

PSYCHOPATHIC PERSONALITY.

By DESMOND CURRAN, M.B.Cantab., F.R.C.P., D.P.M.,

Temporary Surgeon-Captain, R.N.V.R., Consultant in Psychological Medicine to
the Royal Navy,

and

PAUL MALLINSON, M.A., B.M.Oxon., M.R.C.P.,

Temporary Surg.-Lieut.-Commander, R.N.V.R., Neuro-psychiatric Specialist.

“ I can't define an elephant ; but I know one when I see one.”

THE discussion of any topic is handicapped so long as there are doubts and disagreement as to what is being discussed.

There is general agreement that a large and heterogeneous mass of abnormal and unusual people do exist who are not suffering from any of the more formally recognized types of mental disorder. There is also agreement that the study of such people is of great social and psychiatric importance. There is not, however, the same agreement as to how these abnormal and unusual people should be classified, nor as to the terminology that should be used for this purpose. At various times such terms as moral insanity, moral imbecility, temperamental instability, psychopathic inferiority, constitutional psychopathic inferiority, constitutional psychopathic state, psychopathic personality, psychopathic state and even neurotic character have been proposed to describe varying sections of the group.

In order, perhaps, to avoid any suggestion of a moral judgment or an unproven theory of aetiology, such terms as moral imbecility and constitutional psychopathic inferiority have become less popular, and the more neutral term of psychopathic personality is at present widely favoured. Thus, for example, “ the term psychopathic personality has come into more general and official use, but there is no term used in this connection that could not be criticised with more or less reason ” (Hall, 1941).

An extension in the direction of disarming neutrality can be seen in the advocacy of the term psychopathic state by Henderson (1939) ; but perhaps this term, like psychopathic personality, owes its merit to a frank confession of ignorance, and may in time be replaced by more satisfying categories defined on an aetiological basis.

A further source of difficulty has been lack of agreement upon the precise meaning of the term “ psychopathic,” for it is employed both in the general and literal sense of “ deviation from the normal in all possible directions and mixtures ” (Bleuler, 1936), and in the more special sense of exemplifying the suggested characteristics of the behaviour of a psychopathic personality, however this may be defined or described.

Definition.

The following definitions, drawn from the voluminous literature on the subject, may serve as a starting-point for discussion.

Kahn (1931): "It is impossible to give an exact definition of psychopathic personality. By psychopathic personalities we understand those discordant personalities which, on the causal side, are characterized by quantitative peculiarities in the impulse, temperament and character strata and in their unified goal-striving activity are impaired by quantitative deviations in the ego and foreign variations."

Schneider (1934): "Psychopathic personalities are those abnormal personalities who suffer from their abnormality or from whose abnormality society suffers."

White (1935): "Psychopathic as a prefix has come to be a wastebasket into which all sorts of things have been thrown. Society has developed machinery—more or less ponderous and creaking and ineffective to be sure, but nevertheless based upon fairly concrete formulations—for handling the so-called insane at one end and the so-called criminal at the other. The psychopaths fall between. They belong in neither group, and they get into either more or less by accident."

Henderson (1939): "The exact term we use is perhaps not very material so long as we define what exactly we mean, but personally I prefer to use the term psychopathic state because it does not stress unduly either innate or acquired characteristics, and does not imply total mental unsoundness, defect or delinquency, but yet allows for modifications of all of them . . . it is the name we apply to those individuals who conform to a certain intellectual standard, sometimes high, sometimes approaching the realm of defect but yet not amounting to it, who throughout their lives, or from a comparatively early age, have exhibited disorders of conduct of an anti-social or asocial nature, usually of a recurrent or episodic type, which, in many instances, have proved difficult to influence by methods of social, penal and medical care and treatment, and for whom we have no adequate provision of a preventative or curative nature. The inadequacy or deviation or failure to adjust to ordinary social life is not a mere wilfulness or badness which can be threatened or thrashed out of the individual, but constitutes a true illness for which we have no specific explanation."

Savitt (1940), after reviewing some thirty definitions, advocates that of Cheney (1934): "Psychopathic personalities are characterized largely by emotional immaturity or childishness with marked defects of judgment and without evidence of learning by experience. They are prone to impulsive reactions without consideration of others, and to emotional instability with rapid swings from elation to depression, often apparently for trivial causes. Special features in individual psychopaths are prominent criminal traits, moral deficiency, vagabondage and sexual perversion. Intelligence shown by standard intelligence tests may be normal or superior, but on the other hand, not infrequently a border-line intelligence may be present."

North (1940): "We are inclined to look upon the psychopathic personality as a type of personality expressed in behaviour which is definitely out of step

with the individual's situation in life (or in the group in which he lives). The outstanding characteristics are that the behaviour is abnormal, non-constructive, not always useful to the individual, and that it leads to maladjustment and may be harmful to society."

Levine (1940): "It is essentially that the psychopath has a different set of solutions from the neurotic, in which the psychopath tends to make others unhappy and the neurotic to make himself unhappy." And again—

Levine (1942): "The patients of this group do not have specific signs and symptoms of illness as do the neurotic and psychotic. Their disturbance is one of action and social behaviour. The essential patterns of the psychopath are these. They live predominantly in short term values, i.e. have a predominant need for the immediate satisfaction of their impulses and desires, and are unable to subordinate immediate gratifications for more lasting pleasures. They tend to act out their conflicts in social life, instead of developing symptoms of conflict in themselves."

In March, 1941, a vigorous discussion took place at a joint meeting of the New York Neurological Society and the Section of Neurology and Psychiatry of the New York Academy of Medicine on the definition and limitation of the psychopathic group. At this meeting A. A. Brill expressed the view that "all the psychopathic personalities belong to some psychotic group and should be classified accordingly."

Somewhat similar views have been expressed by Cleckley (1941): "In the wide spectrum of personality functioning he (the psychopath) lies, let us say, not in the extensive and variegated borderland between psychosis and the normal, not among or near the various and bewildering shades of psychoneurosis, but plainly and unquestionably within the vivid area of the psychotic."

Petrie (1942) pleaded that merely abnormal or prepsychotic personalities, e.g. those showing cyclothymic or schizoid features, should not be labelled psychopathic, as this would tend to over-extend an already vague and indeterminate group, and K. A. Menninger (1941) has expressed similar views.

Again, according to Bullard (1941): "The commonly accepted conception of a psychopath is a person who cannot learn by experience, who fails to recognize the limiting or restraining influence of reality. Such a person recognizes no law but his own immediate need . . . the history of the psychopath is replete with a succession of misadventures. They are truly the social misfits. . . . It is in fact a very far cry from the schizoid and related people, who are often highly valuable if somewhat unstable members of the community, through the cyclothymics, who often carry on useful lives in the most conventional manner between their phases of disturbance, to the psychopaths, who by no stretch of the imagination can be conceived to be useful citizens. They live in and for the moment, have a keen intuitive empathy which enables them to shift position rapidly, but they have no real alertness to or comprehension of the implications or complications resulting from their behaviour." Bullard stresses the importance of a poor work record as a clue to the diagnosis.

