

PSYCHOPATHIC PERSONALITY AS A GENETICAL CONCEPT.*

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IN recent discussions of the subject by Curran and Mallinson (1) and by Kinberg (2), emphasis has very properly been laid on the inextricable confusion that at present prevails in the use of the term "Psychopathic Personality." Very many attempts have been made, for instance by Henderson, Cleckley, Cheney, Levine, Bullard and others (1), to characterize a syndrome. The characteristics of the syndrome have been seen in the make-up of the personality and its social relationships. But every authority disagrees with every other, and if there is any feature in common in all the definitions that have been provided, it is a lasting, but otherwise unspecified, incapacity to build up satisfactory social relationships. The confusion has gone so far that Kinberg has suggested that the term should be dropped altogether, particularly as it promotes a fatalistic attitude in the clinician and does not dispose to enthusiasm in therapy.

This is, I believe, going too far. If we were to drop the term altogether, we should be obliged to invent an equivalent or to hamper ourselves in the description and categorization of a whole series of clinically very important phenomena. If we return to a definition propounded by one of the earlier workers on the subject, Kurt Schneider (3), we will attain a necessary clarity, and be provided with a useful framework for classification. Schneider pointed out that in our use of the words normal and abnormal we tended to confuse meanings of two quite different kinds. Normal could be used either to signify that which was healthy and satisfactory, or to designate phenomena which fell within a certain range of observations of the population at large. Thus according to the first view a mild degree of dental caries is abnormal, according to the second, normal. Schneider goes on to show that the use of "normal" on the first, which is an ideal scale, leaves us at the mercy of changing opinions and of concepts of value which can never be scientifically validated. If we confine "normal" to its second meaning, we have a firm basis of observation on which to rely, and there will be uniformity between workers in the use of the word. Schneider points out that there is a very wide individual range, and that abnormal, i. e. falling beyond this range, means essentially nothing more than unusual. In our experience of life we run into men and women of characters that differ but little from the average of their fellow men, and others who differ widely, who have very well-marked character traits. In some respects variation may occur along lines which have but little medical or social significance, e. g. musical ability, but in other traits there will be medical and social consequences. Schneider proposes using the term "psychopathic personality" to categorize those abnormal or unusual persons who are

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from time to time likely to find themselves in the consulting room of the psychiatrist, i. e. those persons who are likely to suffer under their abnormality, or unusualness, and those who are likely to cause society to suffer. From this point of view there is no distinction between these two types except of convenience. At one time a man may be suffering himself under the consequences of a strongly marked temperamental trait, and consequently showing himself as ill and a patient; at another he may be causing society to suffer, and thereby coming into conflict with his fellow men, perhaps to be regarded as, say, a criminal.

It is to be noted that these two forms of behaviour have been embodied in Anglo-Saxon psychiatry as concepts of a radically different kind, and a man of the first kind has been regarded as neurotic, and of the second kind only as psychopathic. This has probably been largely because attention has been diverted from the constitutional aspects and devoted to the mechanisms of illness. The work of Freud and his followers has caused immense emphasis to be laid on the dynamic factors which lead to a neurotic illness, and the whole of the explanation of behaviour of this kind has been seen in these mechanisms. There is, however, now a considerable body of work which suggests some reorientation of our views. The rôle played by psychological experiences in infancy and childhood in predisposing towards an eventual neurotic reaction, and by the proximate causes which eventually precipitate breakdown, remains important; and factors of these kinds must still have a considerable part allotted to them in any adequate consideration of the aetiology of these states. But it has also been shown that hereditary factors play a part in the predisposition, and that all men are not equally alike in their susceptibility to abnormal behaviour.

Furthermore clinical experience suggests that the distinction between psychopathic and neurotic behaviour is artificial. We may take as a prominent example manifestations of a hysterical kind. The type of case which is familiar to all clinicians is that of the woman who is constantly attracting medical attention because of overt symptoms, paralyses, tremors, pains, etc. In this sense she is neurotic. But she also insists on great attention being paid to her illness by other members of the family, interferes in their affairs in an egoistic way, and is indeed causing society to suffer through her abnormalities. In this sense she is psychopathic. We can, I submit, only lead ourselves into confusion if we insist on making qualitative distinctions of this kind, and regard them as of more than momentary and pragmatic validity. The confusion of thought engendered is constantly hampering us in practical day-to-day work. Let us take the case of the epileptic. Because of his fits he is probably receiving medical attention; but he is also very likely to suffer from mood variations often of an explosive kind. These may lead him into conflict with society, and to his treatment, not by medical men, along lines which have no medical justification. But there can be little doubt that the mood changes as well as the fits are the consequences of an altered cerebral metabolism, and equally proper subjects of medical research and treatment.

