ASPECTS OF TEMPERAMENT IN ADOLESCENT MALE OFFENDERS.*

By H. T. P. YOUNG, M.B., Ch.B.Ed., Medical Officer, H.M. Prison, Wormwood Scrubs.

A CONSIDERABLE diversity of opinion exists on the definition of that part of the personality which is known as temperament, and some authorities go so far as to say that no practical advantage is to be obtained in differentiating it from character. Temperament, nevertheless, is the means in every-day use by which strangers provisionally gauge the extent of their affinity to each other.

The nature of it is a matter which has lent itself to philosophical abstraction from remote times, and while its consideration by historians, theologians, phrenologists, biometricians, anatomists, physiologists and others has resulted in a variety of conceptions, these lines of approach have all tended to converge on a central point of common agreement. In doing so they have paved a way which should ultimately lead to a clearer understanding of the subject than would otherwise have been possible.

Any attempt to recapitulate the work of the various schools would much exceed the scope of this paper, but it is possible to outline broadly the developments leading up to present-day views. The temperaments described by Aristotle were based on the Hippocratic humoral doctrine of four types—those of the blood, the phlegm, the yellow and the black bile. These were again classified by Galen, and after various vicissitudes were reaffirmed by Kant under the following designations: the sanguine, phlegmatic, choleric and melancholic, the first and last of these being associated more directly with feeling and the others with the emotions.

Temperamental variations were formerly ascribed to the condition of the blood—Aristotle adducing its coagulability as the cause, and Kant attributing them to its flow and temperature.

The terms used by Kant have a descriptive value which many other classifications lack. Thus the sanguine temperament, as its name implies, signifies a careless, light-hearted type of pronounced but gradually decreasing determining capacity; the phlegmatic represents those who show reduced excitability and motivation, coupled with a strong determining disposition

* Read at the Annual Conference of Prison Medical Officers, April 3, 1937. Published by the authority of H.M. Prison Commissioners, though it does not necessarily represent their views.

which slowly diminishes in intensity; the choleric indicates the type of increased motor and sensory excitability, with a weak determining disposition, requiring a greater effort to bring an act to fruition; and the melancholic describes the individual of weak determination and diminished sensory and motor excitability, resulting in a general ineffectiveness.

Although there is ample historical evidence of the consideration which the subject has received in books and learned dissertations from medieval times onwards, it is not proposed to do more than allude to the fact here. The work of Lavater on physiognomy in the eighteenth century may, however, be mentioned, for although he advocated the assessment of temperament in the "thermometric" manner, thus suggesting a connection between it and the body temperature, he considered it impossible to classify the various types by the preponderating chemical ingredient of the blood, since the effect on the bodily systems and appearance of certain salts, even in minimal amounts, could not be ignored. The phrenologists Gall and Spurzheim also introduced fresh conceptions in their correlation of mental and psychological characteristics with the physiognomical configuration, and Laycock, followed by Paget, laid stress on its periodical aspect. The latter emphasized the view that "each organ has its time rate of rise and decline in activity", instancing cases of families in which there was a rapid attainment of maturity followed by a slow decline, and the reverse of this process in others.

In recent times Sigaud established four types described as the respiratory, the digestive, the muscular and the cerebral, in accordance with their reaction to atmospheric, alimentary, physical and social stimuli.

The number and variety of methods of estimating temperament, of which only a few instances have been given, testify, therefore, to the incompleteness and general inapplicability of any one classification, but the fact that common usage still adheres to the original nomenclature in describing the different varieties is of special interest, in view of the trend of modern biochemical research, particularly that in connection with the chemical agencies at the synapses. From these neurological studies it has been inferred that temperament and the endocrine gland system are closely linked.

Thus, Kretschmer, combining the anthropological and hormonic features of his cases, has correlated his two principal temperaments, the schizothyme and the cyclothyme, with physical characteristics classified under four groups—the asthenic, athletic, pyknic and hypoplastic. Even these types cannot be regarded as capable of fulfilling every requirement, for in adolescents particularly it may be difficult to determine the physical group in which an individual should be placed, and it requires a courageous diagnostician to decide to which of the temperamental types some cases belong, or, indeed, if a case of early mental disorder is undoubtedly schizophrenic or manic-depressive, for it is not very unusual to find symptoms compatible with either in the same person.

It is generally accepted, however, that temperament is a characteristic feature of the personality resulting from the interaction of two diatheses, the physical and the psychical, and linking affection and conation with the deeper physiological levels. Its effect is regulated by the physical state and mental disposition of the individual, and emerges when thought produces, or tends to produce, deliberate or impulsive action. Temperamental trends have a prevailing direction in each case, and while they are inborn, Osler emphasizes the modifiability of temperamental tone by voluntary effort, and McDougall draws attention to its susceptibility to environmental influences. There is also evidence to show that it is remittent in its action.

Heterogeneous as temperamental types are, it is the pattern only which is peculiar to the individual, for the psychical and physical dispositions from which it arises are common in different degrees to all persons. A pattern, as, for example, in a lattice, is formed by the intersection of two series of parallel lines, and to depict temperament by this means it is necessary that both psychical and physical diatheses should be represented. That attempts were inadequate to classify it by the degree of subjectiveness or objectiveness present or by means of the introversion-extraversion scale, independently, was recognized by Dr. Beatrice Hinkle, who employed both criteria as a means of evaluation.

