxiety '.

The situation may be met by the ego in a variety of ways. The symptom—anxiety—may persist as a free-floating anxiety, often expressed in the physical sphere, too, as in anxiety neurosis. Or else the anxiety may be attached to various symbols in the

environment, giving rise to an anxiety hysteria. Again, the energy behind the anxiety may be converted into another form of energy, motor innervation, the starting-point for the motor symptoms of a conversion hysteria. The anxiety (a relic of the severity of the old super-ego, often the result of a fixation) may be abated by symbolic and placatory rituals to avoid evil and escape punishment, such as may be found in obsessional neurosis; prevent the compulsive acts and anxiety returns. Lastly, there is the way of the psychotic; anxiety is a sign of an inner danger (accumulation of unexpressed libido) as fear is an accompaniment of outer danger, but the organism cannot react to this inner and unconscious danger in the way usual in dealing with outer danger, that is, fight or flight. But when this inner situation is ' projected ' into the outside world as though it was there that the danger really lay, fear takes the place of anxiety, fight or flight can once more be resorted to. We find such reactions exemplified in delusional cases. Some writers enlarge the meaning of the term anxiety to include three distinct kinds, namely (*a*) objective, arising from reality, (*b*) neurotic, coming from the id and (*c*) normal, issuing from the super-ego.

The Ego and the Id.—Recently Freud has introduced yet another new term in psycho-analysis, namely, the ' id '. This id is the name given to that part of the psyche from which libido springs; it is the more primitive component of the mind and is unconscious, not because it has all been repressed—some may have been—but because a great deal of it has never been conscious. Of course in attempting to understand the meaning of all these terms we must not lose sight of the fact that these concepts—ego, super-ego, id—in no wise correspond to any substantial or spatial reality; the mind is not topographically arranged in compartments. These concepts are merely used to express *aspects* of the mind, modes of functioning that are not to be ascribed to separate ' pieces ' of the mind.

The id is therefore the primitive sensual self, activated by libido, and expressing itself in accordance with the pleasure-pain principle. A special part of the id, the outer part if you like, that is brought into relation with the outside world by means of perceptual consciousness becomes modified, learns to obey the reality principle, is mostly conscious and gradually becomes the ego.

The growth of the ego is thus gradual, and would appear

to take place in stages, corresponding to the stages in the growth of the sense of reality. At first there is no capacity for objectivity at all; the ego is purely a pleasure ego, seeking pleasant stimuli, and identifying itself with all that provides these stimuli. Next the ego becomes more capable of tolerating libido tension, it becomes more discriminating, but it also tends to repudiate unpleasant ideas by means of an act of repression. Finally, it becomes capable of accepting unpleasant ideas, though it does so by linking them up with other, attractive ideas, thereby ensuring a sort of consolation for the loss of self-esteem consequent upon such acceptance.

The ego is activated by a few vague instincts of its own, but derives its main energy from desensualized libido. It has its own needs and aims, and apart from furthering these it also has to adapt to the demands of reality outside the expression of libido trends coming from the id. Also, from the original id, but remaining largely unconscious, develops the super-ego; this is the ' censorship ' which criticizes the work of the ego, and decides whether the activities of the ego and the libidinous expressions arranged for by the ego are permissible. How the super-ego, developed in the unconscious from the id, and, as Freud says, a representative of the id, nevertheless in a way works against some of the expressions of the id, is one of the difficulties of psycho-analytic description; anyway, it would appear that the super-ego is the *unconscious* criterion of right and wrong that is responsible for repression, and the ego ideal is that contribution to the conscious ' conscience ' that comes from unconscious influences; whereas the rest of the conscience—probably the greater part of it—is developed from environment and rational education.

In conclusion, we see how the ego has to satisfy three masters. It must find satisfactory outlets for id impulses, and yet in doing this it must allow for the demands of outside reality. But it still has to placate the super-ego and satisfy the criteria embodied therein, in order not to suffer from the super-ego's critical tyranny. Hence, neurotic symptoms effect a compromise, in that they inflict punishment and satisfy the super-ego, they achieve power ' by illness ' and gratify the ego, and they symbolize libidinous satisfaction, thereby expressing the needs of the id.

If at any time, then, insoluble conflicts occur in the mind, the ego may behave in several different ways. Suppose the curbing

influence of reality and the urgency of the needs of the id cannot readily be harmonized one with the other, then the ego may either side with reality, repudiating the id and repressing it, taking the risk of its bursting forth again in other, more dangerous, forms, such as transference neuroses, or else it may side with the id and repudiate reality, replacing the latter, or at least modifying its appearance, by means of delusions and hallucinations. If, on the other hand, the ego comes into too severe a conflict with the super-ego, it may cringe and submit so completely that it will lose its power and such independence as it had, and will appear insignificant, miserable and weak, and as a result ideas of guilt and of unworthiness will be present, as in melancholia. (Other mechanisms enter here, such as the introjection of sadism and the identification with a love subject, but we cannot discuss these now.) Again, the ego may react to an over-critical super-ego by repudiating it completely; as a result the ego will feel free, omnipotent, and correspondingly elated, and a condition of mania will supervene. Of course other intra-psychic conflicts may occur, as between one trend and another, between two different modes of gratification, between love and hate, etc. Rickman classifies mental disorders into: (1) Transference neuroses, due to conflicts between ego and id—obsessional neurosis, conversion hysteria and anxiety hysteria; (2) Narcissistic neuroses, due to conflicts between ego and super-ego—manic-depressive psychoses and pathoneuroses; (3) Psychoses, due to a conflict between ego and reality—paranoia, paraphrenia and dementia præcox; (4) The Actual neuroses—anxiety neurosis, neurasthenia and hypochondria; and (5) Traumatic neuroses.

More complicated schemes than the above have been drawn up, notably by Glover, in which more factors are taken into account, such as the stages of libidinal and of ego development at which fixations or to which regressions may have occurred; also ambivalence and the problem of projection-introjection. Schilder has also made some contributions to this difficult problem, as has Stärcke.

The whole subject is still rather obscure, and it is extremely difficult to clarify these conceptual intricacies inherent in the attempt to describe processes that are so little accessible to ordinary forms of self-examination, but further knowledge is gradually being gained from the analysis of the narcissistic neuroses carried out by such as Clark and Zilboorg.

CHAPTER XXI

PSYCHOPATHOLOGY AND THE HERD-INSTINCT

INTRODUCTION

WHETHER one considers the structuralist schools or the functionalist schools one cannot help being struck by the barrenness of the older psychologies when applied to *living individuals*. '*Living*', because the whole of psychological theory appears so 'dead', so inanimate when equated with the living creatures whose conduct it is supposed to explain; '*Individuals*', because classical psychology is but an abstraction based upon average minds, an abstraction descriptive of just those characteristics and processes that are not individual but are, on the contrary, factors common to all. This studying of mind—whether as a sum of mental items or as a series of mental acts succeeding one another—is incapable of yielding an explanation of human conduct, nor can it account for anything more than the similarity between one mental life and another. But from our point of view as physicians, what we require is a system that will explain just those differences that occur, those discrepancies between 'individual' and 'average' conduct that are the starting-point for psychopathological enquiry. One may say that a great deal of useful ground was cleared by the older psychologies, but that no living, reacting and adjusting mind could profitably be viewed merely as a particular grouping of ideas or as a particular sequence of faculties being put into play. It required the addition of two new concepts—or shall we say a greater application of them?—to fertilize the accumulated dogmas of classical psychology.

(A) The first of these concepts was that of mental energy, based upon a more active, dynamic view of nature (including mind), leading to the various doctrines of instinct. It became increasingly recognized that no grouping of 'ideas' could ever have any compelling value, any more than the various 'faculties' could be brought into play, without, behind it all, some state of need, of tension, some urge definitely requiring expression.

(B) The other concept was the one embodying the idea of

struggle, of inner stress; in fact, of conflict, leading to the behaviour of the human organism being regarded as a resultant of conflicting trends rather than as an expression of single and successive urges. It is true that conflict had already been put forward by Herbart, but as occurring between ideas and not between instincts.

The subject of instinct, however, is one which provides a fruitful ground for controversy, and there are many views upon instinct that cannot easily be reconciled with each other. Further, in explaining the behaviour of Man as a social animal, it has frequently been the practice to invoke the Herd-instinct—the group tendency that is often described as coming into conflict with other instincts.

Now, if such an instinct be really one of the springs of human action, one of the factors accounting for normal conduct, then it may well be asked whether this instinct should not be brought into greater prominence than hitherto in the explanations offered for abnormal behaviour. If, on the other hand, the existence of this instinct be an assumption not sufficiently supported by evidence, then perhaps it should be denied even the small place accorded it, by some writers, in the production of mental derangement.

Instincts and Psychopathology

§ 1

It is a difficult task to assess the exact value of instincts in psychopathology, because such widely divergent views are held on the subject that the whole question bristles with difficulties. For one thing, it is only very recently that any serious attempt has been made to separate intuition from instinct; by some the two are regarded as distinct from one another, by others the former is made a derivative of the latter. Intuition was considered by Descartes as ' intelligent instinct '; that kind of instinct that is peculiar to thinking Man as compared with the instinct which he shares with the lower animals, and the same concept reappears in Driesch's psychology under the guise of entelechy. Montmasson terms it ' instinctive knowledge '; Jung defines intuition as ' instinctive apprehension '; Diblee calls it ' extra-conscious thinking ', further dividing it into primary intuition and intuition after reflection. Where instinct ends or becomes intuition, and the relation of the latter to intelligence, is very far from clear;

and though Burrow has recently tried to shed some light on the subject, it has been at the cost of creating further complications. All we can do at present is to realize the insecurity and confusion still to be found in the delineation of instinct, and be accordingly cautious in our acceptance of theories.

Some authors write of ' Instinct ', whereas others describe a number of separate ' instincts '. Similarly, those who emphasize the behaviour aspect may only recognize ' instinctive behaviour ' in general, or else they define and enumerate specific ' instinctive acts '. *Instinct,* which to Watson appears merely as a tendency to habit formation, has been defined by James as " the faculty of acting in such a way as to produce certain ends without foresight of the ends and without previous education in the performance ". Lloyd Morgan, however, describes *instinctive behaviour,* and says it comprises " those complex groups of co-ordinated acts which though they contribute to experience are on their first occurrence not determined by individual experience; which are adaptive, and tend to the well-being of the individual and the preservation of the race . . . which are similarly performed by all members of the group, but are subject to variation and subsequent modification ". With this definition many other authorities, e.g. Hobhouse, are in general agreement. The objection must be noted, however, that the words ' performed by all members of a group ' debar any classification of behaviour being applied to an isolated individual. Moreover, the definition gives prominence to the evaluation—always difficult—of what constitutes the well-being of an individual, and this must depend on the judgment of the observer, always a variable factor that should, if possible, be kept at a minimum.

Shand takes a purely motor view of instinct, without recognizing definite instinctive trends, and bases his description upon an enumeration and classification of such single acts as can be performed *instinctively.* Thorndike's approach is very similar. The actual cause of such acts is regarded by some (e.g. Rignano) as a biological memory or, following Semon, in the light of ' inherited engrams '.