Goldstein (1942) makes the same point when discussing the exclusion of psychopaths from the armed forces at recruiting boards: "Psychopathic

personalities were recognized by the response to questions as to jail and school records."

It must be confessed that no very clear or unitary conception of what constitutes the psychopathic personality springs to life from these definitions; yet many of them share in common an emphasis upon episodic and impulsive behaviour which is socially undesirable, this episodic and impulsive behaviour being recurrent and, in the present state of knowledge, unmodifiable. The salient feature of the psychopathic personality is stressed as essentially consisting in persistent or repeated disorder of *conduct* of an anti-social type.

Classification.

A more complex, confusing picture emerges from the study of the various classifications of psychopathic personality that have been proposed.

Kraepelin (1915): The excitable, the unstable, the impulsive, the eccentric, the liars and swindlers, the anti-social, the quarrelsome.

Partridge (1930): Inadequate—(a) insecure, (b) depressive, (c) weak-willed, (d) asthenic; egocentric—(a) contentious, (b) paranoid, (c) explosive, (d) excitable, (e) aggressive; criminal—(a) liars, (b) swindlers, (c) vagabonds, (d) sexual perverts.

Kahn (1931): The nervous, the anxious, the sensitive, the compulsive, the excitable, the hyperthymic, the depressive, the moody, the affectively cold, the weak-willed, the impulsive, the sexually perverse, the hysterical, the fantastic, the cranks, the eccentric.

Schneider (1934): The hyperthymic psychopaths, the depressive psychopaths, the self-insecure psychopaths, the fanatics, the attention-seeking psychopaths, temperamentally unstable psychopaths, explosive psychopaths, insensitive or antisocial types, weak-willed psychopaths, asthenic psychopaths.

Strecker and Ebaugh (1935): The criminal, the emotionally unstable, the inadequate, paranoid personalities, drug-addicts, pathologic liars, swindlers, kleptomaniacs, pyromaniacs, the morally degenerate, sexual psychopaths, the hobo, the pseudo-querulant, the malingerers.

Noyes (1935): The excitable, the inadequate, pathological liars and swindlers, the anti-social, sexual psychopaths.

Sadler (1936): Kleptomaniacs, pathologic liars, eccentrics, sex abnormalities, the feebly inhibited.

Bleuler (1936): Nervosity, the aberrations of the sexual impulse, abnormal irritability, instability, special impulses (squanderers, wanderers, gambling mania), the eccentric, pseudologia phantastica, constitutional ethical aberrations (enemies of society, moral imbeciles), the contentious.

Henderson (1939): The predominantly aggressive, the predominantly passive or inadequate, the predominantly creative.

K. A. Menninger (1941): The predatory personality, the sycophantic personality, the histrionic personality, the façade personality, the transilient personality.*

* To anticipate possible research: "Leaping or passing from one thing or condition to another" (O.E.D.), or, in other words, our old friend the grasshopper mind.

Levine (1942): The alcoholics, the drug addicts, the sexual deviates or perverts, the hysterical psychopathic personalities, the pugnacious or overly aggressive individuals, the inhibited or shy individuals, the individuals showing other types of neurotic behaviour, some criminals, viz. psychopathic criminals.

U.S. Navy, quoted by Griswold (1942): Inferiority without psychosis, emotional instability, criminalism, inadequate personality, paranoid personality, pathologic lying, sexual psychopathy.

The classification of the American Psychiatric Association:—

Psychopathic personality:

With pathologic sexuality—indicate symptomatic manifestations, e.g. homosexuality, erotomania, sexual perversion, sexual immaturity.

With pathologic emotionality—indicate symptomatic manifestations, e.g. schizoid personality, cyclothymic personality, paranoid personality, emotional instability.

With asocial or amoral trends—indicate symptomatic manifestations, e.g. antisociality, pathological mendacity, moral deficiency, vagabondage, misanthropy.

A perusal of these lists cannot fail to suggest that the conception of what can constitute a psychopathic personality has undergone considerable extension. It will be recalled that the central conception deduced from the proposed definitions which have been considered lay in persistent or repeated disorder of conduct of an anti-social kind. Whilst many of the "types" listed are clearly anti-social, other types are outlined according to their predominant mood or some leading attribute of character who are not obviously or even probably anti-social at all. Indeed no central conception of any kind other than the probability of some degree of "abnormality" can readily be deduced from these lists. The one deduction, however, which does seem to be legitimate is that if a classification is erected on the basis of a leading characteristic, as appears to have been done, this characteristic will be shown persistently; or, in other words, that the central feature of psychopathic personality is some degree of persistent abnormality of character which is frequently (but not necessarily) anti-social in its manifestation.

The Criteria of Psychopathy.

As a consequence of the realization of the limitations of a descriptive approach, attempts have been made to seek the basic components of psychopathic personality.

Levine (1940): Not normal, i.e. not mature, of good health and adjustment; not psychotic; not neurotic (although they may develop neurotic or psychotic symptoms); not necessarily feeble-minded; they live in a greater degree than is healthy in terms of short term values or the pleasure principle; they tend to solve their life conflicts by overt behaviour.

Hall (1941): Egocentricity; inability to profit by experience; emotional instability; lack of perseverance; unreliability and irresponsibility; defective judgment; suspiciousness.

Sprague (1941): Inability to postpone; ineffective consideration of consequences; insufficient learning from experience; faulty synthesis; dispro-

portionate responsiveness; affective dominance over intellect; disvaluation of reality; disregard for truth; insufficient social valuation.

Cleckley (1941): Superficial attractiveness, cleverness, facility in talking and often apparently good intelligence; freedom from psychotic and more marked psychoneurotic symptoms; unreliability and irresponsibility; disregard for truth and honesty; unwillingness sincerely to accept any blame; absence of shame; cheating; lying, thieving often for trivial gains; poor judgment concerning his own welfare; inability to learn by experience; egocentricity; poverty of affect; inability to see himself as others see him; inadequate responsiveness to special consideration or kindness; shocking or fantastic episodes of behaviour often associated with a drinking bout; infrequent sincere suicidal attempts; tendency to create scenes and situations so bizarre and untimely as to seem purposeless; sexual abnormalities, e.g. promiscuity; the manifestations of psychopathic behaviour may begin at any time, not necessarily in childhood; lack of perseverance; repeated failures to make good.

The criteria offered by each author can of course only relate to that group which the author in question is willing to recognize; and although it will have become evident that no general agreement has been reached on this point, yet it is not perhaps without significance that all these four authors who have made the definite attempt to list criteria agree in outlining an unreliable type of individual of defective judgment, liable to impulsive acts which are often both imprudent and inconsiderate, and who is moreover unable to profit by experience.

Aetiology.

The research into the aetiology of psychopathic personality has been directed towards the elucidation of constitutional, physical and environmental (including psychological) factors.