In the writer's view, both subjectiveness (which McDougall regards as closely related to a strong emotional constitution) and objectiveness (which is allied to a weak one), and also the introversion-extraversion scale, approach too closely to one aspect of temperament to comply with the metaphorical pattern if they are used in conjunction, and it is suggested that a more characteristic one may be envisaged by the employment of one of these scales, such as Jung's, and another criterion more closely related to the physiological aspect of temperament. A hypothetical design formed in this way cannot be set down in diagrammatic form, but this is not considered disadvantageous as the diathesis it represents is not amenable to this method of illustration.

Before dealing with it, however, a brief reference may be made to the acceleration and retardation of mental processes brought about by psychophysical interaction. The former is characteristic of the extravert in whom resistance is reduced at the point of transition from thought into action, while the latter is a feature of the introvert who has difficulty in overcoming this resistance. Extraversion and introversion, however, are not necesarily permanent states, for their fixity varies from time to time in the life of the individual, and while the extravert aspect is involved in the relationship between the self and other individuals, the introvert tendency is concerned with the subjective aspect only. The measure of restraint in the expression of those emotions and impulses provoked in any situation diminishes with the degree of extraversion present, while the introvert conceals himself behind a screen of reflection and brooding and thus avoids their overt expression. Absolute

introversion and extraversion are the extremities of a scale, the features of which become less distinct as they approach the middle zone.

Recent work in America has shown that offenders, particularly those of the recidivist type, tend to converge towards the middle of the scale, but this observation does not necessarily differentiate them from the unconvicted classes of similar age and status, although these are stated to show more marked extravertive or introvertive traits. Indeed, the fact of imprisonment may be a cause of weighting the scale in favour of introversion owing to certain influences to which it is proposed to allude subsequently.

In an attempt to classify 1,000 young offenders between the ages of 16 and 21 years by means of this scale, figures have been obtained at Wormwood Scrubs which can only be advanced with considerable caution. It was found that out of this number 130 might be classed as extraverts, 344 as introverts, the remaining 526 being placed at some indefinite point between them. The grouping of these cases bears a superficial resemblance to the observations already referred to, but while a number of them may have committed several previous offences, none can be classed as recidivists in the usually accepted sense, for relatively few had experienced previous terms of imprisonment, and recidivism implies a habitual relapse into crime which occurs at a more mature age.

It will be seen that as the sole means of assessing temperamental qualities this classification is of limited value, but it is suggested that this does not justify the rejection of temperament as a separate entity of practical utility. Workers in vocational selection have given considerable attention to the matter in conjunction with the mental, intelligential and physical aspects of their cases, but it would seem that they approached it by estimating such qualities as ambition, sociability, cheerfulness, complacency, perseverance, energy and others, thus combining the features of temperament with those of character.

Reference has been made to another phase which has been considered in the past, but which on the whole has received less attention than it deserves. I allude to the periodic aspect of temperament, which appears to have given way to more materialistic psychological views, but the latter, nevertheless, do not afford an adequate explanation of the fact that mechanisms formed to deal with specific situations are not invariably so used. It is therefore proposed to examine this point in some detail in connection with temperament.

The derivation of the word "temperament" indicates the association between time and measurement. This division or apportionment in the time factor may be exhibited in many ways, and the strength or weakness of the responses to similar conditions may be observed to vary in the same individual at different times. Certain external agencies also are liable to a similar periodical movement.

Thomas Laycock in 1840 summarized the views held by some of those of

his time in a *Treatise on Nervous Diseases in Women*, in which, after referring to the periodic movement in seasonal, astronomical, atmospherical, tidal and other phenomena, he states that "not only are there periodic influences everacting upon man, which are derived from without, but from the moment of conception (and perhaps before) series of changes commence, enchained by definite laws and depending for their due development upon agencies seated in the individual organism". He then deals with the menstrual cycle, gestation and the chronological sequence of embryonal development, the septennial phases of life, puberty, the climacterium, sleeping and waking, the respiratory and cardiac rhythms and recurring functions and appetites, and after alluding to the periodic character of certain nervous disorders he says, "every vital act is more easily performed the oftener it is repeated"—a statement which needs no emphasis.

The disturbance of the rhythm of many of those "tendencies seated in the individual organism" results in overt interference with health. Periodicity in certain extraneous phenomena, for example that of night and day, can be readily appreciated, but the more indistinct the variations become the less readily can mental and physical reactions be correlated with them until the causes themselves cease to be recognizable and only their effects can be registered.

An instance of glandular insufficiency may be quoted to illustrate the effect on temperament of an organic disorder which was unappreciated by the subject as it had no adverse influence on his health, but was nevertheless directly concerned with his delinquency as a result of its effect upon his development:

C. P. S—, æt. 17 years 9 months. Convicted of stealing from churches. Sentenced to three years' Borstal detention.

This lad was in fair physical health, but showed extremely retarded physical development, having only just attained puberty. His physique was equivalent to that of a boy of fourteen.