§ 2

Of far greater importance in psychopathology, and made of much moment in several psychiatric textbooks, are the views of McDougall on instinct. He considers all instinctive activity as

due to a number of innate trends, *instincts*, which he groups according to the general nature of the acts to which they prompt and the result that is immediately achieved. He views these trends under three aspects: the cognitive or perceptual, involving the fact that each instinct is aroused by a particular kind of situation; the affective, relating to the specific emotion that is felt when each instinct is aroused; and the conative, in reference to the actions performed. In his scheme there are some twelve specified instincts that are the prime movers of behaviour, to which are added a few general 'innate tendencies' such as sympathy and suggestion.

More comprehensive still, though probably less psychologically sound, are the views of the French and allied schools, who multiply the number of instincts to an extreme degree. We might instance how Renan speaks of a political instinct, of an instinct of organization, of an instinct of copying; or Jastrow's assumption of a religious instinct, and so on. If specific affective feelings do accompany specific instincts, or are part of them, then recognition of such a large variety of instincts implies a correspondingly more numerous listing of emotions. It is true that language may be a source of difficulty for recognizing more emotions and that a richer vocabulary might assist finer shades of differences between emotions to be defined. Interestingly enough, the Fijians have eleven different words to describe all that we include under the one term 'fear'.

But to return to McDougall's form of instinct theories. In modern psychopathology instincts have been made considerable use of in connection with 'mental mechanisms'. It is common knowledge how an instinct is said to be (1) suppressed or (2) repressed; how further possible fates may befall an instinct, such as (3) regression, (4) canalization or (5) deflection. To these common ones notable additions have been suggested, for instance by Bovet, who recognizes (6) objectivation, satisfaction in witnessing an act instead of performing it, (7) subjectivation, becoming the object of action instead of the doer, as when sadism turns into masochism, and (8) platonization, consisting of the mental consideration of the desired act without actual performance of it. These conceptions have been largely accepted (though often under different names) by psychopathologists, as well as by several sociological writers. Graham Wallas, for example, lays some stress on 'baulked dispositions' leading to mental instability.

Among the instincts enumerated by McDougall is the herd-instinct, or 'instinct of gregariousness'. He conceives this merely as an urge towards grouping, adding that it reinforces other instincts; in his later works, however, an implication appears that he regards this instinct as tending not only towards the *formation* of groups, but also towards their *organization*. He does not, be it noted, go as far as committing himself to any statement about the forms of organization being instinctively determined or not. This instinct receives marked emphasis from McDougall, and yet when it comes to his theories of society, he seems to make but little use of it.

§ 3

Very different from McDougall's classification are the next schemes that we must consider; in contrast with the 'multiple instincts' view just described, these are characterized by the fewness of the instincts enumerated and the breadth of their delineation.

First we have the Freudians who regard all behaviour, instinctive or otherwise, as due to either (1) ego urge or (2) sex urge. And then there are some later writers, such as Tansley, who would add (3) herd urge. Here then we have human conduct accounted for by three main urges only, these urges being recognized according to their *ultimate* goal and results (not their *immediate*, as with McDougall) and subserving respectively the ego-needs, the sex-needs and the herd-needs. These instincts appear as very broad trends, compared with the narrow and limited instincts of McDougall, and might in contrast to the latter be said to be deferred in their ends. We must recognize that whereas some authors speak of these three urges as specific and indivisible trends, others have been inclined to regard them as capable of being split up into smaller components, as when Freud himself speaks of sexual *instincts* or of *instincts*-inhibited-in-their-aims.

Perhaps the best position to adopt is to conceive of McDougall's instincts not as constituting three main urges but as working in their service. For instance, the instinct of pugnacity is not part of any one of these three urges, but it may work for the furtherance of each in turn; at one moment it may be tending to an end that is ultimately egoistic, or it might be furthering sexual needs, or again it might be leading to social results. In other words, the

three primal needs of the race may enlist in turn any and every one of McDougall's instincts for their ultimate satisfaction.

A strong point in favour of this ' broad ' view is that it seems to give more meaning and fullness to human behaviour; it represents the organism as responding more *as a whole* than when its acts are split up into unitary parts and these ascribed to that or the other narrow instinct. The unfortunate fact is that some writers designate these broad trends by the same term ' instinct ' that is used by, say, the followers of McDougall to describe narrow tendencies. In fact, much of the misunderstanding of Freud has been due to what he calls sex being considered as a *narrow* instinct largely *dormant* when not aroused by specific stimuli and one leading *merely* to single acts of reproduction; whereas sex should, in accordance with Freud's views, be regarded as a *broad* urge, a state of *tension*, leading the individual to *seek* all situations in which he can behave in ways that *ultimately* lead to the preservation of the race.

It seems not unlikely that the regarding of instincts in the narrow way, as trends that become evident only in presence of specific stimuli and which in their absence remain presumably in a merely potential state, is what has led certain psychopathologists to emphasize the importance of *precipitating* causes in the production of mental derangement. Correspondingly, the viewing of instincts in a broad way, as urges leading to states of prolonged tension, states that require relief even in absence of related stimuli and therefore force their possessor to seek situations appropriate to an expression of such urges, is the reason why other psychopathologists have so stressed the *predisposing* cause in mental disorder.

Some criticisms of this broad classification into two or three fundamental urges, and a few constructive suggestions, will be offered in a later section; but first we have to consider, in order to dismiss them, two of the misleading and unjustifiable ways in which the term ' herd-instinct ' has been used by some authors.

§ 4

The term ' herd ' or ' gregarious ' has been applied not only to the *tendency towards gregariousness* but also to (*a*) those trends that are especially apt to show themselves *in gregariousness* and (*b*) those innate tendencies that *assist* or maintain gregariousness and the formation of groups, but which achieve this result, so to

speak, incidentally and which cannot be regarded as urging directly towards, or finding complete satisfaction in, such group formations. That is, trends that work to many more than the single end of producing a group.

The former trends (*a*) that show themselves in gregariousness have caused no little confusion in psychopathological description, and will be referred to again in connection with psychiatry. Those of group (*b*) have been variously classified by numerous authors who either fail to distinguish them sharply from the herd-instinct proper, or else are using terms in ways different from other writers. For instance, Rivers emphasizes the sociological importance of suggestion, and he recognizes it under three aspects: cognitive, affective, and conative. Thus we may have suggestion of an idea, of an emotion, or of an action. McDougall, however, reserves ' suggestion ' for the cognitive aspect only and terms the suggestion of emotions ' sympathy ', and the suggestion of actions ' imitation '. (The sympathy here referred to is of course ' primitive passive sympathy ', not the active sympathy which—according to Bain—leads directly to altruism.) Again, the French schools (e.g. Tarde) use the word ' imitation ' like Rivers does ' suggestion ', in order to cover the ' suggestion ', the ' sympathy ' and the ' imitation ' of McDougall. As an example of another description of *gregarious instincts* in this misleading sense we might quote Bartlett's classification into comradeship, assertiveness, submissiveness, construction and conservation, this last being probably another name for Murphy's ' fatigue ' factor. All these are trends that may be *useful* to gregariousness, or may *result from* gregariousness, but they do not tend *towards* gregariousness.

After this short mention of the ways in which we shall not use the terms ' herd-instinct ' or ' gregarious instinct ', we should now proceed to enumerate the attitudes of representative psychiatrists towards this instinct, noting the extent to which it has been admitted by them, and the possible application they may have made of it in psychopathology; paying regard also to the way in which they conceive it, as narrow or broad, immediate or deferred.

§ 5

The first thing we notice when reading standard books on psychiatry and psychopathology is the divergence of the views expressed. Coupled with this are two other outstanding features,

namely, the tendency to ignore the more precise definitions of scientific psychology, and the failure to avoid too facile generalizations.

It is evidently impossible for us to discuss in detail all the various schools of psychiatry, and we shall have to rest content with a brief survey of the views enunciated by some of the representative authors.

Störring in his lectures on mental pathology hardly refers to instincts at all, nor does Kraepelin, or Marr; Mott seems to have little use for them. Pierce is equally silent, and Ross in his book on neuroses does not define or stress instincts any more than Hollingworth does. Koffka, the leading representative of the Gestalt school, regards instincts as mere chain reflexes; he emphasizes more particularly the kind of instinctive movements performed, and speaks of such instincts as those of cleanliness, adornment, walking, etc. Köhler has much the same outlook.

Cole, in his textbook, describes two instincts, calling them the desire to live and the desire to reproduce: a rather unfortunate terminology, as the idea of reproduction is not, in the primitive mind, necessarily associated with sex. (See Malinowski.) Craig follows Cole closely, but mentions ' derived instincts '. Saxby speaks of impulses and inherited engrams rather than of instincts, and denies the presence of gregariousness. Macnamara refers to instinct in general and specifies instinctive actions, but not separate instincts. Hamilton's book on psychopathology treats of responses rather from the behaviouristic standpoint, adopts very objective methods, and links on to Kempf's attempts at the autonomic ' interpretations of urges and major cravings.

The Freudian school of course recognizes two groups, the ego-instinct and the sexual instinct. Trotter agrees but adds a herd-instinct in a broad sense. He regards the herd-instinct as the equivalent of Freud's ' censorship ' (though as a matter of fact it more nearly corresponds to the ' reality principle '). Trotter's herd-instinct is really comparable to Wallas's ' social heritage ', and it cannot be too emphatically pointed out that Trotter is not describing an actual instinct at all, but a ' community attitude '. As Gordon says, this instinct is not made to appear, in this view, as a *reaction of the individual, caused by instinct,* for it merely designates the *influence of the community on the individual.* This point seems to have been missed by many (e.g. Crichton-Miller) who have incorporated Trotter's views with their own.

Hart follows Trotter to some extent, and is inclined to trace some forms of mental disorder to the repression of the so-called herd-instinct.

Rivers agrees with the three-fold scheme, and does make use of the herd-instinct in his psychopathology, as when he describes shell-shock as a compromise between ego- and herd-instincts. Sometimes, however, he uses instead of the herd-instinct the concept of duty as conflicting with the ego trend, considering the sense of duty as a direct outcome of the herd-instinct. This is evidently very debatable.

Tansley gives extensive consideration to the herd-instinct, still in the broad sense, and includes the tendency to gregariousness within it. Suggestibility he ascribes to this tendency towards gregariousness and not—as has been done by others—to the *fact* of gregariousness. He evinces the old fault of arguing from animals direct to Man. The affective side of this instinct, he thinks, is the feeling of desire to be one with the herd: surely a highly organized concept to be associated with a primitive instinct. He goes on to ascribe the discomfort consequent upon disobeying moral law as due to disobeying the promptings of the herd-instinct, and he describes conflicts occurring between ego and herd, and between sex and herd, tendencies. Further criticism, however, is unnecessary in view of the way he uses the term herd-complex as interchangeable with herd-instinct, and in a sense that would agree neither with Freud's nor with Jung's definitions of a complex.

McCurdy resembles Rivers in his views but recognizes narrow instincts too, grouping them under the three heads of ego, sex and herd. Stanford Read mentions a herd-instinct in a vague way; but Culpin, whose viewpoint is very similar to Read's, goes rather farther, and definitely postulates a weak herd-instinct as a factor in the production of neuroses.

Stoddart recognizes four main instincts: self-nutrition, self-preservation, sex and herd. This last he describes as " a desire to comply with the wishes and customs of society ", and says it is a true instinct. According to this definition it might be anything except a true instinct; the same criticism might be made here, as we suggested earlier, against the describing of primitive trends in terms of highly evolved concepts; the simple savage has no instinct to obey society, and the obedience which he evinces may well be due to self-preservation against the punishment for

disobedience. It is to this herd-instinct that Stoddart ascribes such traits as modesty and shame.