(1) *Constitutional factors.*—Many authors have emphasized their belief in the constitutional origin of these cases. Thus, North (1940) holds that the failure of treatment points to a constitutional cause, and according to Slater* (1938), "with few exceptions, however, the psychopathic personality is the result of the combination of hereditarily determined tendencies." Slater, in this authoritative review, goes on to add that normal or superior personalities are similarly determined by inherited tendencies.

These views appear to represent the most commonly held opinions. On the other hand, Cleckley (1941) remains "skeptical" about the significance of a positive family history in a psychopath, as in his cases "familial inferiority is notably lacking." As he points out, however, he is only concerned with a strictly limited group.

Hopes that exist in this sphere have been summarized by Henderson (1942): "The science of genetics, still in its infancy, may contribute much to our knowledge, and we can look forward with confidence to the greater information to be derived from the study of uniovular twins, and to the benefit likely to follow such a positive eugenic step as the adoption of family allowances."

* A most valuable contribution by this author has appeared too recently for inclusion in this survey (*J. Neur. and Psychiatry*, 6, Nos. 1 and 2, Jan.-April, 1943).

More precise genetic studies have been mainly concerned not so much with psychopathic personalities defined as such as with abnormalities of character associated with other forms of mental illness. A study of Riedel (1937) revealed a heavy loading of abnormality of various kinds, including criminal, defective, schizophrenic, as well as unusual (" auffallende ") personalities but no evidence of genetic unity. Again Wildermuth (1937) records a probably uniovular pair of female twins who were both severe hysterical psychopaths. It is, however, only by an extension of the concept of psychopathy to cover almost the whole field of psychiatry that, for example, the studies by Lewis (1935) on obsessional states, by Kolle (1931) on paranoid states, by Brugger (1934) on alcoholics or by Davidenkov (1936) on epileptics could be considered here. For the same reason no attempt could be made to summarize the large literature on the heredity of criminals and delinquents, amongst which a well known book by Lange (1929) and the work of Rosanoff, Handy and Rosanoff (1934) are outstanding examples of the approach through the study of twins.

So long as there is no consensus of opinion as to what constitutes a psychopathic personality, there can be no clearly defined clinical entity from which genetic studies can readily make a start.

Confirmatory evidence as to the constitutional origin of these cases has been deduced from the study of the electrical activity of the cortex.

These studies " stem " from the work of Davis and Davis (1936), Lowenbach (1939) and Lennox, Gibbs and Gibbs (1940), who found that cortical dysrhythmias of an epileptoid type may frequently be seen in the EEGs of unaffected relatives of epileptics. Williams (1941) concluded: " An abnormal EEG in an otherwise normal subject is strong evidence of an inborn constitutional abnormality involving the central nervous system. This abnormality appears to be non-specific, and may manifest itself in the subject or his offspring as a behaviour disturbance which may be psychoneurotic, psychopathic, psychotic or epileptic in type."

Gallagher, Gibbs and Gibbs (1942) studied 200 boys, 14-15 years old, with special reference to any relationship between the EEG and personality deviations. They found that there was no rigid relationship between the EEG and personality, but that if the EEG fell within certain normal limits, the chances that the personality would be normal were increased, whilst if it departed widely from the normal, the chances of an abnormal personality were increased. The deviations of the EEG were often, however, identical in poor and good personalities; but in general, an unusually slow cortical activity was more likely to be associated with a poor personality, and an unusually fast cortical activity with a good personality.

In a valuable paper Hill and Watterson (1942) concluded: " It is with aggressiveness that the EEG shows the consistent abnormality. The more aggressive the patient, the more likely is the EEG to be abnormal. On the evidence gathered by us from control material and patients, and that obtained by other workers, one can have little doubt that an abnormal EEG constitutes for its possessor a handicap in the business of biological adaptation, failure of which may show itself, as in our present series, in undesirable social behaviour."

Hill and Watterson provide a table summarizing the results of their own work and that of Williams (q.v.) :

Category.	Abnormal EEG.
Highly selected flying personnel	5 per cent. (Williams).
R.A.M.C. personnel	10 „ („).
Mixed controls	15 „ (Hill and Watterson).
Mixed psychoneurotics	26 „ (Williams).
Inadequate psychopaths	32 „ Hill and Watterson).
Aggressive psychopaths	65 „ („ „).

Hill and Watterson also state that there is some evidence that the changes seen in the EEGs of epileptics are associated with the changes in the pH of the fluid interchange through the cell membrane. On this basis they are investigating the question as to whether the brains of aggressive psychopaths also show this defect of acid base balance control. They state that three factors are known to influence cortical rhythms. (1) Biochemical changes in the blood (hypoglycaemia, oxygen lack, toxic encephalitis). (2) Cerebral trauma, either at birth or subsequently. (None of the abnormalities found in the series investigated could not have been produced by trauma. In the aggressive psychopathic group, however, a history of head-injury was less common among those with abnormal EEGs than among those with normal ones. This is a somewhat surprising result in view of the well-known fact that head injury can result in aggressive behaviour.) (3) Constitutional defects (Lennox, Gibbs and Gibbs, 1940).

Hill and Watterson favour the idea of "cortical immaturity" on the basis of the similarity between the EEGs of aggressive psychopaths and those of young children. In this connection it is interesting that Brill and Seidemann (1941) found a diminishing incidence of slow rhythms with advancing adolescence. Somewhat similarly Secunda and Finley (1942) found that abnormal EEGs were more common amongst problem children than amongst normal children, but the cases of behaviour disorder showed abnormal EEGs with a diminishing frequency as they grew older. Thus, in the 4-9 age-group the frequency of abnormal EEGs was 74 per cent., and in the 16-18 age-group 34 per cent.

Curran and Guttmann (1943) conclude a brief discussion of this subject as follows: "It is perhaps worth mentioning that bodily anomalies frequently co-exist with the psychological anomalies in these abnormal characters, and all the so-called nervous symptoms, such as tremor, restlessness, profuse sweating, vasomotor lability with blushing and fainting and an allergic disposition are frequently found combined with the psychopathic anomalies, though detailed correlations have yet to be made. The same is true as regards morphological anomalies, often called stigmata, asthenic build, disproportion in physique, underdevelopment of the secondary sexual characters, or heterosexual features."

(2) *Physical factors*.—Langfeldt (1938) pointed out that the number of cases in which the abnormalities of behaviour found in psychopathic personalities

should be regarded as "symptomatic" is increasing as the underlying causes are discovered.

The disturbances of behaviour associated with generalized and focal cerebral disease have received much attention in the past in such conditions as G.P.I., encephalitis lethargica, the presenile and senile dementias, disseminated sclerosis, cerebral arteriosclerosis, cerebral injury and epilepsy. These disturbances are often so striking, and in certain instances resemble so closely those found in psychopathy, that it is natural that attempts should have been made to discover cerebral lesions in cases of psychopathic personality. In no condition, with the possible exception of post-traumatic personality changes following head injury, is this similarity more strikingly demonstrated than in epilepsy. Thus, Gottschalk (1942) describes the "epileptic personality" of the chronic institutional psychotic epileptic as egocentric, subject to outbursts of rage, stubborn, inflexible, boastful, irritable, hypersensitive, explosive, suspicious, oversolicitous, variable in work habits and unrestrained.