His intelligence was fully up to the normal for his age. There was no evidence of psychoneurosis or psychosis, and he refused to accept any suggestion that he was not normal in every way.

He could give no explanation of his thefts, although difficulties at home with his father and stepmother might have been contributory causes. He was described as impudent, plausible, irritable and apt to threaten his brother—all being traits which would be associated with an intelligent lad who was physically retarded and labouring under the stress of a delayed adolescence. These, together with his delinquency, also suggested compensatory behaviour from a feeling of physical inadequacy in an extraverted personality.

The following case exemplifies a psychopathic or neuropathic reaction of a delinquent type to a severe physical trauma:

M. H. P—, æt. 19. Sentenced to three years' Borstal detention for theft. The father was dead, the mother alive. An uncle died in a mental hospital

and an aunt died of tuberculosis. One brother had fainting fits. There was no other morbid family history.

The lad had good but indulgent home surroundings. He was educated at a secondary school, where he was frequently top of his class and was captain of cricket and football. He left there at 15½ years of age.

He was somewhat reserved in manner. He studied Russian, Chinese, Spanish, German and the Indian Vedas, and was interested in foreign customs and religions.

His sex life was not abnormal, and he had a girl friend for a short period. On leaving school he joined the Army and got on well. After eight months' service he passed an examination for entrance to Sandhurst. A week later he fell in the gymnasium and injured his spine. He was detained in a military hospital for four months, when he was invalided out of the Army with scoliosis. He became depressed at the loss of his career and developed attacks of pain and faintness, for which he underwent a manipulative operation at a large London hospital. He then developed a desire to inflict injuries on himself by cutting, which afforded him relief and satisfaction. This desire was not apparently of masochistic origin, and he denied feelings of guilt or unworthiness. He was treated for this for a considerable time by a psychological specialist at the same hospital, and was attending there as an out-patient at the time of arrest.

Some improvement took place at first and he went to work, but after five months he felt physically incapable of going on with it. After six months' idleness he began work in an office, but gave this up on account of spinal pain. He then remained out of work until his arrest.

He apparently appreciated the fact that his symptoms were not entirely due to organic causes, for he read books by Jung, Freud and Adler, but he could find no case analogous to his own. He slept badly, and was constantly labouring under a feeling of frustration and apprehensiveness about his spine. He also stated that he had a short period of amnesia, possibly a fugue, twelve months before arrest.

He was then bound over for stealing jewellery from a friend with whom he was staying, and during his probation he stole 3s. from another friend. For this offence he received his present sentence. He stated that he was not in need of money on either occasion.

While under observation he inflicted numerous wounds with various sharp objects on the right forearm on several occasions. The wounds were multiple and at times were severe. He interfered with his dressings occasionally, and once applied his bandage as a tourniquet, causing swelling of the hand. He also burnt his right wrist with a hot dinner-plate. Advice, warning and restraint had no beneficial effect. He insisted that the attacks were compulsive, and although he knew when they were coming on by preliminary head pains on the left side, he could not always restrain himself, although he often rang his bell when he felt an attack impending. He said that the injuries caused him relief, and that if he resisted the impulses he felt ill and depressed. This explanation, however, was of doubtful value.

The lad was depressed, introspective and introverted. His Columbian group test was 90%.

The frequency of the attacks has shown a marked diminution at the Borstal institution to which he was transferred. Apart from slight scoliosis, which was not considered sufficient to cause the symptoms he described, his physical condition was good.

The case of C. W— illustrates an introverted reaction to a known psychic trauma:

He was æt. 18 years 11 months. Sentenced to three years' Borstal detention for begging and breach of probation.

His mother died during his childhood. The father and stepmother with three older siblings and one half-brother were living. There was no known morbid family history.

The lad gave a history of fainting attacks, regarded in the Army as epileptic, but observation showed no evidence of epilepsy, insanity or mental

deficiency. The Columbian group test was 77%.

Scars of old osteomyelitis of the leg were present, but there was no sign of organic disease. He was dull and morose in manner and his conversation was whining. There was also evidence of sulkiness, bad temper and antisocial habits, indicating a lad of markedly introverted propensities. He was devoid of interest in his surroundings, and lacked initiative. This reaction was regarded as attributable to his environmental difficulties.

He felt himself to be unwanted by his parents from the time of his father's second marriage, and he stated that he was harshly treated by his stepmother, who alienated his father's affections. This was corroborated by inquiries made

on behalf of the nautical school he subsequently attended.

The lad had been out of touch with his parents for three years before arrest. His delinquent history began at the age of II, when he stole a bicycle to assist him in delivering papers, and when it in turn was stolen from him he ran away from home to avoid punishment for losing his work, and was eventually arrested for being without visible means of support.

He was sent to the nautical school until $15\frac{1}{2}$ years of age, when he joined the Army, being discharged after three months because of a seizure. He again wandered from home, and left his next job one month later, after stealing £3, because his wages would not support him. On his return from a trip at sea he was charged with this, and returned to the nautical school. He was later bound over for two years for failing to carry out the terms of his licence.

After re-enlisting in the Army and committing further delinquencies he received the present sentence. He stated that he felt relieved at this, and it was anticipated that his affective life would revive at Borstal. After-care was regarded as being as important as training.