Norman admits three main urges in a broad way, but makes no further use of them except to describe what he calls their perversions. In his book on psychotherapy, Yellowlees uses the term herd-instinct much as Trotter does for describing the influence of the herd on the individual, and is therefore in a safe position for showing how most instincts may conflict with the herd one.[1] Henderson and Gillespie recognize the instincts of nutrition and of sex, and as the ' so-called herd-instinct ' certain later *acquired* reactions. Their application of it is very limited.

Cobb admits Freud in parts, and mentions conflicts of instincts, but without strictly defining them. Mainly does he emphasize the affective force of fear, anger, resentment and jealousy, approaching the narrow conception of multiple instincts. Platt recognizes several instincts and, incidentally, nearly accepts a group-mind, though regarding it as subhuman rather than superhuman in its characteristics. This is probably due to his following Le Bon's description of casual crowds and not of organized groups.

Bleuler is very vague: he enumerates impulses of nutrition, sex, self-preservation, and he adds an ' ethical ' one; but these seem to play little or no rôle in his psychopathology. Baudouin accepts a few instincts, including a ' social ' instinct, but after that says no more about them and follows Freud and Jung in a haphazard way. Jung recognizes patterns of behaviour, but traces all innate tendencies ultimately back to a mental libido corresponding in many ways with Bergson's ' élan vital '. Adler explains all conduct as an expression of one main urge, the ' masculine protest '.

Prideaux speaks vaguely of a herd-instinct and ascribes to it the formation of a ' social ideal ' which seems in a sense to approximate to the ' ego-ideal ' of psycho-analysis. Brown recognizes instincts of self-preservation, self-assertion, sex, herd, and enquiry; but at times he implies that these might after all be mere class names and be therefore subdivisible. The herd-instinct he defines as the " urge to act in accordance and harmony with one's fellows "; a rather complex tendency, we should say, difficult

[1] Dr. Yellowlees himself, however, admits that his use of the term herd-instinct may be inaccurate, but that he kept to this broad meaning in order to avoid too much complication in his description of mental mechanisms.

to conceive apart from an already advanced conceptual stage of intelligence. Hamblin Smith follows both Freud and McDougall, tries to combine them together and speaks of conflicts between herd-instinct and sex-instinct; though he is careful to point out that the presence of a herd-instinct does not necessarily imply an inborn desire to adapt oneself to society.

Amongst those favouring the 'multiple instinct' view we have of course McDougall, who traces neuroses to the repression of fear, with such as Hadfield and Roback. This last, however, suggests that McDougall's list of instincts should be still further subdivided into narrower trends again. Sands and Blanchard describe eight instincts, including a vague herd-instinct, but their account of them is scanty. Morton Prince seems to follow McDougall fairly closely, although denying the inevitability of the 'specific perceptual inlet' factor, and utilizes the idea of conflict between instincts. In connection with instinctive activity, he holds that energy is discharged in three directions: (*a*) to cause the motor movements that will bring about satisfaction of the instinct, (*b*) to initiate visceral changes essential to preparation for action, and (*c*) to inhibit all other contrary instincts.

Sidis disagrees with McDougall and, after emphasizing the importance of fear, does not seem to have much to say about other emotions or instincts, at least not in a systematic manner. Mary Calkins, the self-psychologist, agrees with McDougall only in part, refusing to regard as essential the three 'aspects' of instincts; moreover, she inclines to considering acts rather than tendencies. Yet Stout, another self-psychologist, follows McDougall more closely.

Core inclines to Jung in reducing the appearance of separate instincts to a primary vital urge. Conflict he regards not as occurring between one emotional trend and another, but as specifically due to environment. (But is this really very different?) He includes under the term herd-instinct gregariousness plus a tendency to 'conform and submit', though later on he separates them again and describes this tendency to submit as merely *associated* with the herd-instinct. Of the three groups of functional disorders described by him (retrogressive, progressive, and instinct distortion), the last is conditioned by the workings of the herd-instinct. Generally, he seems to combine Freud with McDougall in an obscure manner.

From this necessarily scanty survey of the position of the herd-instinct in psychiatry we cannot help being impressed by the diversity of views expressed and the vagueness of conception. And so it becomes incumbent upon us to indicate some of the criticisms that can be directed against the grounds for believing at all in some kind of herd-instinct.

The Herd-Instinct and the Group-Mind

§ 1

First let us consider the broad concept of a herd-instinct, one of the three primal urges. The current way of regarding this instinct is in the light of a dynamic force, an active trend to be recognized by the *ultimate* results that it achieves. There is a growing tendency to include McDougall's narrow instincts as working within these three main trends. As a result, the position is reached of having to recognize urges within urges, all of which—the including and the included—are still designated by the one term ' instinct '. This way of regarding the matter is obscure and confusing, yet we cannot seek much help from other authors, as this difficulty seems to have been shirked by most of those who have thus tried to combine broad and narrow trends in the same scheme. This difficulty may in part be due to attempting to fuse together ready-made bodies of theories rather than reconsidering the whole position.

It would seem not at all unlikely that these broad urges only appear as such when we view human conduct in certain ways. How do we know that, because we are pleased, for purposes of exposition, to classify the needs and aims of the race as ego, sex and herd, therefore there must be in every individual three corresponding unitary principles moulding his acts into these three forms? Might not this be an artifact of analysis? It surely does not follow that if we care to divide up conduct and its goals on any other basis—say an æsthetic one—and hit upon a twelve-fold classification, then there must correspondingly be twelve unitary principles responsible for all behaviour. One cannot help being keenly aware, albeit in absence of much consideration of this point by standard writers, that these three ' urges ' may be more the products of our methods and our preferences than the symbols of the true facts.

If the concept of ' broad ' urges is to be retained at all, the

following considerations might help towards a solution. If there be a force responsible for the fact that conduct is mainly egoistic, sexual or social, need it be a force that itself urges *towards* egoistic, sexual or social results ? Might it not be a more passive, guiding kind of force, one that regulates or moulds the combinations of such instinctive activities as are postulated by McDougall ? If so, it might be compared to the railway pointsman who controls the setting of the lines, these exerting a resisting, passive force on the train in guiding it to a station, but without contributing in any way to the motive power of the engine. What is wanted is some term descriptive of a ' configurational ' factor responsible for the three main patterns of conduct, a factor that accounts for form in its complex teleological meaning, and which moulds rather than urges, guides rather than propels; in fact, a factor accounting for the ' orientation ' of complex instinctive activity. It seems pretty certain that such a factor cannot in itself be innate; it must be moulded by environment, *education* and all that makes up personal experience.

Even though it be a personal acquisition it may be regarded as a racial factor that has grown and expanded during the course of civilization owing to education embodying the fruits of accumulated laws and customs. Owing to its very comprehensive nature it must be more than a mere complex; moreover, even though it may in part exert its influence unconsciously, yet it can never be entirely repressed, and therefore should not be termed a complex, this being usually reserved for a repressed and unconscious constellation of ideas and sentiments. If coining a new word is to be avoided, this factor—and we are speaking of the factor responsible for the socialization of conduct—might be called a ' system ', using the word in the sense given it by Morton Prince, namely as an integration of sentiments and complexes.

We have next to consider the narrow way, McDougall's way, of regarding the herd-instinct. But McDougall's views are so widely quoted and have attained such an assured position in a section of English textbooks, that it might be well to discuss them in their general aspect as well as in respect of the herd-instinct. For this instinct of gregariousness is only a small item in a large scheme and it cannot carry much conviction if the general scheme, of which it is a part, is itself insecurely founded.

§ 2

What is McDougall's definition of an instinct? "An inherited or innate psycho-physical disposition which determines its possessor to perceive and pay attention to objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in a particular manner, or at least to experience an impulse to such action."

We may now indicate briefly the more vulnerable points at which McDougall's theories can be attacked.

The division of all innate action into three parts—perceptual, affective, conative—is not always possible. It often rests on insufficient knowledge, and it leads to a straining of facts in order to fit them in a scheme.

McDougall's definition is sometimes regarded (e.g. by Diblee) as inadequate, because it does not emphasize the immediateness and completeness so characteristic of true instinctive behaviour.

Even after listing a large number of instincts, to act as prime movers, McDougall still finds it necessary to postulate further 'innate tendencies' such as suggestion and sympathy. Drever, and others, would be inclined to group these with instincts. It has also been urged that even these instincts are but class names for groups of reactions and do not stand for unitary principles.

This assumption of so many different instincts often only provides the wrong kind of explanation, and is really only description over again. To use the instance given by Ginsberg: "To say that submission is due to a submissive instinct and negative self-feeling is like saying that people are submissive because they are submissive." This fault has been well described by Dunlap when he says: "You notice a certain common characteristic in a group of phenomena; then you abstract that characteristic, give it a name, and explain the phenomena by saying they are manifestations of that abstraction you have named."

The response of an organism to its environment, in so far as it is an instinctive response, is a response *as a whole*. As Thouless points out, behaviour caused by this or that limited and single instinct appears rather as a partial response, involving only parts of the entire organism.

Without endorsing the French schools, who are so apt to regard emotion as pathological, Shand emphasizes the fact that in many cases of normal instinctive action no emotion is present,

or at least it is not subjectively perceived. McDougall himself is far from clear when, after postulating that every instinct involves an " explicitly recognized emotion ", he then goes on to say that such an emotion is always present " whether or not it be clearly realized at the time ". Shand, Drever, Rivers and others have shown how emotion is most marked when instinctive action is inhibited, and how, as long as the response can proceed freely, all attention is concentrated on the ' doing ', emotion being little if at all in evidence. Bianchi points out how emotion is especially aroused by an element of ' surprise '. Woodworth is therefore inclined to regard emotion as an internal response in the nature of a reaction preparatory to renewed or altered efforts in relation to the environment. This is much Watson's view too.

For Shand, emotion is therefore not part of an instinct at all, though it may accompany it, and is something separate which, like instinct, has a dynamic urge of its own, and is not fixed, but on the contrary is very variable both as regards its ends and its means.

Even when emotion does occur, it would not appear that these emotions and responses are related to each other, in pairs, in quite the fixed manner that McDougall describes. For instance, a particular emotion may be found linked to different instincts. Similarly, a particular emotion may be associated with different responses, as when fear leads to silence, screams, immobility, shivering or flight. And in higher animals the whole process is subject to the complicating influence of intelligence, making it still more difficult of analysis.

Again, very different emotions may be found with a particular instinctive act. For example, flight may be accompanied by anger, joy, surprise, playfulness, etc. And to reply that we are here describing several reactions only one of which is really flight —the kind associated with fear—would mean that we must therefore fall back on the emotional content in order to qualify the act. This must needs confuse the issue and beg the whole question.

In reviewing McDougall's theories on instinct, one cannot help feeling that he has stretched the facts to an extreme degree, and almost manufactured instincts and emotions in order to fit his theory. Thus he sometimes postulates some vague and ill-defined emotion in order to fit a well-recognized instinct. At other times he assumes the presence of an instinct that is far from

clear-cut and evident, in order to account for a specific emotion. In any case, certain authors have maintained (e.g. Harlow and Stagner) that emotions are not innate at all, but definitely conditioned responses. The behaviourists, from their child studies, might admit a few innate emotions, such as love, fear and rage, but all others they would regard as acquired.