Ingham (1938) suggested that in psychopathic personalities "the intricate structural patterns of the brain may be so built up that despite a high degree of intelligence the correlated whole in behaviour is defective," and considered that the diencephalon may be defectively developed in these cases.

Wigert (1938) found, as the result of air studies, cerebral changes in 17 out of a series of 50 cases of psychopathic personality.

Alpers (1940), summarizing his own findings and those of Cox (1937) and Dott (1938) in a series of cases in which the hypothalamus was destroyed or its function interfered with by tumour, reports a reversal of the customary personality trends: a lack of inhibition with the development of coarse traits, a failure of appreciation of many of the niceties of life, carelessness in habits, indifference to surroundings and to obvious anti-social tendencies and a partial or complete lack of insight into these changes. In those who survived operation for removal of the tumour the personality once more became normal; whilst in those who died there was no evidence of damage to the cortex.

A fascinating example of the co-operation of physical factors in the production or facilitation of psychopathic behaviour has recently been reported by Hill and Sargant (1943). In this case whenever the blood sugar fell below 100 mgm. per 100 c.c. the EEG became abnormal, and hyperventilation would induce an abnormal electrical discharge in the cortex, which was associated with some degree of impairment of judgment and clouding of consciousness. The subject came under investigation because of a psychopathic outburst, which the evidence (accepted by the jury) suggested had taken place when he was in the above condition and during which he had murdered his mother. Few lines of research in the whole of this difficult field appear to promise more hopefully than the correlation of electro-encephalographic with biochemical findings.

North (1940) advocates that investigation should be made into the possible aetiological significance of birth injury, prolonged anoxaemia during delivery, twilight sleep and the use of anaesthetics during labour, and of such maternal conditions during pregnancy as acute infections, chronic diseases, alcoholism, etc.

As in the case of brain lesions, the elucidation of endocrine dysfunction has

long been regarded as likely to contribute much to the understanding of personality. The common association of hyperthyroidism, myxoedema, eunuchism, etc., with personality changes has led to attempts to make more detailed studies of other endocrine personality relationships.

Thus, for example, Wittkower and Wilson (1940) found that psychological maladjustment was four times as common among a group of women suffering from primary dysmenorrhoea as among a group of normal controls. They considered that this maladjustment took the form of resentment of the female role, chronic anxiety or hypochondriasis, and was sometimes associated with immature physical development. As children many of these women had been boisterous and aggressive. On the other hand, they considered that the childhood of a series of sterile women had been characterized by poor health, timidity, unsociability and deficient self-assertion.

A complete survey of such studies as these, however, as well as of the considerable volume of work upon the personality features of patients suffering from gastric, cardiac, rheumatic and other physical diseases, would entail a consideration of the whole field of psychosomatic medicine, and would scarcely be appropriate or even possibly relevant here. This applies equally to numerous psycho-physiological investigations, such as that of Thompson and Corwin (1942), who claim that the breathing characteristics, e.g. volume of tidal air, which are common amongst schizophrenic patients, are also frequently found among non-psychotic individuals of a schizoid disposition.

(3) *Environmental and psychological factors.*—Cleckley (1941) considers that the failure of the psychopath to make a satisfactory adjustment to life is due to his inability "to grasp emotionally any of the ordinary components of meaning or feeling implicit in the thoughts which he expresses or the experiences he appears to go through." The way in which psychopathic personality differs from the normal consists in an unawareness of the meaning-aspect of human life. There is a selective and far-reaching dissociation involving primarily emotion and more indirectly purpose which, unlike the circumscribed dissociation of hysteria, extends throughout all the range of experience and all the reactions of the total personality. For this form of dissociation Cleckley suggests the name "semantic dementia." He considers that it results from conflicts unsatisfactorily resolved or dealt with by compensation, sublimation, or other mechanisms of adjustment. Plunging deeper, he holds that the development of faulty patterns of behaviour may be due to (1) a failure of partial erotic impulses to synthesize into a practicable genital psycho-sexuality or failure to deal satisfactorily with the Oedipus situation, (2) the need to find a means of escape from inferiority feelings, (3) improper development of the super-ego, or (4) faulty conditioning in the sense in which this term is used by Pavlov and Watson.

While subscribing to the view that a "psychobiologic or psychodynamic" concept is the most useful one in considering the aetiology, Cleckley is unable to single out any one conflict or any particular fixation. As he says, "the deeper levels of the personality in such patients are difficult to investigate because of their inability to achieve a transference reaction and their lack of real sincerity in co-operation."

It may be considered that the above views do not so much provide an explanation as a description in psychopathological terms, which the author happens to fancy, of what has been observed. The complications of the psychopathological approach to the ill-defined problems of abnormal personalities are well shown in the contribution by Glover (1932) upon the psychopathology of drug-addiction considered from the psychoanalytic standpoint.

Space also precludes any attempted exposition of the very interesting views of Kahn (1931) on the structure of the psychopathic personality; for he uses the term in a wide sense and, in effect, offers a system of psychopathology of quite general application. It may be that such an approach is the most appropriate.

Binder (1942) found that of 350 mothers who had illicit pregnancies, one-third were normal, one-sixth mentally backward and one-half psychopathic; while Henderson (1942) emphasizes the importance of early environmental factors, such as maternal psychopathy, discordant family life, lack of family affection and generally insecure living conditions among illegitimate children. In a series of 34 such children he found that 17 were psychopathic. It is possible, of course, only in individual cases to decide upon the relative importance of inherited and early environmental factors. The home life of the unwanted child is likely to be unsatisfactory whether the mother is psychopathic or not. The great importance of environmental factors in revealing psychopathic personality has been strikingly demonstrated by the call-up of men into the Services.

Treatment.

The view is generally expressed that the treatment of marked psychopathic personality has, so far, baffled both psychotherapy and the law; prolonged analysis and prolonged incarceration have proved equally ineffective.

With regard to the treatment of psychopathic personalities in general, Levine (1942) frankly states that "often the psychopath is more difficult to treat than the neurotic, because the psychopath's difficulties often have a large element of pleasure connected with them, e.g. the pleasures of alcoholism. Psychotherapy, therefore, is up against the added obstacle of the human unwillingness to relinquish pleasure, even though such renunciation would lead eventually to greater pleasure." On the other hand, he states that some forms of psychotherapy may be of real help in the milder cases of psychopathic personality.