The following case is an example of a reaction to an adverse external influence, which was unidentified by the subject but which led nevertheless to persistent delinquency:

B. C. F—, æt. 19. Sentenced to three years' Borstal detention for breaking and entering.

This lad came under observation in consequence of his perverse conduct at a Borstal institution.

He was the illegitimate child of a woman, æt. 20, of good social status, and an Army officer who had held administrative posts in the colonies and was killed in the war. There is no known history of antisocial conduct or other abnormality on the part of either parent. The lad had no recollection of his mother, and knew of no other relatives. The mother's subsequent history is unknown.

He was brought up in an orphanage until the age of two, when he was adopted by a respectable couple in prosperous circumstances, the adoptive father being a manager of a big stores in the provinces. The only son had died, but there were two older daughters living. The home had, it appeared, a rather Victorian atmosphere. The father was a man of strong convictions, and required a satisfactory reason for every request made by the boy. His methodical habits were exemplified in the way he preserved and docketed all letters from and about the boy. This attitude may have led to repressions in the lad, although he was fond of his home and was happy with his adoptive mother and one of the daughters.

Until the age of 15 he was ignorant of the fact that he was not a member of the family and was of illegitimate parentage, although both his adoptive sisters knew of it.

While at home he was a source of anxiety from an early age owing to his difficult and uncertain conduct. He attended day schools until the age of 10, when he went as a boarder in the preparatory school attached to one of the lesser public schools, where he remained for four years. His conduct there immediately gave rise to adverse comment. He ran away, broke rules, stole money from other boys, neglected his work and was frequently punished, without effect. He was moved into the senior school at the age of 14, where his irregular conduct continued. He was a failure at games, and he did not apply himself to his work. In spite of this he stated that he liked his house, the boys and the masters. He admitted that he gave no thought to the consequences of his acts. He interested himself in a superficial way in Egyptology and other unusual subjects, but persevered in none of them, and had no ambition of any kind. He committed numerous petty offences, on which punishment, threats or kindness had no effect. He occasionally practised masturbation with heterosexual fantasies, but not as a result of any serious sex trauma. In consequence of his unsatisfactory conduct his adoptive father told him, at the age of 15, of his parentage, and from that time the lad has had the knowledge of his illegitimacy constantly in mind, although he is not known to have discussed it spontaneously. He assumed his correct name when he left school. At the age of 16 he was removed, at the headmaster's request, for stealing. The lad was sorry to go. He was then placed as an apprentice in a department of his adoptive father's store, and attended night classes at a technical school. He did not like this, as he felt that he should have been given a superior post. His conduct again became unsatisfactory. He sold his bicycle and said that it had been stolen, he failed to attend to his work or classes, and, after six months, as he appeared to be quite unfitted for the business and showed an interest in flying, he was apprenticed to an aeroplane engineering firm of good standing. While there he kept the fees which he should have paid for his technical classes and spent them on cinemas, and he evaded his work. He also associated with a married woman and had sexual intercourse with her and other women. After taking away motor cars without leave on several occasions to entertain women friends, he was eventually charged with stealing a car and was bound over. His apprenticeship was thereupon cancelled.

It was then decided that he should prepare for matriculation, but this was abandoned when a friend of his adoptive father offered to take him at a premium into his engineering business with prospects of an interest in the firm. Towards the end of the first six months his feckless conduct returned. He pried into private cupboards and made trouble among other employees.

He also made a childish attempt to hold up a shop assistant with a toy revolver because he needed money. He was, therefore, discharged.

His adoptive father then told him he could do no more for him and threw him on his own resources. He first sold articles from door to door, and then obtained employment in a shop for a week, when he stole £2 and absconded. The Labour Exchange then found him seasonal employment at a seaside resort, but he was paid off after a fortnight. He drove a tradesman's van for three weeks at a wage of 40s. a week, and while so employed he committed the offence, in association with another lad, for which he received his Borstal sentence. He was not in debt at the time, although he had frequently received money from his father to pay his debts in the past.

At the Borstal institution he soon became restless and eventually stole a car and went home. On examination the lad denied that he had been reproached about his illegitimacy at any time. He admitted that he had always successfully relied on his adoptive father, employer, landlady or friends to get him out of his difficulties. He had no plans for the future, as he anticipated that his adoptive parents would come to his assistance on release. He was of a somewhat effeminate type, suggestible, self-indulgent and lacking in foresight; his sentiment development and instinctive drive were poor.

His general health was good. He had had an operation for appendicitis at the age of 10, but had had no other serious illnesses or accidents. Apart from his defective vision his physical condition was sound. He denied any addiction to alcohol, but admitted that he was a heavy smoker. There were no signs of epilepsy or insanity. He was an extraverted type of superior intelligence (Columbian group test 88%) and was not lacking in general capacity. There was no evidence of mental or moral deficiency.

The lad's subsequent conduct has shown little change. Although his ability and intelligence are regarded as considerably above normal, he has not made use of them in his work, and has failed to progress. He is involved in any insubordinate conduct that may take place, he has made foolish attempts to abscond, and he will not undertake to abstain from further delinquency on release unless his adoptive father continues to help him.