The very definitions and criteria that McDougall himself lays down are not always complied with in his further descriptions. For instance, he regards pugnacity as an instinct; yet it does not appear to have any specific perceptual inlet; on the contrary it is aroused—he says—when other instincts are inhibited.

As regards emotions, he recognizes three varieties, primary, secondary and derived. These last do not seem to be associated with any particular instinct in preference to any other—a serious objection to calling them emotions. Joy, regret, remorse, etc., he states, are definite emotions dependent upon the working of any strong impulse ' under certain conditions '. If those felt reactions were truly emotions in accordance with his earlier conceptions we should expect the ' certain conditions ' to be of a perceptual order, or due to a conflict of instincts, or to variations in the extent or feasibility of response. But no, these ' conditions ' turn out to be of a purely ideational order, such as abstract judgment, and it can well be asked whether these feelings are emotions. We know, of course, how Shand's sentiments are organized on just such an ideational basis, and in fact these derived emotions seem to stand in much the same relation to sentiments as primary emotions do to instincts. For want of a better term, these ' derived emotions ' might be designated as ' sentiment-tones '.

Finally, it may be argued that conduct in civilized man is not interpretable in terms of single primitive instincts only, for it is not merely a balance of inherited trends, but a new synthesis involving new adaptations. " Very little in man is pure instinct; heredity operates in interaction with capacity to assimilate, foresee and control " (Hobhouse).

§ 3

From this brief summary of criticisms, we see how McDougall's general theory of instinct is not always agreed to by other authors, and how there are, in places, serious difficulties encountered in reconciling his views with the facts. Now, many of the arguments

outlined against his general theory apply equally well to his instinct of gregariousness; but a few more specific points might be touched upon as affecting the herd-instinct in particular, this instinct which impels to gregariousness, in which McDougall almost implies a trend towards organization, and which, he says, enhances other instincts.

As regards its affective aspect, there seems to be no specific emotion associated with the gregarious instinct, unless perhaps it be loneliness. Many psychologists, however, have shown how this is too complex to be regarded as a primary emotion. It is strange, too, how this emotion, picked for linking with the instinct of gregariousness, is just the one that shows itself in *absence* of gregariousness, when the animal is not being gregarious; this is quite opposed to what obtains in the rest of McDougall's scheme of instincts, and we are still left to ask what is the emotion associated with the functioning—as compared with the lack of functioning—of this instinct.

As observed in the human subject, any satisfaction at being one of a crowd may well be due to factors other than the urge of a primitive instinct. For instance, it might be due to desire for recreation, the wish for collecting or imparting news, for self-preservation, for an outlet for exhibitionism, finding an anodyne for troubles and worries, and many other, we might say, intelligent reasons, rather than an instinctive impulse. In fact, a sort of intellectual pragmatism will acount for herding, the individual seeking the herd from conscious appreciation of the advantages that can thereby be gained. Moreover, any satisfaction in herding appears enhanced through the operation of sympathy. Much of the evidence upon which a herd-instinct rests has been culled from animals—as have many theories concerning instinct—but is it safe to argue that acts performed by animals under the influence of an instinct cannot, in man, be due to a multitude of other causes? Men sometimes behave just like animals would, though for very different reasons.

Actually this question is intimately bound up with the very complex problem of intelligence, which is said to grow within the sphere of instinct, decreasing the rigidity and fixity of instinctive activity. Thouless describes intelligence as instinct modified by thought, and allows that even the tendency to reason may also be innate. According to Myers, behaviour as seen from within, subjectively, is purposive and intelligent; but when viewed from

without, objectively, it is mechanistic and instinctive. Although some deem it advisable, if only for methodological reasons, to consider instinct and intelligence as two separate principles, yet it must be remembered how the one leads to the other. Stout describes how, after the first stage of perception and instinct activity, comes the second stage, the one of free ideas, with memory and anticipation, leading to desire (Hobhouse's impulse qualified by an idea '). In fact, the stage of sentiments, where new ends appear, distinct from the ends of primitive instinct.

And to oppose intelligence to instinct too sharply creates further difficulties. For instance, Reid, though agreeing with Drever that all (in man) instinctive behaviour includes intelligent factors, yet denies that all intelligent behaviour includes instinctive ones. Stout, too, maintains that intelligent behaviour need not be instinctively determined. The problem now is that there appears no motive force behind intelligent action once the instinctive urges have been denied co-operation; unless, of course, we fall back as a last resort upon the reduction of all action to a mere ' élan vital '. In any case, it is the growth of intelligence, with the modification of ends and means, and the conception of these means, that vitiates any arguing from lower animals directly to higher man.

We need go no farther in order to see how the herd-instinct, as conceived by McDougall, raises many complex questions, becomes a fruitful source of controversy, and leads to no irrefutable conclusions.

§ 4

Before turning to the discussion of certain other considerations in connection with theories of society, we should examine another concept sometimes invoked in social psychology, one with which the theory of a herd-instinct seems to me—though not, apparently, to others—to be indissolubly linked. I am referring to the possibility of there being such a thing as a ' group-mind '. The presence of a group-mind would go far towards answering the question: " To what end a herd-instinct ?" or, to put it more comprehensively, " For what purpose are herds formed through the agency of a herd-instinct ?"

Of course the idea of purpose has not always been well received in science, at least not in mechanistic science. It has, it is true,

had its place in biology, physiology, etc., as when we say that the larynx and its motor mechanisms are ' for the purpose ' of speech, or that the heart valves are ' for the purpose ' of preventing regurgitation, but this is only purpose viewed in retrospect; it is only a way of describing ' useful results ', without committing ourselves as to how much these results may be accidental or sought after; or how much they may have determined the events leading up to them.

If we define purpose as the " stable forms and configurations towards which differential stresses tend ", we may, as we have said, regard it as mere result that has just ' happened that way '; but we may, too, view it as a teleological factor that has definite influence upon the course of an evolution that many authors are now beginning to regard as purposive (e.g. Noble); for, as Joad reminds us, whichever way we regard development of any kind it implies advance, advance implies direction, direction implies a goal, and therefore purpose. Even when not explicitly enunciated, the concept of purpose appears clearly implied in some of the recent accounts of that ' emergence ' which was first stressed by Alexander, Broad and their followers. Purpose may act as efficient cause in the sense that it conditions the stages preceding its achievement; in other words, a particular emergent is to be regarded as conditioning the processes leading up to its emergence, just as much as being an inevitable result mechanistically determined. Adopting such a teleological view of Nature, we would describe an instinct not only as tending towards an end but also as being itself partly determined by that end. Following Lloyd Morgan, we might term it *purposeful*, implying thereby a foresight and a preconception of ends and means on the part of some ' agent ', retaining the word *purposive* to denote a mechanistic achievement of an end not previously determined.

Applying this to our subject, we would ask: " What is the goal towards which the herd-instinct tends? What result—or emergent—is to be found that will be a sufficient justification or ' condition ' for a herd-instinct ?" And if we do not recognize a group-mind, that can thus be regarded as the goal, then our herd-instinct becomes but a barren and aimless thing, with no end to determine it. Or, if we admit a group-mind, then we cannot consider it as a mere incidental or side product of evolution, as a result that might just as well not have happened; it must have been led up to; some urge must be postulated tending toward

the emergence of a group-mind; an urge that ' seeks ' (we cannot avoid anthropomorphic expressions here) after some such higher end. And a herd-instinct is what is required to supply the answer.

So it seems that these two concepts, herd-instinct and group-mind, must to some extent stand or fall together, and any refutation of either will do much towards weakening the position of the other.

§ 5

The idea of the integration of human minds into something higher and all-inclusive is new neither in religion nor in philosophy, whether that higher something be conceived as a unitary super-human mind or merely as an extra-individual psychic continuum. From the standpoint of modern biology it is of more recent application, though it was suggested by Bernard as far back as 1911, in his valuable but little-known work. A higher super-mind gives meaning to evolution when regarded from the point of view of progress. Without embarking upon the problem of life and value, we may remind ourselves how we are generally agreed that any step forward in evolution is to be considered a ' good ' step; any development that leads to psychical progress and integration can usually be described as an improvement with positive value.

Bernard divides all evolution into five periods, the change from each to the next being dependent on a process of aggregation such as occurred, for example, when unicellular organisms first colonized to produce multicellular animals. And in the fifth period in which man emerges, it is no longer possible to conceive of any possible *physical* aggregation that could continue the line of progress any farther; and so we are left with the possibility of *psychical* aggregation instead. The urge towards such aggregation, making another evolutionary step possible, would be our ' instinct of gregariousness '. The new organism thus produced must therefore be a psychic one that transcends its component units, and so must be something such as we might call a ' super-mind '.

If this super-mind be considered as nothing more than the sum of human minds, with no new faculties or characteristics of its own, then it is a concept of little value and application, and is not in keeping with present views of emergent evolution. More usually, however, it is regarded as a definite emergent, with new

qualities that distinguish it from the individual minds composing it. Let us be clear, though, as to what we mean by 'new'; the word 'new' as applied to emergence can only mean that sudden qualities have come to light which were potentially present in the constituent parts; for as Joad says: "New . . . must mean that our perception of the qualities is new, not the qualities themselves. If not, then these qualities must have existed separate from the constituents of the compound, and so to speak *in vacuo* in the universe, i.e. as 'objects for thought' even if not 'objects of thought'."

Who is to say, however, what degree—qualitative or quantitative—of aggregational synthesis is necessary for the emergence of such a super-mind? If such aggregation be regarded as anything short of the whole human race, then at what point does this mind first show itself? If, on the other hand, it be made to include all humanity, then it becomes very much more comprehensive than what social psychologists have been pleased to call a group-mind.

But whichever way we regard the matter, the fact must be faced that we are inevitably limited in our speculations, our views are doomed to incompleteness and inaccuracy, simply because the part can never conceive of the transcendental whole. No human mind is capable of apprehending a super-mind of which it is only an infinitesimal part; it can never have direct cognizance of it, even though it may speculate about it. We are like the little consciousnesses that older writers used to postulate as occurring in single parts of the brain, and which were naturally and inherently unable to appreciate the consciousness of the whole brain.

Moreover, just because this super-mind is an emergent, it must therefore be possessed of new qualities and powers foreign to a human mind. This would prevent us at the onset from knowing those very facts about a super-mind that distinguish it as a super-mind. Just as primitive man fashioned his gods after his own image, so are we left to conceive of a super-mind after the model of a single human mind, unable to ascribe to it anything more than intensified and glorified human characteristics. This, however, need not debar us from thoughtful consideration of the subject, within the limits of our understanding, and in spite of the difficulties which we must, in the very nature of things, encounter.

§ 6

Lazarus has described the aim of Folk-psychology as being " to discover the laws that come into operation whenever the many live and act "—he does not add ' think '— " as one ", and the postulation of a group-mind to account for some of these laws is an integral part of McDougall's theories. Just as he sees evidence for a gregarious instinct in the fact that " we behave differently towards those of our own group " (Giddings), so does he deduce a group-mind from the way each unit displays properties and modes of reaction not present if he remains outside the group. He is supported in this by some other authors, for example Barker, but on the other hand such writers as Allport, Ginsberg, McIver, and Urwick have totally rejected his theories.