Schilder (1938) writes: "With the exception of cases with compulsions and obsessions, neurotic symptoms may be treated in psychopathies with short psychotherapy. If one wants to change the character deviation as such, a deeper form of treatment will be necessary in the majority of cases. Hypnosis is then useless. The general principles of treatment are the same as in the treatment of neurosis, only that special attention has to be given to the resistance coming from the character. . . . Passing symptoms of psychopathic individuals react rather quickly to any type of psychotherapy which is half way rational." In his section on the treatment of drug addiction, Schilder, after stressing the "enormous" difficulties which the therapist encounters,

says: "I have indications that the final cure of the alcoholic lies in his contact with a group. Alcoholism is, after all, a disease in social relations. The final technique has to be worked out. . . . We are as far from the solution to this important problem from a psychological point of view as from a social point of view."

It may be recalled that of the 23 cases of psychopathy taken on for treatment at the Berlin Psychoanalytic Institute during the ten years for which published results are available, 18 discontinued treatment, 4 were unimproved and only one was classed as "recovered or much improved" (quoted by Hinsie, 1938).

The views expressed by Henderson (1942) may be summarized briefly as follows:

(1) Many of the psychopath's difficulties may straighten out in the process of ageing.

(2) Personal understanding, training, control and management of the environment may achieve a great deal.

(3) Preventive and social measures: Social service, child guidance clinics, child welfare centres, children's courts, the probation system, approved schools, Borstal institutions, and last, but not least, medical education can play their part.

(4) There may be possibilities in shock treatment.

(5) Developments in chemical and pharmacological therapy may occur.

(6) "Joining one of the Services" has been tried and found wanting as a therapeutic measure.

The problem of the treatment of the psychopath is, at present, according to Henderson, essentially a therapeutic challenge; little, so far, can be claimed.

Cleckley (1941) suggests that the first step should be to regard psychopathic personalities as psychotic and to organize special institutions for them, since they are not helped by commitment either to prisons or to mental hospitals. In these special institutions, which he estimates would need to cater for nearly as many individuals as do mental hospitals at present, their abilities would be made use of in work which would help to pay for their maintenance under whatever degree of supervision was necessary to keep them out of trouble. Every effort would be made to "alter existing patterns of personality functioning," if necessary by such drastic measures as shock treatment or even "pre-frontal lobotomy" should these appear to hold out any hope of success. If by some such means, a "profound alteration in the psychobiologic functioning of the patient" can be brought about he advocates intensive psychotherapy, and suggests as possibilities distributive analysis combined with constant synthesis and re-education (Diethelm, 1936), Freudian analysis, "general semantics" (Korzybski, 1937), or an approach based upon the Gestalt psychology. In any case, "such facilities for the permanent care of these patients would in time bring to autopsy material never before available on such a scale."

It is, perhaps, somewhat surprising that, in view of their present popularity, more authors have not advocated mutilating operations upon the brain.

A less drastic scheme of rehabilitation is briefly mentioned by Curran (1942) for naval ratings who (as the author states with a facile dogmatism) "suffer

from pronounced personality disabilities of long standing, i.e. men whom all would agree to regard as psychopaths." In the opinion of the naval neuro-psychiatric specialists these men, although extremely unreliable and unsatisfactory, did not present sufficient evidence of illness to justify discharge on medical grounds. The rehabilitation unit was under executive, not medical authority. The effect on the men's behaviour was regarded as promising. "Of the first forty-nine ratings who, up to June, 1942, had been in the camp for three months or more, eleven had been passed fit for general service at sea, fourteen for various duties (coaling, boiler cleaning and the like ashore), one was discharged from the Navy and three had been transferred to hospital for invaliding."

In general it may be concluded that, in the present state of knowledge, obligatory rehabilitation under discipline and psychiatric supervision appears to offer the best chance of enabling the severe psychopaths, particularly those with anti-social tendencies, to gain some measure of stability and to pull at least some of their weight in society. For the more transient psychopathic manifestations and for neurotic symptoms which arise in a psychopathic setting, relatively simple methods of psychological and environmental management give reasonably good results.

Discussion.

Is it possible to make any synthesis of the varying and divergent views that have been expressed? It would indeed be surprising if people with such varied propensities and attainments as "the unstable" and "the liars and swindlers" (Kraepelin); "the sensitive" and "the affectively cold" (Kahn); "the self-insecure" and "the insensitive type" (Schneider); "the inadequate" and "the pyromaniac" (Strecker and Ebaugh); "the anti-social" and "the sexual psychopaths" (Noyes); sufferers from "nervosity" and "the eccentric" (Bleuler); "the predatory" and "the façade personality" (Menninger, K. A.); "the drug addict" and the individuals "showing other types of neurotic behaviour" (Levine); Napoleon Bonaparte and J. J. Rousseau (Henry); Joan of Arc and T. E. Lawrence (Henderson); Mr. Micawber and Pop-Eye the Sailor (Cleckley),* to name only a few who have been classified as psychopathic personalities, could adequately be contained in a single diagnostic category.

The only conclusion that seems warrantable is that, at some time or other and by some reputable authority, the term psychopathic personality has been used to designate every conceivable type of abnormal character. This is, however, a broad conception, and tells us little except that the abnormality is considered to be an expression of the character, and is therefore likely to be deeply ingrained, if it is not indeed of constitutional origin.

There can, of course, be no doubt that the study of the character or personality (for the two terms will be used here synonymously) of all patients

* It would appear that Pop-Eye is impotent. It is the considered opinion of the Professor that neither Zuleika Dobson nor Peer Gynt should be regarded as psychopaths, for the former "is perhaps more of a phantasy than a definitely created character," and the latter, "too, belongs perhaps as much in Elfland as to the ordinary world," although he "shows a capacity for spiritual failure and a strange unreliability that suggests a translation of our problems, or some aspect of it, into poetry."

is of fundamental psychiatric importance, nor that the clue to many abnormal mental reactions must, at present, be sought for in the personality of the patient rather than anywhere else. There can be equally no doubt that a large number of abnormal mental reactions do develop in abnormal personalities or, putting it perhaps more clearly the other way round, abnormal personalities are prone to develop abnormal mental reactions. Yet, whilst this may be granted, two important points must be made:

Firstly, not all abnormal characters do in fact develop what can legitimately be regarded as abnormal mental reactions or, in other words, the possession of an abnormal character does not in itself and necessarily constitute a medical problem—unless of course it is most illegitimately so defined. A man can surely be abnormal or unusual or even persistently anti-social without being sick.

Secondly, to equate psychopathic personality with abnormal character is not only likely to result in confusion for the reason just given, but approximates perilously to making the study of psychopathic personality co-extensive with the major part of psychiatry.

It would be quite outside the bounds of practical politics to attempt to review all the studies of "personality" that have been made in medicine. These now include studies of nearly every type of physical and mental disease. Further information on these studies must therefore be sought elsewhere. Yet it could be argued plausibly that omission to make such a review would be to restrict in a wholly arbitrary fashion the limitation of the psychopathic group.

The same lack of unanimity as to what should be regarded as a psychopathic personality accounts for the wide discrepancies in the estimates of the frequency of the condition; for these seem to vary according as to whether the investigator regards the abnormality of the character of the patient or the presenting symptoms shown by him as the more important.