This case is recorded in detail for the following reasons:

- (1) The lad's misconduct began many years before he learned of his illegitimacy and adoption.
- (2) His adopted sisters, who were æt. 9 and 10 respectively at the time he entered their home, were consequently aware that he was unrelated to the family and also probably that a veil was drawn over his antecedents, and they could not have been expected to be able to disguise this knowledge from the lad entirely.
- (3) A child may not be able to avoid a feeling of alienation from his surroundings when he is brought up by people other than his own parents, in spite of their apparently kindly disposition towards him. This feeling of alienation is likely to be increased by the stigma of illegitimacy, however carefully it is intended to conceal it, though it is not of serious consequence to the children of irregular unions who have a parental upbringing. It is, however, comparable with that which is found from time to time in the children of marriages which are grossly incompatible, either in status, religion

or race. In all of these the disparity produces a state of uncertainty in the mind of the offspring which may show itself in capricious or perverse conduct in childhood, and in antisocial reactions such as prostitution or licentiousness in later life.

(4) It is impossible to avoid the presumption of inherited abnormality in this case, though it is by no means inevitable that inherited abnormality necessarily implies later delinquency. Indeed, it is recognized that the hereditary factor is not so essential to the manifestation of antisocial acts as some writers would suggest—for example, Lange in his investigation of twins—for heredity cannot be held responsible for the implantation of any specific tendency to general delinquency.

In the present case no family history is available, but it is known that the adoptive father, who could be relied upon to investigate such a history thoroughly as he clearly intended the boy to take his son's place, and brought him up accordingly, had some personal knowledge of the lad's parents, which did not, in fact, deter him from carrying out his plan.

(5) The case is regarded as an example of aberrant personality type with defective sentiment formation, whose deviation from the normal was probably much increased by his temperamental constitution and circumstances which were unfavourable to him.

It also illustrates a further interpretation of temperament to which a brief allusion may be made.

Lewy, in his classification of types into the skilled, the clumsy, the asthenic and the tetanoid, adduced the differences in "fundamental tempo" in individuals as a cause of variance between them. It is thought that it may also explain some of the difficulties which adolescents may experience when removed from one kind of environment to an institution largely composed of lads drawn from another.

Fouillée also referred to the "rhythm of nature" exemplified in the alternating processes of re-integration and disintegration, and he deduced therefrom his saving and spending temperaments. In accordance with these two connotations the words "rhythm" and "periodicity" may be employed in a wide and comprehensive sense, and I propose at this point to consider them in greater detail.

The list of states in which periodical variations occur may, of course, be widely extended to include conditions as diverse as dipsomania and the drug addictions, the phases in the evolution of the sex and other instincts, fatigability and the alternations observed in nervous and mental states, such as the compulsive-obsessive psychoneurosis and the manic-depressive psychosis among others.

As an example of the effect of periodicity, imposed from without, the diminution in the frequency of fits in cases of epilepsy undergoing institutional care may be cited.

Again the twin subjects of epidemiology and immunity are interesting in this connection, for in certain infections the former shows periodicity on the part of the invading parasite, and the latter on that of the host. The coincidence of increased virulence on the one hand and increased susceptibility on the other results in a general way in a successful synchronization, the effect of which may follow a definite periodic course. Malaria and encephalitis lethargica may be quoted as examples of different types.

There is little difficulty in recalling examples of this kind in which more or less specific rhythmic responses at physiological levels are induced by known agents, but in rhythmic processes of other types, such as are seen in the migration of birds, the cause is not always clear, for in certain species this has no apparent connection with the reproductive or self-preservative instincts. The upward fluctuations in the frequency of certain offences, attempted suicide, for example, occur at certain times and seasons and are generally associated with known predisposing causes, but the sharp rises in the total crime rate, although due principally to an increase in acquisitive offences, are not necessarily the result of poverty or prolonged unemployment, nor can the fall in rate in time of war be ascribed solely to the increased employment available. It is a significant fact that destitution among adolescent offenders is responsible for no more than 6.5% of the acquisitive offences committed by this class of delinquent, among whom crimes of acquisition account for 96% of the total. In another series of 500 consecutive cases 231 or 46.2% were unemployed and 269 or 53.8% were employed at the time of arrest. Of the total who were unemployed at that time, 33.4% committed offences within one month of losing their work, 16.0% within two months, the remaining 50.6% having been unemployed for more protracted periods.

The phrase "fundamental tempo" which has been mentioned previously is as liable to misinterpretation as are these external agencies, but it is sometimes to be observed when comparing rural and urban types. In the former there is frequently a retardation in psychomotility which is not invariably associated with differences in intelligence. This is reflected in the bodily movements, which are apt to be slower, and in the mental processes, in which there is a less rapid response to stimuli. The intolerance of town life in the one case and of country life in the other appears to be partly due to the difference in periodicity between the individual and his environment.

In this connection it is interesting to note that the migration of young workers from the rural districts of Japan towards the highly organized factory life of the towns is followed by an almost equally large movement of similar migrants in the reverse direction, suggesting that although rural workers are prepared to undergo for a certain time a routine which is highly systematized, they are unwilling, even at a very considerable sacrifice in their earnings, to accommodate themselves indefinitely to the exacting rhythm of industrial life.