This group-mind seems to be conceived by him as occupying a position intermediate between two extremes. The very emphasis he places on the way that men act and think in groups differently from how they act and think alone shows that he does not quite consider a group-mind as a mere addition of units, as a sum of individual minds; he implies, more than once, the presence of some emergent. On the other hand, in so far as he calls it a group-mind and bases its presence on the formation of groups (and not *one* group), he is considering it as falling very far short of a synthesis of *all* human minds; it is in fact composed only of *some-at-a-time* human minds.

A serious difficulty at once arises here. When a man is a member of several groups, are we to presume that his mind contributes to the formation of several group-minds ? Surely this would lead to such ' overlapping ' of group-minds that they could no longer have attributed to them that sharpness of individuality usually associated with our idea of a mind; they could no longer be distinguished from one another without creating a very artificial separation. Of course, McDougall's description is so much based on his study of organized groups that fundamental factors are very apt to be obscured altogether.

The idea of a group-mind is not, however, peculiarly McDougall's; it is to be found in much earlier writings, though under a different label. We have Rousseau's theory of ' general Will ', and Hegel's ' Folk Soul '—a kind of mystical group-mind. A reflection of this is present in Savigny; and again in the ' Collective Consciousness ' of Renan, where Hegel's absolute is implied.

Hartmann and Fechner also give consideration to this subject. Espinas, Durkheim, and Wundt put forth the same idea but call it ' Social Consciousness ', and they too conceive it as something that is shared by the whole group.

An important fallacy of the French school must be noticed here, one due to a tendency towards making too sweeping and facile generalizations. When Durkheim (even without admitting a group-mind in McDougall's sense) describes his ' collective representations ' as aggregates of ' individual representations ', compounded into something transcendental, superior, and definitely more good and aware of good, he is confusing *process* with *content*, just as Espinas does in the case of his ' social consciousness '. What is really shared is not the process of being conscious or aware, but the contents of such awareness, the ideas and images present in consciousness. ' Sharing ' here is in relation to similarity, not identity. When a man is having the same meal as another he may be said to be sharing it, but it does not mean that they are both chewing the same morsels of food; it is merely that they are partaking of similar food at the same time. It is interesting to note how the French writers—who are so near to McDougall in some of their views—reject the group-mind in which he believes, while subscribing to a social consciousness which he denies.

More recently, Heard has upheld a theory of possible group consciousness. He correlates man's progress with stages in the evolution of consciousness, beginning with the lowest form, the co-conscious stage. At first there is a kind of primitive collective consciousness, that later gives way to a more personal one; as it does so, however, possibilities of conflict occur because (and this would link on to Jung's views) as long as the mental functions of the primitive are collective there can be no clash between self and society. Heard then envisages a return to the collective in the form of a future super-consciousness. Here again, however, there seems a risk of encountering the same fallacy as was mentioned earlier in connection with the French school.

A good deal of the difficulty found in trying to harmonize these different views lies in confusion of terms and paucity of concepts for mental processes. Anyway, it does not seem likely that a super-mind can, at present, be postulated with enough security to provide much support for believing in any marked instinct leading up to it.

In any case let us not be misled into seeing in the fact that some of the reactions of groups cannot be described except in terms of mind, an argument for a collective psyche. For as Ginsberg says, " True, we can only discuss society in terms of mind, but it no more follows that society is, or has, a mind than that a house that consists of bricks is itself a brick."

§ 7

Our next step must be to give brief consideration to some theories of society, pointing out in particular those phenomena that are so peculiar to group life, so unlike what is found in the case of the isolated individual, that they have probably been markedly influential in the acceptance by psychologists of such new concepts as herd-instincts and group-minds. Further, we should see how those phenomena have nevertheless been explained by some investigators without having recourse to any new principle outside individual psychology.

The whole question of group mentality is intimately bound up in the broader one of mental evolution. The customs of primitive tribes have always been a rich field of enquiry when elucidating the genesis of early social organization; but the use to which the material thus obtained has been put has varied considerably in different schools. We need only refer to the controversy that is even now active between the ' psychological ' and the ' diffusion' theories. According to some, myths and rituals have arisen all the world over as the products of primitive mind, wherever that mind was to be found. Elliot Smith, however, maintains that these have really originated in one portion of the world only, probably from the pre-dynastic Egyptians, and have thence been spread to the other nations of the earth by the wandering tribes that Perry called the Children of the Sun. The other races have merely accepted and perhaps modified the beliefs and customs thus brought to them. This view makes one wonder, nevertheless, why these pre-dynastic Egyptians should have been the only one apparently capable of evolving myths, to the exclusion of all other races.

A rather different explanation of ritual has been offered by Beck. According to him it is not only a question of handing down custom, but it involves a reinterpretation. Dogmas and religions are reinterpretations of once useful practices that have survived from mere inertia (compare the ' conservation ' of

Bartlett and the 'fatigue' of Murphy). The social merging consequent upon the sharing of primitive ritual has been regarded as the starting-point for organized social feeling and for the subsequent uniting for the common good. McCurdy, however, believes this merging for common good to have its prototype in the harmonious principle which he attributes to the fore-conscious and which he calls a 'unity complex'; this would account for the 'quest of unity' of Murphy, and—as a beginning of a social urge—would in part correspond to Hobhouse's 'effort at synthesis'.

It is evident, then, that there are to be found in social psychology many suggestive points of view that, if sufficiently justified, might well do away with any need for a herd-instinct or group-mind. The multiplicity of lines of approach and methods of description, however, has made it very difficult to assess some of these theories at their proper value. The various accounts given of society have differed from one another largely owing to the bias of their authors and the particular fields they have investigated. For example, some describe more particularly primitive hordes, Le Bon's work is based on what one might call casual crowds, Malinowski has concentrated on early organized tribes, and McDougall on later, more specialized groups. In addition, the several views offered are each apt to be heavily coloured under the influence of some pet principle or tendency emphasized by individual authors. Thus 'telepathy' is all-important in Newlands' views, whereas in France and Germany we find 'collective consciousness' being constantly invoked.

McDougall makes remarkably little use of the very instinct of gregariousness which he has himself postulated, and most of social feeling he regards as derived from the parental instinct, just as altruism is. This early appearance of other-regarding trends is much stressed by him. But it is very debatable how much one is justified in making any sharp distinction between self-regarding and other-regarding instincts when discussing the genesis of primitive groups, for this distinction seems to belong exclusively to a fairly advanced stage of development, and we must not ascribe to the primitive mind concepts that we have ourselves fashioned when viewing history in retrospect. Compared with McDougall, Trotter lays much more stress on the herd-instinct, regarding it in the 'broad' way; but, as was mentioned before, he spoils his theory by including in his description of this

instinct a host of reactions that are really the result of the influence of the community on the individual.

Imitation has been postulated as an instinct by Baldwin, but he is not followed in this by the English school, who see in imitation too many diverse mental processes to call it an instinct. The French, however, do so regard it, and nearly all their interpretations of society have been in terms of their suggestion-imitation theories; instance, Bagehot, Tarde. Psychopathologists too have emphasized the importance of suggestion, e.g. Rivers, and Sidis, who says that " suggestibility is the cement of the herd ". (Suggestibility, not, we note, the herd-instinct.) " Man is a social animal, but he is so because he is suggestible." Suggestibility is specially in evidence in casual crowds that have come together under the influence of two factors: (1) Community of focus of attention, (2) Homogeneity of constitution and sentiment. The results accruing from such casual crowd formation have been taken by some as affording indirect support to herd-instinct and group-mind theories, and are as follows: (*a*) Heightening of emotion, (*b*) freedom from restraint and loss of feeling of personal responsibility, especially in respect of the ' lower ' emotions, (*c*) a lowering of intelligence in order to include the standards of the lowest units of the group, (*d*) a state of fascination resembling hypnosis (Le Bon), (*e*) increased suggestibility, probably due to an overflow of energy from an excitement that is not always able to find direct outlet. McDougall shows how there may be a reappearance of individual and moral traits in the group, but not until it has become highly organized under the influence of such factors as continuity of existence of the group, understanding of the nature and purpose of the group, rivalry with other groups, production of traditions, and need for specialization within the group.

Another characteristic of group life that distinguishes its psychology—in the undeveloped state—from that of the individual is the one that has been so stressed by Lévy-Brühl, namely the phenomenon of ' participation mystique '. This is a tendency for the savage to ascribe identity between objects or people that are similar or else enter into close relationship with one another; and this in conjunction with ' collective representations ' he uses as the basis of his exposition of what he calls primitive mentality. Unfortunately he regards the primitive mind as of a peculiar kind, essentially different from the civilized mind, not even to be

compared with that of a growing child of to-day. Most English authors, e.g. Murphy, Marett, McDougall, disagree with him and regard the mind of the savage merely as an *undeveloped* mind, not one that is inherently ' different ' from modern minds. Especially do they dissociate themselves from Lévy-Brühl when he goes as far as ascribing to the savage a clear realization of these two phenomena, comparable to our conception of them.

It will be seen that little support for a group-mind can be found here. To account for the formation of societies many theories have been put forward, the more important being (1) intellectual — reason has shown the need for a group; (2) gregariousness—an instinct to herd; (3) habituation—individuals born in a group tend to want its continuation; (4) sex and parenthood—the group is but an extension of the family; (5) fear—feeling of weakness in isolation; (6) self-assertion and submission—interplay between two instincts. In none of these is there any definite need for invoking a group-mind theory.

§ 8

The Freudian school have already made valiant attempts at explaining some of the customs of primitive society along psycho-analytical lines. The laws of taboo and totemism have been traced back to a series of reactions that are typical of family life, reactions based on a universal Œdipus-complex and revolt against the father. This is exemplified by the attitude of the members of the tribe towards the Old Man of the tribe, and Freud follows these family patterns into the more complex organizations of tribal life. Ritual has also been explained psycho-analytically, principally by Freud, Jones and Reik.

As regards modern sociology, some writers have found support for the group-mind theory in such collective reactions as communism and anarchism, whereas these are regarded by other authors as kinds of ' racial neuroses '. Here again the psycho-analysts have not been slow in coming forward to explain the facts on their own hypotheses. For instance, Kolnai traces the rise of socialistic thought to the same old revolt against the father, while Money-Kyrle believes socialistic aggression to be the result of sexual repression. The psychology of crowds and groups is explained by Freud as being based on an identification of individuals with one another (e.g. in Church and Army) owing to the sharing of a common emotional situation.

Coming now to the ' collective representations ' of Lévy-Brühl, found also in Piaget: these are ideas of objects to which traditional sentiments of awe, fear, respect, etc., have been attached. They might be explained as having their roots in that part of the unconscious that Jung calls impersonal or collective. In so far as they are not wholly determined by education but appear to be bound up in the heredity of the race, they would correspond to his ' archetypes '. And because they are general and collective, they are possessed of a kind of universal validity that is responded to by all, even when unconsciously apprehended. When viewed from the angle of inherited engrams these would come within the scope of Rignano's ' biological memory '. The phenomenon of ' participation mystique ' might also be explained on much the same grounds, especially as the archaic ' thought-images ' of the collective unconscious naturally tend to symbolic and mystical expression.