Thus, Cleckley (1941) considers that more than a quarter of the patients admitted to a clinic of over 1,000 beds "for the diagnosis and treatment of neurologic and mental disorders" should be regarded as psychopaths, while Savitt (1940), who points out that only those psychopaths who have psychotic episodes—a small minority—tend to reach hospital, states that "psychosis with psychopathic personality" was the diagnosis of only 2.17 per cent. of the admissions from New York City to all the mental hospitals in New York State during the fifteen-year period 1920–1934. Similarly at Creedmoor State Hospital this diagnosis accounted for only 2.1 per cent. of the admissions during the year 1937–1938.

Hall (1941) gives the following table showing the admission-rate per 100,000 men for the principal psychiatric disorders in the American Army hospitals in 1938:

Constitutional psychopathic state	. . . . .	270
Psychoneuroses	. . . . .	266
Dementia praecox	. . . . .	131
Other psychoses	. . . . .	64
Epilepsy	. . . . .	61
Mental defect	. . . . .	32

Wittson, Harris, Hunt and Solomon (1942) found the following incidence in 600 consecutive neuropsychiatric cases at a U.S. Naval Training Centre :

Mental defect	33 per cent.
Constitutional psychopathic state (and inferiority)	26 "
Neurologic disorder	24 "
Psychoneurosis	8 "
Psychosis	5 "
Illiteracy	4 "

Curran (1942) recorded that 5 per cent. of the cases admitted to Royal Naval hospitals and sick quarters in Great Britain in 1940 with neuropsychiatric disorders were diagnosed "psychopathic personality." Grelinger (1940), on the other hand, reported that 51 per cent. of the first 400 Dutch military psychiatric casualties admitted to the central unit of the psychiatric service of the Dutch Army were diagnosed as psychopaths. In this series all reactive depressions were included under this heading.

Is it therefore necessary whilst recognizing confusion to admit defeat, or, like two eminent British psychiatrists, to make an excuse for looking the difficulties firmly in the face and passing by, as when they wrote: "Unless, however, psychiatry takes account of the psychopathic personality, even when not accompanied by symptoms of illness, it cannot study delinquency, disorders of behaviour in children, sexual perversion and other non-obviously medical anomalies which touch very closely on psychiatric problems in their stricter sense, but are omitted for reasons of space"? No further discussion of psychopathic personalities is given in this section on psychological medicine in Price's *Text-book of Medicine* (1941).

In spite of the confusion and disagreement that exist as to the proper limitation of the field, there are certain types of behaviour which all workers seem to agree to call psychopathic. These *psychopathic reactions* are characterized by their transient, episodic uncontrolled and often explosive character and, it may also be added, by their reactivity to environmental factors. The storm may be very violent while it lasts and may take the most diverse forms—loss of temper, impulsive conduct, outbursts of violence, fits of weeping—but it is usually soon over, although it may readily be provoked again.

(Hysteria, through its personal purposiveness and through the tendency of many psychopaths to develop gainfully motivated symptoms, has a special relationship to psychopathic personality. According to Anderson (1941), "The hysterical personality has the power in response to the dissatisfaction in the real self of creating, elaborating and organizing another self, whose attributes are designed to deceive both the creator and his entourage. He lives his other self and ultimately becomes it.")

There are also certain types of personality which all workers would agree to call *psychopathic personalities*, namely, those individuals *par excellence* who indulge repeatedly in anti-social acts, amongst whom the family black sheep or nightmare, and certain types of criminal, are well known examples.

A major source of difficulty would appear to be the double use of the term

psychopathic to describe both a manifestation of the first kind and a state of the second kind. The former is a more or less transient reaction, the latter a more or less permanent or continuous condition. Trouble arises because they are each defined in terms of the other. Thus, the existence of a psychopathic reaction is inferred from a psychopathic state, and the manifestation of a psychopathic reaction leads to the inference of a psychopathic state. But the association between a psychopathic reaction and a psychopathic state, as these terms are often used, is in fact verbal rather than invariable. Thus, as has been seen, certain authorities have been preoccupied with the criterion of continuity, and have included amongst their psychopathic states persistent abnormalities of instinct, temperament and character (not of an anti-social kind). Such people may seldom or never have shown psychopathic reactions of the typical episodic "short circuit" variety that has just been described. Again other individuals may only exhibit these episodic psychopathic reactions in particular circumstances, and so infrequently as scarcely to qualify them as suffering from psychopathic states rather than tendencies.

It therefore seems essential to emphasize that this distinction between episodic psychopathic reactions and continuous psychopathic states is not always made, and to realize that, as these terms are often used, the inference of one from the other is not possible except for a certain limited group.

Another source of difficulty comes from this lack of clear distinction between psychopathic reactions and psychopathic states. By their nature, psychopathic reactions often have unattractive or undesirable social results; and those psychopathic states which are in fact mainly constituted by the frequency of the psychopathic reactions that are shown are necessarily characterized by the same results. It will, however, be remembered that persistent abnormalities of instinct, character and temperament are also often classified as psychopathic states; and these persistent abnormalities of instinct, character and temperament by no means always occur in socially inadequate or undesirable people.

Again, the attitude adopted by society towards, for example, the same persistent instinctual deviation may differ widely in different periods and places. A good example of this is quoted by Hamilton (1939). Thus, according to Plato: "It is very unjust that the homosexual should be accused of immodesty, for it is not through lack of modesty that they act in this way; it is because they have a strong soul, manly courage and a virile character that they seek their own kind, and this is proved by the fact that with age they seem to be more efficient than the others as servants of the state." But according to Leviticus: "If a man also lieth down with mankind as he lieth with a woman, both of them have committed an abomination. They shall surely be put to death. Their blood shall be upon them." Now, if stress is laid upon what is regarded as anti-social conduct as an essential aspect of the psychopath, the Greek homosexual would not have been a psychopath but the Hebrew homosexual would have been; whilst if stress is laid upon persistent abnormality of impulse or character as a cardinal feature, both would have been psychopaths.

The position that has now been reached may perhaps be summarized as follows. Three main conceptions may be partially disentangled:

(1) The conception of psychopathy as shown by persistent abnormality of character.

(2) The conception of psychopathy as shown by episodic "short circuit" reactions.

(3) The conception of psychopathy as shown by asocial or anti-social behaviour.

All these manifestations may occur with varying degrees of severity and (with the exception of (1)) frequency; but (again with the exception of (1), which is necessarily always present), they need not all be seen in the same person.

The whole field may thus be divided for convenience into—

(a) *Vulnerable personalities*.—These personalities can perhaps best be described as potentially unstable individuals or bad psychiatric risks. These are the people who have a small margin of reserve and who, when pinched by circumstances, are liable to develop neurotic and psychotic, as well as psychopathic reactions. They may develop one type of reaction on one occasion and another on a later occasion; or, if they are lucky, they may pass through life unscathed.

The large number of such individuals has been strikingly shown in the war, and many of the breakdowns that occur in war have been regarded as psychopathic in this sense. A perusal of some of the figures previously given shows this to be so.