Again, there are certain rare types whose rhythm synchronizes best with

that which exists in states of serious emergency, and therefore brings them into optimum relationship with men and events only at those times. In these "states of intellectualized emotion dominated by a fixed idea" (Ribot) they are enabled to alleviate their desire for fulfilment, their purpose is brought into focus, and ability and energy are released which in other circumstances are checked at their source. They are, in fact, reacting to "key experiences". Types such as these are not readily adjustable to ordinary conditions, and it has been said of them that "such men, though doomed to destruction by the timid herd, grow after death to the full proportion of their greatness".

In a case of this kind the causes of discord need no description.

A more emphatic, though less permanent, type of reaction is seen in lads who embark on a course of active resistance to discipline which they are well aware is to their disadvantage and contrary to reason. This courting of punishment or disfavour may, of course, have rational but ulterior motives in other cases, such as attempting to obtain a change of location or labour, for example, but in the condition alluded to here there is a vicious circle sometimes imposed on a paranoid psychopathic background for which a means has to be found by which they can extricate themselves. Vigorous methods of dealing with this situation are apt to lead to overt antagonism and inconsistency in conduct in the extravert, which may prejudice his training, or, in the introvert, produce a degree of resentment which may have permanent antisocial consequences. Adolescence is the period of life when the urge to give expression to individual standards of conduct, unmodified by convention, is at its strongest, the result being, in many cases, a failure to effect a compromise between the utilitarian and the ideal points of view.

An example of the vicious circle was seen in the case of a lad (C. L—, æt. 17) who had served about twelve months of his sentence at a Borstal institution before he came under observation. On reception there he had given a good impression, but his attitude underwent a rapid change, and from being frank, willing and amenable he became violent, hostile, defiant and threatening. He resented criticism, was insolent and insubordinate to those in authority, he refused work and courted punishment. In the intervals between his outbreaks he admitted that he was wrong, but this had no effect on his subsequent conduct. His behaviour became so unreasonable that it was obvious that nothing further could be done with him in the existing surroundings.

On examination he gave the following history:

He was the elder of two legitimate children. An older illegitimate son was the favourite in the family, and the lad resented the way that his parents upheld this son. He grew stubborn and difficult, and came to be regarded as the black sheep of the family. This led to his being blamed for offences which he had not committed. On one occasion he was punished for stealing a shilling which he asserted that his sister took, and he remained resentful of the punishment he received.

At the age of 10 he succeeded in obtaining a scholarship, but at the secondary school he got the impression that he was looked down upon as a working-class lad, and he started truanting. For this reason he was sent to an industrial

LXXXIII. 20

school, without, in his opinion, any attempt being made to find out the cause for his misconduct. There he was frequently thrashed for bed-wetting—a long-standing complaint, from which he still suffers. He accordingly absconded and went home.

At the age of 14 he had a severe head injury. He became more wilful and reckless, associated with a gang, and was ultimately convicted and sentenced to Borstal detention. This sentence he regarded as unjust, as he was never tried on probation.

On his reception at the Borstal institution he disliked the nature of the work he was given, feeling that he merited a more trustworthy job. He resented being teased by other lads, though his arrogant attitude and quick temper provoked it. He believed that he was picked out by the leaders for unfair treatment, and he objected to those in his own position being put in authority over him. He thought that his friend did not treat him with sufficient respect in public.

His conduct led to his becoming avoided by other lads, though they were not averse to suggesting fresh forms of defiance for him to carry out, and he was unwilling to risk their taunts. He sacrificed a trustworthy job as he felt unable to withdraw from the attitude he had adopted.

At first he derived some satisfaction from the notoriety which a rebel is apt to acquire, but by the time he realized that he was merely a butt for others and was, in fact, performing for their amusement, he had gone too far to return without sacrificing more of his self-esteem than he was prepared to do.

His desire for recognition was, he felt, being thwarted by his having to be one of a crowd, by his subordination to senior lads and by the way he was treated by his friend.

The position was aggravated by the fact that he had a talent for entertaining, which gave him opportunities for asserting himself. The forces impelling him were, however, too strong for him to keep his self-assertiveness within reasonable limits, and this naturally provoked the opposition of other lads. To justify himself he responded by open defiance of authority, for which he was punished. He found that punishment relieved him of the necessity of supporting his reputation in the former way, and it also added fresh fuel to his feeling of injustice. The probability of his escape from his position by continued misconduct next occurred to him and a transfer to another institution became his objective. This was attained, and after a few weeks of semi-isolation there he abandoned his previous attitude and ultimately returned to complete his Borstal training.

He served the full sentence, but his conduct, did not improve. Shortly after he returned home he enlisted in the Army, but a few weeks later he overstayed his leave, stole money from a gas-meter, and his Borstal licence was revelted.

After a further period of special training he again went home, where he was soon convicted of housebreaking. A year later he was sentenced for stealing.

He then rejoined the Army, making a false attestation, and was doing extremely well until his antecedent history came to light when he was discharged.

Nothing further has been heard of him.