As regards the ' moral consciousness ' emphasized by Rashdall and the growth of conscience generally, Green points out that " no individual can make a conscience for himself; he always needs a society to make it for him "; nevertheless, the appearance of conscience can be regarded as a reaction of the self to environment, reinforced by influences from the super-ego that is formed during childhood and in family life. The psycho-analysts would therefore not regard a conscience as a phenomenon limited to *group organization* as such, but merely as due to the fact that no individual ever leads a completely isolated life. Followers of Jung would seek in the collective unconscious for the roots of conscience.

The ' telepathy ' of Newlands might seem capable of explanation to those who are inclined to accept Geley's theories. He develops a view of libido or energy which he calls dynamo-psychism, comparable in a way to Schopenhauer's ' will ', but not—like it—the necessary cause of all things. He believes that the unconscious is not only the seat of lower functions but of higher ones too, and that these latter are purposively kept in abeyance during normal life. We forget, he thinks, because too much knowledge would do away with the spurring to further efforts so necessary to adaptation; a sense of limitation and deficiency is required before progress can be sought after and achieved. When such limitations are removed through their becoming unnecessary, as for example in impending death, then

new faculties appear from the unconscious, the mind becomes much clearer, sharper and more all-knowing, and as a result certain manifestations such as clairvoyance and telepathy may occur.

Summary and Conclusions

To summarize this short discussion: we have seen how complex is the subject of instinct generally and how the views concerning it are still widely divergent. There are many ways of conceiving a herd-instinct, and in psychopathological works this instinct is ill-defined, vaguely described and variously applied—if applied at all. On examining more closely the grounds for believing in a herd-instinct, it appears that they are not always secure, either as regards the herd-instinct itself or in respect of the general theory of which it is a part. Further, this concept is linked to that of a group-mind, and not only is the evidence for the latter controversial too, but the very limitations of human understanding vitiate our speculations concerning it. We have further given a rapid glance to the ways in which certain phenomena that are so peculiar to group psychology as to afford a basis for the postulation of a herd-instinct or group-mind have nevertheless by some schools been explained without having recourse to such postulation.

The time has now come for us to conclude; but we have so vacillated from side to side, picking up one theory and then dropping it for another, considering this and that view only to point at its insecurity, embarking upon a promising trail without the necessary time to follow it up, that we are hard put to enunciate any but vague and tentative conclusions. We might, however, advance the view that a herd-instinct may perhaps exist as an innate tendency towards gregariousness, but that it has become so modified in man, and obscured in its real effects by the growth of intelligence, that it has become a factor of diminishing importance. It would certainly be unjustifiable to ascribe to it such further qualities as might necessarily urge towards the organization of groups or the innate observance of custom and law, as these can well be accounted for on other grounds. We might retain in addition the concept of a *herd-system*, but even this should not be taken too literally and should be regarded as a descriptive facility, a fiction of the 'As If' type of Vaihinger, applied to the *appearance of unitary urge*

occurring when the single and separate instincts are combining and acting together in complex ways to produce those results we are agreed to call social. At the most might it be regarded as an orientating factor, acquired through education and therefore not innate, that moulds conduct without producing it, and is not endowed with any such dynamic force as is ascribed to instinct.

Finally as regards psychopathology, there is little need in it for a mere instinct of gregariousness, and as to invoking any broad herd-system as a factor in mental derangement, it would be regarding this factor as much more unitary and definite than it really is, and the very comprehensiveness and complexity of construction of such a system would make it too unwieldy for clinical explanations. Last, but not least, it would introduce still more complexity in those ' mental mechanisms ' that are already too numerous and ill-defined.

NOTE.—In his later books, McDougall has introduced the word *propensity*, to include all that he used to describe under the heading of *instinct*. Whether or not the difficulties thereby removed will outweigh those that may at the same time be created, one cannot say yet. In any case, it is only very gradually that his newer views will find their way into our textbooks and manuals, and the influence of his original instinct theories upon British psychiatry seems likely to persist for some time to come.

CHAPTER XXII

TYPE PSYCHOLOGY, WITH SPECIAL REFERENCE TO JUNG

WHEN a patient is admitted to a mental hospital his condition is investigated from a number of angles. His physical state is ascertained, including the condition of his blood and his cerebro-spinal fluid; he may be found to exhibit such and such a neurological symptom. His mental state is probed into, his intelligence estimated, his emotional reactions noted, his complexes even may be progressively dug up. As a crowning summit to this edifice of knowledge a label is at last attached to the case, and a diagnosis arrived at.

True it may be that because a case is, say, one of melancholia, he will therefore need certain general lines of treatment, and may benefit by particular surroundings, conditions and methods. But we must always remember that the presence of symptoms of melancholia does not by any means establish the kind of individual the patient really is. Very different types of character may be found in melancholics; if we are to influence the patient satisfactorily, it will be wise for us to pay some attention to the manner of man he may normally be. In other words, we should think of our patients not only as belonging to various groups of pathological conditions, but also as representing some one or other class of human personalities; such knowledge, when used in our handling of them, will assist us to appreciate, too, what they may be expected to become once a cure has been effected, what state of normality it is to which we would assist them to return.

This, however, necessitates a descriptive classification of possible normal types—a classification to which an individual can be referred in order to arrive at a definite view concerning his character. And if the study of types be not given sufficient attention, there are grave risks of patients being too much considered as alike just because they belong to the one *clinical* group.

Freudian interpretation helps to show the individual experiences and subsequent repressions, complexes, etc., that may

account for a mental breakdown; but it leaves untouched those fundamental modes of reacting, those probably inherited methods of adaptation that distinguish one person from another. It is difficult to say whether even the division of individuals into erotic, obsessional and narcissistic groups corresponds to character traits that are innate or acquired.

Types have, of course, been studied by many writers. We have, for example, the classifications of Baldwin, Levy, Meumann, Rosanoff, Stern and Spranger; the work of Malapert and Fouillée, of Bain and Shand, of Perez; while Bulliot's eight types correspond closely to those of Jung.

The method of classifying types that we will here describe will be Jung's. It is perhaps the most fruitful, the most easily applied to normal as well as abnormal temperaments, and it allows of sufficient subdivision to be of more than limited use.

JUNG'S TYPES

Many years ago Jung divided human types of character into two broad classes—the INTROVERTS and the EXTRAVERTS. The former were recognized by their subjective attitude, their tendency to withdraw from the world of fact and turn their gaze within, to the world of fancy; emphasis was laid on those mental phenomena that arose from the deeper, hidden springs of human thought rather than on those consequent upon the intruding stimuli from the outside world. The extraverts, on the other hand, comprised people who were anything but introspective, who went ' out of themselves ' to meet the world of reality, who to some extent identified themselves with that world, and who valued all that was external to them because it *was* part of the real world and afforded multiple and varied experiences.

This division into two main groups was by no means new, and was reminiscent of Nietzsche, of Goëthe, and of Jordan; of James, of Blake and of Weininger.

At first the introverts were described as consisting mainly of the thinking type of people, whereas emotion was the decisive factor in the extraverts. Later, however, Jung came to realize that even an introvert may feel intensely, just as an extravert may be almost entirely guided by reason; and when it further became clear that real introverts only occurred rarely and were in a marked minority, it was soon found that such a classification

required considerable modification and elaboration before it could become of any practical value.

And so Jung came to describe the characters of introversion and extraversion as dependent, not upon any predominance of a particular mental function, such as feeling or thinking, but entirely upon the presence of a definite attitude towards life. This attitude might be, on the one hand, introspective, subjective and even mystical, or, on the other hand, objective and matter-of-fact. A tendency to *both* these attitudes he believes to be present in everybody, but there is always one attitude that assumes supremacy over the other. This supremacy is but slight in the well-balanced individual, but is much more marked in the extreme types; and when it is overwhelming, so that the whole response of the individual is entirely subservient to one attitude, then the personality runs the risk of becoming disrupted between a pair of opposites, between the dominant attitude and the dominated attitude that is struggling for some expression at all cost.

In health these opposing attitudes have to be to some extent unified, and the search for such a harmonizing of mutually antagonistic trends has proved a source of constant interest in mystical philosophies, especially in the East. The hymns of the Rig-Veda introduce this principle of unification as Rta, the goddess of harmonious purpose, generally invoked with her two guardians, Mitra and Varuna, representing day and night, light and darkness. This is further elaborated in the Upanishads into the concept of Karma—a concept comparable to Tao in China, or to the ' Reason ' of the Stoics. A pictured representation of the reunion of pairs of opposites is to be found in the Old Testament (Isaiah) in the pairing off of symbolical animals. The union of opposites is an important part of the philosophy of Heraclitus.

So much for the question of *attitude,* to which we will have occasion to refer again later. The next step is to recognize in every individual a dominating *function,* a form of mental adaptation that may be one of four—THINKING, FEELING, INTUITION or SENSATION. Here, again, we must remember that all four functions are found in everybody, but one of them dominates the personality, the others assuming a secondary rôle. Thus we have thinking, feeling, intuitive and sensational types, each one of which may be introverted or extraverted. Feeling

and thinking are higher functions, more recent in development and essential to ' rational ' conduct. For conduct to be rational it must be based on discrimination and weighing up, on an ascribing of values to the various items under consideration; and it is because such evaluation can be based on feeling as well as on thinking that we have these two ' rational ' types. Intuition and sensation on the other hand are lower, less evolved and less clearly conscious functions. Intuition might be compared to a not clearly realized guesswork form of thinking; being less adapted, it may assume mystical forms, and in the Hindu religions is exalted into the essential factor of religious experience (Radhakrishnan). Sensation is a primitive form of feeling into which enter none of the higher complex emotions characterizing a rational function; it is, rather, feeling brought down to the level of mere sensing. In contrast to thinking and feeling as ' rational ' functions, intuition and sensation may be regarded as ' empirical ' functions (van der Hoop).

Nevertheless, thinking and feeling are not to be considered merely as sensation and intuition on a higher plane—that is, as a mere integration; they are not just more complicated sensation and more complicated intuition. They are, on the contrary, to be regarded as ' emergents ' resulting from a process of evolution; they have ' emerged ' (Alexander, Broad) from lower functions, and possess in themselves new qualities and characteristics not present in those functions from which they have ' emerged '. (This view is not always admitted.)

An important point to be grasped at this stage is that whichever function is the leading one, its opposite will be in some degree repressed. Thus in a thinking type feeling is repressed, and in a sensational type intuition is; and the same thing holds good as regards attitude. Normally the repressed function and the repressed attitude influence the conscious from the unconscious, and ensure a certain degree of compensation. The behaviour of an individual may thus be regarded as consisting of (*a*) conduct guided by the dominant function, in keeping with the individual's general and apparent character, and (*b*) conduct that emanates from the repressed and compensatory unconscious function, not in keeping with the evident character, but, on the contrary, in contrast to it, rather impulsive, generally spontaneous and uncontrolled, and often as much a source of surprise to the individual himself as to the onlookers; such conduct, too, is

frequently—because it comes from the unconscious—more primitive and unadapted.

Further, if the conscious personality be, say, of the extraverted feeling type, then the unconscious will not only be of a thinking kind, but will also be introverted. That is to say, in the unconscious are found both *function* and *attitude* that are in direct opposition to the function and attitude of consciousness. If the antithesis between conscious and unconscious becomes too extreme, then neurosis may ensue and the unconscious will burst forth in open opposition to the conscious, perhaps for a time completely overpowering it.