Only one example need be quoted which illustrates the change in the type of reaction that can be shown and the fact that the prognosis need not be poor. Thus a naval rating who had never been to sea exhibited psychopathic reactions by deserting impulsively and repeatedly, and in other ways. After a period of rehabilitation under discipline he showed such improvement that he was considered fit for draft to sea, but on his first trip was subjected to extremely severe enemy action. He did not react to this in a psychopathic way, but developed the symptoms of anxiety state, which he had not shown previously. He has since been able to carry on with good work on shore service (personal communication).

Suitable environmental management, as in this case, provides an essential part of the prophylaxis and treatment of the vulnerable personality and it can be most effective. The importance of trying to fit pegs into the most appropriate hole for them has been shown very clearly in the war, and will doubtless be shown not less clearly afterwards.

The assessment of the degree of vulnerability naturally presents great difficulties, but it can be estimated with varying degrees of accuracy by a careful scrutiny of the past history. Thus, in a study of 100 consecutive neuropsychiatric cases admitted to a naval hospital, Curran and Mallinson (1940) considered that 8 should be diagnosed as psychopathic personality; and the prediction of these cases seems, in view of the past history, to be a relatively easy matter. But they also considered that 39 other cases revealed such a degree of instability in their past history as to render them predictable bad risks for the special stress of naval service. It was arguable whether a number of these cases should not also be classified as psychopathic personalities

rather than under some other heading. An unsatisfactory personality was, however, only forthcoming in 5 out of 50 surgical control cases. Again, in another study of 88 depressive states, Curran and Mallinson (1941) considered that 15 had unsatisfactory personalities of such a kind as might have served as a warning signal that they would break down under stress. It may be recalled that Grelinger (1940) included all reactive depressions under the heading of psychopathy.

(b) *Unusual or abnormal personalities or characters.*—The distinction from the vulnerable personalities must necessarily be one of degree; but here may be included the wide variety of persistently unusual or abnormal characters whose departure from the common run is more obvious than in the case of the vulnerable personalities.

Unusual personalities are not necessarily potentially unstable or bad psychiatric risks, nor are they necessarily socially undesirable. They would, for example, include well-adjusted homosexuals as well as certain eccentric and remarkable individuals. Unusual personalities of such types may neither request nor require medical treatment.

But on the other hand, many of the personalities which may be called abnormal, such as those commonly classed as schizoids, cycloids, or cyclothymics, hysterics, obsessionals and many more are much more likely to be bad psychiatric risks than is the case for the unusual group. Amongst these abnormal personalities, abnormality shades very readily into the definitely pathological.

(c) *"Sociopathic" personalities.*—The cardinal feature of this group is seen in their asocial or anti-social behaviour. They may be divided in the usual way into those who are predominantly inadequate and those who are predominantly aggressive. The predominantly inadequate correspond to those individuals who are frequently described as exhibiting "constitutional psychopathic inferiority"; weak-willed and easily tired, they provide many of life's failures. The following example of an inadequate sociopath may be quoted. A Newfoundlander enlisted with most of the eligible men in his village in January, 1940. His application was a half-hearted gesture which both he and his mother and, as he said, the whole village were astonished and dismayed to find successful. He had been known for years as a semi-invalid, taking after his father, who had twice been a patient in a mental hospital. He had given up one job after another because it was too strenuous, and his work record consisted of short periods in labouring and farming jobs, longshore fishing, and fish-packing, interspersed by considerable intervals for rest and recuperation. On arrival in this country his humble position, the disappointing pay, and the lack of interest in his hypochondriacal complaints shown by his messmates and superiors in the training depot provoked an intense resentment against the authorities who passed him as physically fit to join up. After a few weeks he reported at the sick bay complaining of pain in the back, which he alleged had been brought on by rifle drill, and frequency of micturition. Full urinary investigation was carried out, including even an intravenous pyelogram and a radiograph of the spine and renal areas; no physical abnormality whatever was discovered. On admission to a Royal Naval Auxiliary

Hospital his mental state can be briefly described as disgruntled petulance. He was completely taken up with his own symptoms and disappointments; he showed no interest in the war news or the other patients, worked mechanically in the occupational department, and went through the movements in the physical-training class in feeble apathy. He made no improvement at all until the decision to invalid and repatriate him was made.

The predominantly aggressive type of sociopath is actively anti-social rather than merely a burden on others. These sociopathic personalities tend to show psychopathic reactions very readily.

It will be clear that these divisions do not constitute mutually exclusive entities. The members of any group may show in greater or less degree the characteristics of another group, and all of them may exhibit psychopathic reactions with varying degrees of frequency and intensity. Indeed the one feature common to them all is the possession in some form of persistent abnormality of character. This naturally does not prevent the development of mental illness of a neurotic or a psychotic as well as of a "psychopathic" type, and in fact the possession of an abnormal character constitutes some predisposition to these developments.

Environmental factors are of great, but of somewhat different, importance in all three groups. Thus, a vulnerable personality may only be susceptible to certain stimuli. Protected from these specific stimuli, a precariously adjusted individual may be well able to withstand other stresses. Again, abnormal characters form, by definition, a minority of the population. The difficulties they will experience as the result of their peculiarities will vary according to the attitude adopted by the society in which they live. This has been illustrated by the contrast between the Greek and Hebrew attitudes towards homosexuality. Finally, both aggressive and inadequate individuals may be potentially sociopathic; but overt manifestations of this, in the sense of an obvious departure from what is socially acceptable, often depends upon the social setting in which they find themselves placed. Thus, desertion in the Services is an offence; but may correspond to repeated changes of occupation for inadequate reasons in civilian life, which is not an offence. Experience in the war has demonstrated very clearly that incorporation in a disciplined force with rigid standards will often exhibit inadequate and aggressive individuals as sociopathic failures or delinquents.

If the above is a fair summary of the present position, the discussion of the prognosis and treatment of all these various types of vulnerable, unusual, abnormal and sociopathic characters, now all lumped together as psychopathic personalities, must embrace so many factors that it cannot profitably be undertaken before more agreement has been reached on questions of definition and delimitation. Perusal of the literature on the subject shows very clearly that, at the present time, agreement has not been reached. One point may, however, be made. The therapeutic pessimism that is so widespread in the discussion of psychopathic personalities is only justified in the case of the more severe "sociopaths," with which group many writers who have been more specifically interested in the problem of psychopathic personality have been mainly concerned. It may prove that, as certain authors have advocated, these socio-

paths alone will be designated as psychopathic personalities; but at present this is not the case. Although it may not be possible to effect any radical alteration in any deeply ingrained abnormality of character, much can be done to help individuals who show certain of these abnormalities by environmental and psychotherapeutic and, perhaps in time increasingly, by physical measures as well.

REFERENCES.