Earlier workers have adopted the Schneiderian view, but have proceeded from it to a classification of humanity into types, such as the introvert and the extravert. While attempts of these kinds have certainly led to the advance-

ment of knowledge, they have on the other hand led to an excessive schematization, and the categorization of humanity into water-tight compartments. Modifications of this approach have proved necessary. It is now fairly well established that the greater part of human variation in intelligence is referable to physiological causes, and is controlled by a very great number of genes of small effect. Once we are out of the range of the idiots and imbeciles, the intelligence ratings of the rest of humanity, as has been shown notably by Fraser Roberts, conforms to the normal curve, the hump-backed curve, with its smooth peak at the mean or average, about which the greater part of the population are concentrated. There is every reason to suppose that in respect of temperamental traits, too, the same distribution holds. I would like to refer particularly to the work of Eysenck (4). Taking such a quality as suggestibility, which has frequently been connected by psychiatrists with hypnosis and hysteria, he found that when tests of this function were regarded in a naïve way, it did seem that human beings could be classified into two types, those who were and those who were not suggestible. More careful work brought out, however, that when the tests were sufficiently sensitive about the middle of the range and were not all too closely connected with an all-or-none reaction, the normal curve did indeed hold. He and I would agree in following the lead of Guilford in taking the concept of dimensions of the mind as that which is best adapted to a consideration of observational data, and not that of types.

Human beings must be held to vary, in a way which is adequately described by the normal curve, along not one but very many independent dimensions. Some of these factors which have been analysed by Eysenck and his co-workers are the general tendency to neuroticism, the disposition towards the opposite poles of an affective or a hysterical reaction, body type and body size, levels of aspiration, suggestibility, and others. And these traits, though independent, have correlations one with another. Many of them are shown to have close connections with the disposition to react to environmental stresses with neurotic symptoms. In fact differences between individuals are of a quantitative and measurable kind, and certain traits of personality are particularly associated with neurotic symptoms of one kind, others with symptoms of another kind.

We now come to a consideration of the aetiology, and here I wish to lay emphasis on the fact that I am not discussing the proximate causes of neurotic breakdown or of psychopathic reactions. These causes lie in the strains and stresses of life as we live it, and will differ for each of us. Things which to some are a strain will be a source of satisfaction and well-being to others. Their mode of operation has been extensively investigated by psychoanalysts, followers of the school of Pavlov, by neurologists, physiologists, electroencephalographers, general physicians and many others. What I am proposing to discuss is the predisposing causes of abnormal reactions—those factors which go to the building up of the individual constitution. Here once again I think we are led to draw a lesson from what is known of the causes of human variation in intelligence and mental defect. Intelligence and mental defect are obviously very closely connected with the organization of the brain, and it

is in the organization of the brain that we must seek one of the principal factors in the determination of individual traits of personality, temperament and character.

Over by far the greater part of the range, once the level of the idiot and imbecile has been left behind, variation in human intelligence is preponderantly controlled by multitudinous genes of small effect; but within the range of the idiot and imbecile other causes are prominent, and these are causes of a type which we are wont to consider pathological. There are, for instance, the single genes of large effect, of which one of the most typical is the recessive gene of phenylpyruvic amentia. If the individual possesses but one of these genes, his intelligence is not more likely to differ from that of the average than is that of any randomly chosen member of the community. If, however, he possesses a pair of these genes, it is extremely improbable that his intelligence quotient will be above 60 per cent. As analogies of these conditions we may note the occurrence of the endogenous psychoses, which have been shown to have a genetical basis, and one which probably depends on a single gene. Apart from psychotic illness, a part of the total variance in temperamental traits may be accounted for in this way. Among the near relatives of schizophrenics, psychopathic individuals have been repeatedly found who show in common certain traits of personality—those we are accustomed to call schizoid. It is not necessary to detail them, or to point out that they have not yet been sufficiently described. The picture is, of course, confused by the appearance of psychopaths of heterogeneous types, present only because of the expected incidence of abnormal personalities caused by normal human variation. The psychopaths found in excess in schizophrenic families are, however, of a very different type from the psychopaths likely to be found among the families of manic-depressives, where we see instead chronically hypomanic individuals, sufferers from a lifelong neurasthenia and mild depression, persons who swing between these poles and are never able to maintain for long an affective equipoise. In the same way we find among the relatives of epileptics, persons who, though themselves never subject to overt motor manifestations, show tendencies to mood variations of a more explosive kind, to impulsive activities, and other traits commonly seen among epileptics themselves. The psychopathies which are related to the endogenous psychoses may therefore, like the psychoses themselves, be the results of single genes.

Prominent among the cases of severe mental defect, we may find not only the effects of single genes, but also the effects of gross environmental disturbance, of birth injuries, infections of the brain and meninges, diseases of unknown but environmental aetiology such as Little's disease. These, too, have their analogues in the temperamental field. Disregarding the frank psychoses, such as general paralysis, we see profound changes in the temperamental constitution and the personality wrought by brain trauma, the so-called post-traumatic personality, known for its tendency to headaches and hypochondriasis, to neurasthenic reactions, to an explosivity of temper. The changes in personality caused by deliberate and localized destruction of brain tissue, such as prefrontal leucotomy, are well known, though still in need of much further investigation. Resemblances exist between these abnormal

traits of known organic pathology and those which arise endogenously ; manifestations of a hysterical kind are particularly well known in frontal syndromes.