The Extravert

In the extraverted attitude the decisive factor comes from without, and the individual lays little or no store on subjectivity; he is at one with his surroundings, he is fashioned by the world in which he lives, and his responses to the environment are primarily of the nature of adaptation.

When a tendency to neurosis is evinced, there comes first an exaggeration of extraversion; then strong compensatory symptoms from the unconscious make their appearance. These may assume archaic and symbolic forms, and are such as would indicate an attempt to bring the conscious outlook back to introversion; they stress the personal factor and are markedly egoistic. This egoism, being primitive, frequently verges on the wicked and brutal. Finally, all attempts at compensation having failed, the unconscious comes out more fully, clashes with the conscious, and dissociation may result.

A. *Extravert Thinking Type.*—This is found more frequently in men than in women. Thought and reason are the guiding principles of adaptation, and the individual is usually a staunch believer in formulæ. We recognize in him the man of principles who has a carefully reasoned code of conduct, and for whom there is no situation that cannot be met by means that have all been thought out beforehand in the abstract. Such a man is often held up by his acquaintances as a model of integrity and uprightness on account of his being so evidently ' reasonable ', but he nevertheless makes his own home a miserable one. His principles are so rigid that he has no tolerance, and all have to do his bidding; he is unable—because he has repressed feeling—to attain any degree of emotional attunement with his intimates, and no home

is kept together by reason only. His conduct is too systematized and his attitude too impersonal, his feelings are slight; and rather than being spontaneous they arise merely because the situation seems—that is, is thought—to justify such an expression of emotion.

Any compensation from the unconscious appears as introverted feeling, ego-centric emotions that often lead to unreasonable suspicions and prejudices, little outbursts of selfishness that seem to the superficial observer so ill in accord with his outward personality.

B. *Extravert Feeling Type.*—Here the individual—generally a woman—is in such emotional contact with the world that she responds through feeling. All the evaluating and judging that she does (being a ' rational ' type) are based on her feelings, and not, as in the previous type, on thinking. That there is a ' logic of feeling ' as well as a ' logic of reasoning ' is becoming more clearly realized. To her the outer world is so important, and has such a hold over her, that her feelings are apt to conform to certain patterns laid down for her by herd standards; thus the Victorian maiden who fell in love did so heartily enough, yet it was more often than not with the young man who was ' suitable ', and was pointed out as agreeing with the general standards of desirability. Thinking as a function is not absent, but follows far behind in the wake of feeling. As a lady of this type once remarked on being asked to accept the reasonableness of a particular line of thought: " But I can't think what I don't feel ! "

If the attitude becomes extreme, then compensations will appear as usual. These are generally impulsive thoughts, not infrequently calculated to belittle the object of emotional interest; they are judgments of the nothing-but-this or nothing-but-that variety. An example of such compensatory and non-emotional criticisms would be the impulsive, tactless and offensive opinions offered by people whose usual aim is to keep in good sentimental relation with those around them.

These, then, are the two ' rational ' extraverted types. They are judging types, they evaluate, and they are more individualistic than those characters to be next described, who respond to outer or inner stimuli without such an attempt at moral evaluation.

C. *Extravert Intuitive Type.*—This type occurs in both men and women. Intuition is the guide for focusing the gaze. Discrimination and judgment do occur, but not in order to determine

conduct; they are merely means to justify to others what has already been adopted spontaneously. Intuition appears as a kind of primitive and instinctive thinking; it does not obey the laws of ordinary logic, and the intuitive character is urged towards the adoption of any and every possibility as a definite probability. Such a type rather seeks stimuli that might lead to his reacting to them in the direction of an instinctive goal. He, particularly, would fit in with such psychology as Thurstone's attempts at showing how certain stimuli only are attended to on account of their leading to already desired action. Such an intuitive will see possibilities far in advance of the thinking type, who plods along by dry reasoning. He will be for ever running after wonderful schemes, and day by day he will seem to have reached the ' turning-point ' in his career, but just as he will run wild over one possibility to-day, so will he to-morrow abandon it for another. Some of the national characters of the Irish are due to intuition. The intuitive makes a good speculator, agent, company promoter, and has the enthusiasm to be a great leader—for a while—but he has no staying power; any success he may achieve is due to ' seeing in a flash ' what reason cannot yet perceive, and if he does not happen to embrace a career where change, ambition and ingenuity have ample scope he will fail miserably.

In times of stress or illness, when compensations from the unconscious are particularly liable to become prominent, they will, of course, reveal introverted sensation. The individual will have for a time to leave go of his world of outer and objective possibilities for that of inner and subjective sensation; in fact, he tends to become hypochondriacal.

D. *Extravert Sensational Type.*—Here we have a type, present mostly in men, that accounts well for the country squire of the last century; it is a type that is less marked now, but is still far from extinct; we might almost call it the conventional type. He is swayed, and adapts himself, by his sensations, and the decisive factors for him are those events that procure such sensations; for instance, a day's hunting or shooting, a good dinner, a glass of port or a cigar. All the little happenings that to others are just unessential trimmings, to him loom large and important. He is eminently sociable, but, owing to his lack of emotion, his attachments are never deep, and he flirts rather than loves. Here we see the object obtaining a sensuous hold of the subject (epicur-

eanism). Objects are really held in poor esteem nevertheless; their value lies not in themselves, but only in their capacity for arousing sensation. These sensationals are realists; they do not judge and evaluate, and are unable to fashion for themselves a code of moral conduct. As a result their whole ethics consist of ' what is done ' and ' what is not done ', and convention becomes the keynote to morality. They obey the commandments that others do, especially the eleventh—' Thou shalt not be found out '.

If the type tends to become extreme, then introverted intuition becomes manifest. There is a spontaneous appearance of wild conjectures, jealousies, phobias and compulsive symptoms of a moral character, with self-reproach, self-belittling and other ego-centric trends.

We have now considered the two irrational types that are ' empirical ' or, as they have also been named, ' perceptive '. They may be reasonable, but in them it is quite evident that judgment cannot keep pace with the other functions; it lags behind, and is never a decisive factor. Their conduct is more impulsive. As Ribot and Varendonck—also Janet—have pointed out, consciousness may be regarded as a substitute for motility; therefore with a less developed and less conscious function as the leading one (sensation or intuition) reflection will be at a minimum and impulsive conduct more marked.

The Introvert

The attitude in introversion is much more difficult to understand, partly because the introvert is too indifferent to other people to explain his mental processes, largely also because there are fewer introverts than extraverts. The introvert appears cold, aloof, independent and ego-centric; he is governed by subjective values. Those values themselves depend on certain general inherited characteristics, racial legacies that Jung regards as a ' collective ' or ' impersonal ' unconscious, somewhat comparable to inherited engrams. This unconscious, therefore, consists of material that has never been conscious, and so stands in contrast to the ' personal ' unconscious that results from repression and has been particularly stressed by Freud.

Cognition is not merely objective; it is also subjectively conditioned, and this by a factor that is of primary importance in the introvert. This factor has been defined as ' that psycho-

logical reaction which, when merged with the effect of the object, leads to a new psychological fact '. It amounts to this—that in the introvert an experience only attains value after its immediate effects have become associated with material from the collective unconscious. The subjective value of a percept is thus its power of linking up with primordial images. These primordial images are ' feeling-thoughts ', vague and general symbols of concepts that cannot be expressed rationally owing to their having never come under the moulding influence of education. Such images—of ' archetypes '—because they arise from the collective unconscious, that legacy from the past of the race to all the race, are possessed of a kind of universal validity and, in the introvertr have a high compelling value.

These archetypes may affect consciousness by leading to vague trends and tendencies that are ill-realized by their owner; as a result they are usually projected and falsely attributed to the object. If their expression be more direct, then it becomes symbolic. It becomes symbolic not just because it comes from the unconscious (Freud), but because it is archaic and belongs to a primitive level of thought (compare Rivers' ' release of a protopathic level '). Since the primordial images and their resulting expressions possess universal validity, they may act as links between members of a group. They are responded to by all, even if unconsciously so. They probably form a basis for Lévy-Brühl's ' participation mystique '.

The introvert is regarded by the extravert as selfish and unresponsive (the misautic type of Weininger); but this is simply because he does not express himself in the same way. In order to give himself up the better to his subjective attitude the introvert distrusts and resents direct interference from the objective world, and he erects a system of defences. His systems of protection against the tyranny of reality have been interpreted as a will-to-power (Nietzsche) or masculine protest (Adler). Even the introvert himself tries to explain himself on an objective plane by looking outward instead of inward; this is due to his very education, which has so stressed the importance of the objective and so erected it as the sole guide to truth that there is little room left for any conscious appreciation of the subjective factor.

In order for these subjective factors from the collective unconscious to lead to an attitude of introversion, all tendencies towards extraversion must first be repressed. The repression of

extraversion may lead to compensations; these will be objective in direction; they will tend to bring the subject more under the influence of the very outer objects he tries to belittle. The more he attempts to free himself from outside influences the more he becomes enslaved by them. This he may ascribe to 'Fate', without realizing it to be really the result of a compensatory factor within himself. For instance, it is not unusual to see a man striving after a subjectively acquired ideal of moral superiority, and attempting to free himself from doubtful ties and attachments; all the time, however, his compensatory factor is surely urging him towards his environment, and he ultimately succumbs to inferior relationships. Similarly a desire and lifelong struggle to dominate and rule ends in a pitiable clamour for being loved. The repressed unconscious influence may in some cases lead to a belief in magic or to compulsive acts of a magical nature.

A. *Introvert Thinking Type.*—This is more common amongst men. There is a slow subjective growth of a whole system of ideas, and the material world is only sought in support of these ideas. Outer facts in themselves are valueless; theories are manufactured wholesale and reign supreme. In this connection Darwin and Kant might be contrasted. Darwin, being an extravert thinking type, laid all emphasis on the facts he observed, and from them he developed theories. Kant, on the other hand, was an introvert thinker; he built up theories out of his wealth of subjective material, and invoked observation of facts merely to support his theories. In this type ideas are all-important, as they were for Plato and, later, Schopenhauer and Hegel. These subjective ideas are very powerful, because they link up with the primitive source of human thought. They often tend to mysticism and imagery, and to the analysis of the unknowable and transcendental. This type thinks intensively, not extensively, develops a negative attitude towards the object itself, and is cold, arbitrary, unpractical, never seeks the approval of others, and often tends to be exploited.

When the type becomes extreme, ideas are more profound, but also more inexpressible as they lose contact with reality and assume a more magical turn. Self-defence against the object is evidenced as negativism; but later extraverted feeling will make its appearance, thereby increasing the hold of the object upon the subject.

B. *Introvert Feeling Type.*—Feeling is the guiding function, just

as in the corresponding extravert type, but it is so deep-seated and subjective that outwardly the individual—generally a woman—appears cold and critical. Such feeling always deprecates the object. It arises from an object, but it fully develops only after association with a deep personal factor derived from the collective unconscious. The emotion or feeling itself is thus what is valued, no emphasis whatever being laid on the object originally causing it. And so, the outer situation meaning little to her, the individual does not feel bound to express her emotions. If they are expressed at all, it will probably be as poetry of a mystical form, or as a secret religiosity.

Compensations, when evidenced, occur as uncontrolled trends towards unscrupulousness, ambition, cruelty, scheming, etc. (extraverted thinking).