- ALPERS, B. (1940), *Psychosom. Med.*, **2**, 286.
 ANDERSON, E. W. (1941), *J. R. Nav. Med. Service*, **27**, 141.
 BINDER, H. (1942), *Die Uneheliche Mutterschaft*, reviewed by Diethelm, O., *Am. J. Psychiat.*, **98**, 784.
 BLEULER, E. (1936), *Textbook of Psychiatry*. Macmillan Co.
 BRILL, A. A. (1941), *Arch. Neurol. Psychiat.*, **46**, 736.
 BRILL, N. Q., and SEIDEMANN, H. (1941), *Am. J. Psychiat.*, **98**, 250.
 BRUGGER, C. (1934), *Z. ges. Neurol. Psychiat.*, **151**, 103.
 BULLARD, D. M. (1941), *Psychiatry*, **4**, 231.
 CHENEY, C. O. (1934), *Outline for Psychiatric Examinations*. New York: State Hospitals Press, Utica.
 CLECKLEY, H. (1941), *The Mask of Sanity*. London: Kimpton.
 COX, L. B. (1937), *Med. J. Australia*, **1**, 742.
 CURRAN, D. (1942), *J. Ment. Sci.*, **88**, 494.
Idem and GUTTMANN, E. (1943), *Psychological Medicine*. Edinburgh: Livingstone.
 CURRAN, D., and MALLINSON, W. P. (1940), *Lancet*, **ii**, 738.
Idem (1941), *Brit. Med. J.*, **i**, 305.
 DAVIDENKOV, S. N. (1936), *Prob. de Neur. et de Psych. Clin. et Exper.*, **35** (Kharkov).
 DAVIS, H., and DAVIS P. (1936), *Arch. Neurol. Psychiat.*, **36**, 1214.
 DIETHELM, O. (1936), *Treatment in Psychiatry*. New York: Macmillan Co.
 DOTT, H. M. (1938), in *The Hypothalamus*, p. 212. London: Oliver & Boyd.
 GALLAGHER, J. R., GIBBS, E. L., and GIBBS, F. A. (1942), *Psychosom. Med.*, **4**, 134.
 GLOVER, E. (1932), *Internat. J. Psychoanal.*, **13**, 3.
 GOLDSTEIN, H. K. (1942), *Am. J. Psychiat.*, **99**, 29.
 GOTTSCHALK, J. A. (1942), *ibid.*, **98**, 839.
 GRELINGER, H. (1940), *Ned. Tijd. Geneesk.*, **84**, 150.
 GRISWOLD, W. B. (1942), *U.S. Nav. Med. Bull.*, **40**, 646.
 HALL, R. W. (1941), *War Medicine*, **1**, 383.
 HAMILTON, D. M. (1939), *Psychiat. Quart.*, **13**, 229.
 HENDERSON, D. K. (1939), *Psychopathic States*. New York: W. W. Norton Co.
Idem (1942), *J. Ment. Sci.*, **88**, 485.
 HENRY, G. W. (1938), *Essentials of Psychiatry*. Williams & Wilkins.
 HILL, D., and SARGANT, W. (1943), *Lancet*, **i**, 526.
 HILL, D., and WATTERSON, D. (1942), *J. Neurol. and Psychiat.*, **5**, 47.
 HINSIE, L. E. (1938), *Concepts and Problems of Psychotherapy*. London: Heinemann.
 INGHAM, S. D. (1938), *J.A.M.A.*, **111**, 665.
 KAHN, E. (1931), *Psychopathic Personalities*. New Haven: Yale Univ. Press.
 KOLLE, K. (1931), *Z. ges. Neurol. Psychiat.*, **136**, 97.
 KORZYBSKI, A. (1937), *Am. J. Psychiat.*, **93**, 1343.
 KRAEPELIN, E. (1915), *Psychiatrie*, ed. 8, **4**.
 LANGE, J. (1929), *Verbrechen als Schicksal*. Leipzig: Thieme.
 LANGFELDT, G. (1938), *Nord. Med. Tid.*, Heft 16.
 LENNOX, W. G., GIBBS, E. L., and GIBBS, F. A. (1940), *Arch. Neurol. Psychiat.*, **44**, 1155.
 LEVINE, M. (1940), *Ohio State Med. J.*, **36**, 848.
Idem (1942), *Psychotherapy in Medical Practice*. New York: Macmillan Co.
 LEWIS, A. J. (1935), *Proc. R. Soc. Med.*, **29**, 325.
 LOWENBACH, H. (1939), *Bull. Johns Hopkins Hosp.*, **65**, 125.
 MAPOTHER, E., and LEWIS, A. J. (1941), section on Psychological Medicine in Price's *Textbook of Practical Medicine*, p. 1821. Oxford University Press.
 MENNINGER, K. A. (1941), *Bull. Menninger Clin.*, **5**, 150.
 NORTH, E. A. (1940), *Dis. Nerv. Syst.*, **1**, 136.
 NOYES, A. P. (1935), *Modern Clinical Psychiatry*. London: Saunders & Co.
 PARTRIDGE, G. E. (1930), *Am. J. Psychiat.*, **10**, 53.
 PETRIE, A. A. W. (1942), *J. Ment. Sci.*, **88**, 491.
 RIEDEL, H. (1937), *Zentr. f. d. ges. Neurol. u. Psychiat.*, **89**, 228.
 ROSANOFF, A. J., HANDY, L. M., and ROSANOFF, I. A. (1934), *J. Crim. Law and Crim.*, **24**, 923.
 SADLER, W. S. (1936), *Theory and Practice of Psychiatry*. St. Louis: The C. V. Mosby Co.
 SAVITT, R. A. (1940), *Psychiat. Quart.*, **14**, 255.

- SCHILDER, P. (1938), *Psychotherapy*. London: Kegan Paul, Trench, Trübner & Co.
- SCHNEIDER, K. (1934), *Die Psychopathischen Persönlichkeiten*, ed. 3. Leipzig: Deuticke.
- SECUNDA, L., and FINLEY, K. H. (1942), *New Engl. Med. J.*, **226**, 850.
- SLATER, E. T. O. (1938), *British Encyclopædia of Medical Practice*, **8**, 560.
- SPRAGUE, G. S. (1941), *Bull. New York Acad. Med.*, **17**, 911.
- STRECKER, A. E., and EBAUGH, F. G. (1935), *Practical Clinical Psychiatry*, ed. 4. Blakiston.
- THOMPSON, J. W., and CORWIN, W. (1942), *Arch. Neurol. Psychiat.*, **47**, 265.
- WHITE, W. A. (1935), *Outline of Psychiatry*, ed. 14. Nervous and Mental Disease Pub. Co.
- WIGERT, V. (1938), *Acta Psychiat.*, **18**, 401.
- WILDERMUTH (1937), *Zentr. f. d. ges. Neurol. u. Psychiat.*, **87**, 249.
- WILLIAMS, D. (1941), *J. Neurol. and Psychiat.*, **4**, 131 and 257.
- WITTKOWER, E., and WILSON, A. T. M. (1940), *Brit. Med. J.*, **ii**, 586.
- WITTON, C. L., HARRIS, H. I., HUNT, W. A., and SOLÖMON, P. (1942), *War Medicine*, **2**, 944.