Normal periodicity may be seriously affected when it is disturbed by a mechanism described by Mercier as parasitic, in which the piling up of one

imperative idea on another of the same kind occurs, until a state of supersaturation exists with its attendant discomfort. Relief is only obtained by an act which may be contrary to the intelligence and volition.

These compulsive ideas, which are manifested in numerous ways, recur at intervals which may be related not only to the rhythmic changes in the body and mind, but also to such periodical conditions as the climate and season. Obsessions have been classified into three groups—those of indecision, fear, and irresistible impulse. All these processes show, in one way or another, comparable periodic features. Thus the rituals which are not infrequently seen in the latter type, following more or less closely a regular pattern essential to the full development of the process, are other instances of the control which rhythm may attain when imposed on abnormally susceptible persons.

The following is a case in point:

XYZ, charged with an indecent assault on a female and common assault. The family history was negative.

This man obtained a scholarship from an elementary school and received a secondary school education up to the age of 16. He then became a Government employee, and having passed the necessary examination for promotion was earning £5 a week at the time of arrest.

He sustained a cut head in a motor accident some time before, but there were no adverse sequelæ, and he had had no serious illnesses. There was no history of alcoholism, epilepsy or insanity, and he denied having had venereal disease.

He gave a history of masturbation beginning at the age of 20, after consorting with a girl of 13, and the habit had increased in frequency during the two years before arrest. Shortly after this event he committed an assault on a girl by whipping, to which she consented, and the charge was brought when this sadistic practice had been repeated a large number of times with five other girls. Coitus did not take place on these occasions. The whipping or its imaginary substitute became a necessary part of the masturbatory act.

In the course of time he had evolved a ritual consisting of an exact formula in words and actions, which he caused the girl to follow at each whipping, though gratification of an almost equivalent degree was obtained by having the verbal formula repeated to him over the telephone.

The sentence used was a long one, and both actors had to be word-perfect if the desired result was to be obtained.

The dependence on a particular sequence of words is indicative of the necessity for some additional recurring factor to complete the process once it has been initiated. This factor may be an extraneous one. The phrases used here are not only for the purpose of recalling a pleasurable memory, for the fantasy itself could be revived by any similar series of words. As in the present case, however, these alone appear to be incapable of ensuring consummation.

Fully developed compulsive states are not very frequently found among adolescents. In spite of the fact that they are of congenital origin in certain

cases and the propensity is observed in childhood, they rarely make their appearance until maturity is reached. Claustrophobia, although a condition likely to be precipitated by cellular confinement in susceptible cases, is rarely seen at this age in prison, and even abreactions such as those resulting in smashing up cell furniture, which might in some cases be associated with claustrophobia, are rare.

Among the reaction types to which a final allusion should be made are the schizoids and cycloids. The schizoids represent the extreme introverts, whose reaction at their failure to bring their environment into conformity with their needs, instead of adapting themselves to their environment, may be so severe as to compel them to seek satisfaction in a life of fantasy, terminating possibly in a fully developed schizophrenia and such rhythmic manifestations as stereotypy and verbigeration. The cycloids represent the extreme extraverts, whose periodical fluctuations of mood may become so excessive as to culminate in a fully formed manic-depressive psychosis.

The use of the word "parasite" in compulsive states denoting a consuming of the products of the mind by an invader, if the metaphor be taken literally, offers further support to the view that influences of many kinds which are in fact extraneous not only make their presence felt by the nature of their content but also by their rhythm, for the word "parasite" presupposes appetite, and appetite implies periodicity. The failure of the defence at certain times only indicates the presence of alternating strong and weak elements in it.

Enough has been said to indicate the extent and variety of conditions liable to a periodic rise and fall, and it would appear that voluntary effort may to some extent adjust the temperamental habit of the individual in this respect, so that conduct is not incompatible with the environmental demand. Failure to bring this about is one of the many causes of situational maladjustment.

The application of the foregoing thesis to the problems presented by the institutional treatment of adolescent offenders requires a brief allusion to certain points in the conduct of the institutions themselves.

It may be said that in situations where there is continuous control and close organization in every detail, the tendency to lessen the differentiation between one individual and another can hardly be avoided. While the trend of modern penal methods is to approximate conditions in prisons and institutions more closely to those of the social system at large, it is nevertheless true that where the segregation of a number of persons in an artificial environment has to be maintained, there are fewer opportunities for deviation from a prescribed line of conduct. This results in a routine the momentum of which is quickly apprehended, both by the staffs and their charges, by its uninterrupted rotation.

Prison routine, however, offers a solution to the difficulties in not a few types of offenders. The stable, subnormal delinquent is one. Among others are the constitutionally inefficient, who are described by East as devoid of initiative but "shrewd, able and willing workers under supervision, capable of appreciating their social obligations, but incompetent to deal with situations which demand the suppression of temporary desires owing to their passive inadequacy to negotiate life according to social conventions and the law's demands".