C. *Introvert Intuitive Type.*—This type is found in both men and women, and evinces an inward directed intuition. Perhaps Blake belonged to this group. There is a constant search for inner possibilities. Unconscious images appear, are raised to an independent status, and then are neglected, new ones taking their place. There is a chase from image to image, comparable to the extravert intuitive's bursts of enthusiasm over mere possibilities. Inspiration is the keynote to this character, and amongst people of this type we find prophets, seers and mystics, exhibiting many phantasies culled from ancestral inheritance.

Compensations, when well marked, will lead, through extraverted sensation, to unrestraint, and also to a resumption of supremacy on the part of the object.

D. *Introvert Sensational Type.*—This type—more prevalent amongst men—is guided by sensation. But here again, as with feeling in the feeling type, the sensation owes not its importance to the object causing it; rather does it owe it to the subjective factor that has become 'released' in the form of images and linked with it. The thing that matters to this type is not *what* they see, but *how it appears to them.* What stirs an artist is not the conglomeration of items that make up a landscape; it is the primordial images that are stirred within him by the effect of the landscape as a whole. Owing to this subjective factor there is a tendency to an illusory conception of reality, with a further tendency to personify (due to the archaic unconscious) and to the creation of deities and demons.

Compensations may occur through extraverted intuition,

leading to impractical and impulsive reachings after the illusory. If tinged with much primitiveness in its expression, such intuition is often directed towards the gloomy, dangerous and evil possibilities, and may give rise to a compulsion neurosis. Some of the 'rites to avert evil' found here may be the basis for traits that have been described as typical of the anal-erotic character.

Additional Types

Such, then, are the four main types of extraverts and the four main types of introverts. A further subdivision may, however, be obtained. We have already seen that whenever a particular function is dominant, its direct opposite is repressed. But it often occurs that one of the functions from the other group is also well developed, and it may act as an auxiliary to the dominant function. Thus a rational type will have one of the empirical functions as auxiliary, and vice versa. For instance, a thinking type will repress feeling, and will have for auxiliary function either (*a*) intuition or (*b*) sensation. In the former case the thinking will be more of the speculative kind, whereas in the latter it will be definitely empirical (e.g. W. James as compared with Hume). This would then lead us to the recognition of sixteen types instead of the eight we have described.

General Considerations

One of the difficulties of such type psychology is that so much of it depends on individual interpretation. This, in itself, however, may help us to realize a fact that is usually sadly overlooked. If it is true that there are such different types of mentality, types with different attitudes and exhibiting different dominant functions, then it follows that there may be as many psychological systems as there are types. In other words, the fact that we find such different schools of thought as are exemplified by structuralists, functionalists, self-psychologists, behaviourists, etc., may well be due to the likelihood of these psychologists being of different types. Each type tends to evolve a psychology that appears false, and *is* false, for other types, but nevertheless adequately explains his own type. Therefore the discrepancies between different schools of thought point not to a confusion so much as to possible progress. The psychology of the future may have to accept apparent antinomies of thought as

merely differences of type expressions, and be prepared to accept them all as different yet equally true solutions of its fundamental problems. There is, of course, a tendency for national traits to be reflected in the philosophies of different countries, especially as the prevalent types of one nation are not the same as those of another, nor are these prevalencies constant in time. Thus on the whole the English are more particularly sensationals, the French feeling types, the German thinking types, and the American intuitives; the West is extraverted where the East is introverted; the Middle Ages were more introverted than the Renaissance period.

Such a description of types as here outlined is purely psychological, but perhaps some day it will link up with other modes of approach. It has already been suggested that introversion and extraversion (as used by Jung, not as sometimes applied in psychiatry) might correspond to vagotonia and sympatheticotonia. The work of Kempf on the autonomic personalities is helpfully suggestive—provided too much stress be not laid on his ethical evaluations. The ductless glands in relation to types have been investigated by Berman, Jelliffe and others; it might appear that the suprarenal function regulates the attitude type, whereas the pituitary is responsible for the function type, the post-pituitary character being intuitive or thinking and the anterior pituitary one being sensational or feeling.

More difficult still than mere description is going to be the application of type psychology to psychiatric practice; indeed, not only to the practice of psychiatry, but more generally still to the practice of communal life. But before this is possible several steps have yet to be taken in the study of types.

(1) Better and more skilled determination of an individual's type. Here it must be remembered that many of the symptoms of insanity may be the expression of just the attitude and function that are opposed to the normal personality.

(2) Ascertaining the relationships that are likely to occur between one type and another when they are brought in contact. And this may be different in the sane and the insane.

(3) Noting the results of such association and relationships on character, not forgetting the possibility of change of type occurring.

(4) Investigating the conditioning of the occurrence of relationships, finding those factors that assist and those that hinder.

(5) Assessing the value of the results of such relationships. The evaluation need not be moral so much as psychological. It is often better to have a well-balanced personality that may not reach ethereal heights of morality than to have a strictly moral outlook that might predispose to a psychosis from insoluble conflicts.

(6) Lastly—and this is where the use of such type psychology will be found—regulating the occurrence or non-occurrence of these possible relationships. For instance, by bringing certain patients together and separating others, by placing certain patients under a particular charge-nurse, by carefully picking staff for acting as 'special' on a case, etc.

Not much definite guidance can be here given in this direction —it would be presumptuous to do so when such psychology is as yet so little part of routine psychiatric equipment—and only a few suggestions can be attempted.

First of all the study of types requires considerable tact, patience, with a sympathetic desire to appreciate in others what may appear odd or silly to us. A serious attempt must be made at eliminating personal bias in order to understand modes of reactions that may be in direct contrast to those prevailing in ourselves. Some day we may attain, as others have done before us, much worldly wisdom, a kindly and deep understanding of human nature, and just the right way of achieving the results we desire in our handling of our fellow creatures, sane or insane. Such a knowledge will be largely empirically gained, and it will have to be correlated with some system of type psychology. We must try to describe the methods we have found by experience to be successful in dealing with people of all kinds. Indeed, it will be up to those of us who have reached such understanding to impart it to others less fortunate, so that they need not be left to cover for themselves the same ground over and over again in the hope that they, too, may some day be able to lead and influence the minds of those with whom they come in contact. It will be up to us to correlate our methods with our theories, and unite in the producing of some practical guide to the whys and wherefores of the influencing of one type by another. Instead of demonstrating results, let us analyse and describe how we achieve them.

As regards the individual analysis of a case, Jung lays much stress on the physician's duty towards re-educating the patient. He raises an important point in connection with the actual

analysis. If the repressed material be brought to light without previous preparation, then the personality of the patient might find it difficult to withstand the shock. So at first the personality should be strengthened by gradually educating and developing the auxiliary function. For instance, in an intuitive type with feeling as the auxiliary function, his emotions should be developed, appealed to and given more prominence, before attempting a deep analysis.

Again, patients should be treated according to their types. We may find that a sympathetic attitude is the best one to cultivate, or we may think an authoritative manner is the best. Again, a humorous way may get us most easily over some of the difficulties of handling patients, or else we may believe that reasoning with our cases is the most generally successful. But let us beware lest we become too imbued with the one method only. Let us not cultivate exclusively the one manner best calculated to give us a high percentage of results, but rather let us utilize the several manners suited to the several types we meet.

In general it may be said that the irrational types are all the more difficult to treat, that in them there can be little permanent judgment or purpose; they have to be appealed to all the time and are too much opportunists. Sometimes a type may change—at least as regards attitude (introversion or extraversion)—not infrequently as a result of close association with a similar attitude type with the same dominant function. Treatment is in any case best undertaken by either of the rational types. The feeling extravert with intuition as an auxiliary function, for instance, makes a better suggestionist than any of the other types. Jung suggests that whereas an introvert can analyse an extravert, the converse does not hold.

We might now touch briefly upon an aspect of mental hospital work for which the junior psychiatrist receives little or no training; I mean the handling of, and general dealing with, the staff. Nor can he have much assistance in this respect. He must train himself in this part of his work in preparation for the time when long service and higher rank will make it necessary for him to have a certain proficiency in this direction. Of course experience will be his main teacher, but invaluable help and guidance will be afforded him by a clear understanding of type reactions. It is urgent that one should have the necessary influence over the nurses, and amongst a large staff all types of characters may be

encountered; any association with them for a length of time should make possible the recognition of these types. Therefore the necessity for many methods of moulding and directing the staff's efforts will become obvious. It is, for instance, of little use reasoning with a sensational type of nurse, or appealing to the feelings of a thinking type. The mere *possibility* of a certain event happening will hold little sway over a thinking type—it is reasonable *probability* that counts with him or her; but even the most improbable possibility, provided it be of an appealing (or appalling) kind, will start an intuitive racing after or away from it as the case may be.

The study of types may be helpful in the forecasting of the smoothness or otherwise with which certain members of the staff will work together. We might instance the unlikelihood of any lasting relationship between the rational and the empirical types. They may come together for a while owing to a common situation (the compelling force of which will soon wear off for the empirical type), or on the grounds of a common goal, but what is a permanent aim for a rational is likely to be only a temporary one for an empirical.

As we have seen before, certain types are more suited to ordering than obeying. Thus an intuitive who makes a bad servant may make a good master, especially a good superior. He turns his gaze in ever new directions; he instils keenness into others for a certain kind of work. True he soon tires and looks elsewhere, but others under him are left to carry on the work whilst he brings his enthusiasm to bear upon some other subject or department, activating everything there. It is probable that the intuitive may work for good or evil. The intuitive medical officer doubtless causes many an anxious moment to his superintendent. One day he demands pounds' worth of a new drug that is going to cure half the inmates; next week the drug is no good, but he has just discovered the one factor in the diet that is responsible for the fact that most of the patients die before they reach the age of a hundred! He requires to be toned down and have the brakes applied; on the other hand, let it not be forgotten that he may see most useful methods and arrive at valuable conclusions long before the slower thinking mind even glimpses them.

Lastly, one word about the introvert. Introverts are ill-suited to mental work. A nurse who after her months of

probation is discovered to be an introvert in any marked degree should certainly be dispensed with. She cannot establish contact with her surroundings. Because she appears callous and aloof, she will not get on with her patients, being always suspected by them of ill-will, or accused of wrong-doing. She will not work harmoniously with her colleagues, will quarrel with them, and perhaps be exploited by them. She will be liable to a mental breakdown herself; her subjective life being so stressed already, she will be very susceptible towards her patients' tendencies to phantasy formation; she may easily drift into a neurosis with hallucinations and compulsions.

Enough has been said to outline the importance of the subject, and though the above remarks cannot claim to bring anything new or original to bear on the matter, they will not have been in vain if they assist anyone in mental hospitals to remember the need for a clearer understanding of types, and the possible influence of such knowledge upon the everyday work of the institution, while the scope for the application of this approach to the wider question of human relationships in general is obvious.

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To assist further reading, a few of the books (100) have been marked and placed in one of three categories. The first (*) comprises good introductions to main themes, the second (†) consists of general accounts of more specialized and less directly psychopathological approaches, and in the third (‡) are advanced or more detailed works that may yet be of value to the general reader. It must not be inferred, however, that books not so marked are necessarily of less value, because, as only a few of the many helpful works could be indicated in this way, it was a case of selecting some and leaving others, a process that is so individually determined that its results are inevitably open to criticism.

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