It would I think be superfluous here to go into or even to mention all the possible causes of temperamental abnormalities along known organic lines. Some of them, such as alterations in the balance of the endocrine glands, are clearly of great importance but still very obscure in aetiology and mechanism. Despite the efforts of psychoanalysts and psychiatrists of psychodynamic leanings, the effects of psychological causes also remain far from well defined. It is indeed extremely difficult to disentangle them from genetical causes. If a child has a highly abnormal early upbringing, it is probably because his parents have themselves been abnormal personalities ; and in this case abnormality may have evolved in the child along either of the two paths, environmental or genetical. Methods of research exist, such as the investigation of foster-children, which could help in the disentangling, but they have serious difficulties of their own. Nevertheless we may see the effect of environmental causes of a psychological kind in influencing the development of personality at times in fairly pure culture in the clinical field. Observations of this kind were common among the traumatic neuroses of the war. After some traumatic experience the man might be left still, as far as he was aware, well enough, but with a heightened susceptibility to stimuli of a number of kinds. After a period of worry he might suffer the recurrence of nightmares ; his temper might take on an aggressive or explosive quality previously lacking ; with minor physical ailments there would be a more pronounced tendency to hypochondriasis, etc. The constitution, used in any practical sense of the term, was altered for the worse, although this alteration might itself prove to be of a temporary character.

Observations like this underline the undesirability of viewing the constitution in too static a way. There is no point in distinguishing too narrowly between, for instance, the genetical make-up and factors of an environmental kind. Genetical effects are changing constantly throughout life as genes hitherto latent begin to make their effects felt ; often they will need some specific environmental cause to be brought into the foreground. There is, for instance, a genetical basis for the tendency to delirious and confusional reactions, but it can only show itself when the particular environmental constellation of circumstances is present. The environment, too, throughout life is constantly moulding the personality and its dispositions to particular forms of reaction. At any one time we can only usefully consider what is the constitution at that time, and not what its theoretical components might be.

But when all is said, the single causes of profound modifications of the constitution and personality are unable to account for the greater part of human variation in the temperamental field. For this, as with intelligence, I believe we must go to the genes of small effect, to the total genetical make-up as the principal known source of a sufficient degree of variation. This is not only on *a priori* grounds, although I think it would be very difficult to imagine that factors of the same kind as are known to produce profound effects in most other branches of physiology, in stature and in intellect, could be completely ruled out when we came to the emotional field. We have a considerable body

of direct evidence that the total genetic make-up is of great significance for personality. This evidence is of course derived from familial relationships, and related to two aspects, which we may call those of specificity and non-specificity. On the first aspect we have striking evidence from the study of uni-ovular twins. The work of Lange, Kranz and Stumpfl on criminal twins has shown very clearly that the basic framework of the personality exhibits a very high level of similarity in uniovular twins, although the twins in their social relations may show superficial differences. The alteration of views that occurred with time is of interest here. Lange was inclined to think that heredity alone could account for criminal behaviour, and he spoke of "crime as destiny." A much less rigid view was reached by Kranz. Careful inquiry showed the significance of environmental and psychological factors, like family traditions, in determining such overt reactions as criminality. But even where there were differences in social behaviour, these were manifestations of similar personalities reacting differently to different environments; the personalities themselves were very much the same in all traits to which a psychiatrist could give a name. So it seems that the contribution made by heredity to the development of character is very important; but evidence from twins tells us nothing about the nature of the genetical equipment involved, and whether it is dependent on one or many genes.

However, evidence of a different kind shows that we are not here concerned with the operation of single genes of large effect. It has so far proved impossible to discover discriminant factors which will separate cleanly from one another the hysterical and the non-hysterical, the anxious and the phlegmatic, the obsessional and the unobsessional. Wherever we approach the issue we find normal distributions and differences in degree. Furthermore there is the factor of non-specificity. When the relatives of neurotics or psychopaths of any particular kind are investigated, we find not only an excess of personalities with abnormal reactions of an exactly similar kind, but also an excess of those showing abnormal reactions of different, although to some degree related kinds. The work of Brown (5) in this field is particularly striking. I believe the evidence is already strong enough to allow us, while accepting the importance of heredity, to reject the single gene hypothesis and to adopt that of multifactorial inheritance.

It is now too late to consider in detail the consequences of this view. It leads us, I believe, to a more comprehensive and more balanced view of the problems of neurosis and psychopathy than we have at present. Above all, it does not lead us to a static view of the personality, where all is regarded as rigidly set and beyond the possibility of exterior modification. As far as treatment is concerned, while a realistic caution is imposed, fields already found promising of therapy along both physical and psychological lines are left open to exploration.

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