This incapacity to carry the responsibility for moral and other decisions is also seen in the reactions of certain drug addicts, rarely found among adolescents, who not infrequently attribute their rapid recovery of poise and confidence, after the immediate symptoms of deprivation have subsided, to the fact that they are not labouring under any obligation to decide whether they will or will not continue to submit to the withdrawal of the drug, whereas in public hospitals and nursing homes they are, in fact, the final arbiters in this matter. This transference of reliance on the support of one external agency to another provides a temporary solution to the conflict between hunger and fear, and results in a rapidly developing but transient form of institutionalization. The agency in this case may be the feeling of security against the consequences of a further infringement of the law, the anonymity of prison dress and the protection it affords, the steady and certain drive produced by the rhythm of the system itself, or more than one of these. Whether the precipitating cause of the addiction be physical or mental or due to contagion, the common attitude in all is a refusal to face reality. That imprisonment is recognized by some drug addicts to provide certain advantages, which public institutions do not possess, in relieving them of this obligation, is shown by letters received from unconvicted addicts requesting advice on the means of obtaining treatment under corresponding conditions.

There is, however, a more deliberate form of institutionalization, such as is seen in recidivists of the Borstal revokee type, who occasionally admit that they prefer the less varying conditions of a special institution to those which obtain at Borstal, because they require less effort to comply with them.

A distinction may be drawn, perhaps, between temporary and permanent institutionalization, for certain recidivists appear to prefer conditions of an unvarying kind while in prison. This reaction is not, however, comparable with that of some factory workers, who are stated to indulge in fantasy as a means of escape from the monotony of certain industrial processes, nor may it be directly compared with those who invariably seek monotonous work in order that their opportunities for fantasy-weaving may not be disturbed, for in other circumstances convicts may not resort to this practice. They differ also from persons of a simple schizophrenic type whose apathetic attitude to circumstances in general results in an absence of effort to resist conditions in any situation. It is, in fact, a form of response attributable to the periodicity of prison conditions.

The search for opportunities to indulge in fantasy-making may be assisted

by auto-erotic acts, as the following case of masturbation in prison, for the purpose of recalling a fantasy, suggests:

E. G. K-, æt. 20.

This lad's father died in a mental hospital, where he was undergoing treatment for an alcoholic psychosis. He had previously deserted his wife.

The lad was of slightly inferior intelligence, with a mental age of 13 years 4 months, but he was not considered to be certifiable under either the Mental Deficiency or Lunacy Acts.

He admitted that his offences had all been of a sexual nature, though his previous charges had generally been of another kind, and he was inclined to talk extravagantly and boastfully about his sexual exploits to compensate for his belief that he was regarded as an outcast.

He stated that he had an irresistible attraction for sexual excitation, and he had indulged this by auto-erotic, homosexual and heterosexual means.

He had been discharged from the Army for sodomy, which he admitted, together with other similar acts, his explanation for his conduct being that he either did not like to refuse requests, or he needed money.

He cohabited with several woman at various times, and he states that he practised masturbation in prison primarily in order to excite heterosexual fantasies, so that his attention might be diverted from other less attractive matters.

An instance of another type which has difficulty in adjusting itself to conditions of life in the general community is that of the formalist, who derives satisfaction from perfecting routine collective movements, and is, therefore, in accord with the precise daily round of a training establishment. He is alert, bright and conscious of his efficiency in such surroundings, and makes an excellent and co-operative inmate because it would appear that he is relieved of the responsibility of varying his response and of calculating his movements in advance. Although such cases may pass through their course of training with credit, the advantage of applying expert psychological direction to some of them is recognized as a protection against their subsequent failure to adjust themselves to the changing situations of ordinary life, for the mechanisms involved in this type of reaction are archaic in form and are distinct from the higher functions of volition. This tendency, termed "hypobulic" by Kretschmer, may be found in training institutions where mechanical forms of discipline have not been reduced to a minimum. The fact that this can be brought to a state bordering on automatism may be observed in certain of the continental training schools of young offenders.

The general attitude to the community and the demeanour of lads who have had many years' institutional life during the pre-adolescent period are often distinguishable from those coming from ordinary home surroundings, but though it is rarely as recognizable among ex-Borstal inmates who have had no previous experience of institutional life, certain features common to both are observed in their general reactions.

This effect of corporate training over a period of years is probably due to the stimulation of conscious co-operation towards the welfare of the community as opposed to the less canalized development of instinctual tendencies as a whole which takes place in varying degrees under ordinary conditions, and includes those dispositions which are directly or indirectly concerned in building up the fabric of social adaptation.

Conscious co-operation, it is thought, is developed in proportion to the imitative capacity or suggestibility of the individual, and while this tendency in conjunction with the gregarious and sexual instincts is necessary to normal social development, as Gordon has pointed out, it is not alone able to actuate a system of ideas capable of being applied to all kinds of situations with adequate success. A crowd will resort to actions which the several persons composing it would not contemplate were it not for the fact that the imitative tendency of each individual is stimulated to an abnormal extent by the proximity of others.

The training in social habits of mental defectives has necessarily to rely on imitativeness to a much greater extent than is the case in normal persons in whom the intellectual approach is available, for the tendency to imitation and mimicry is often a well-marked feature, even in such low-grade types as the microcephalics and mongols, both of whom may show an amenability to this form of training which outstrips their mental capacity. The social adjustment of higher grade defectives is often successfully brought about by this means, and is adequate so long as they do not come in contact with situations for which they have no direct precedent. Imitation implies repetition, and this feature is frequently present in the offences committed by defectives. It is of interest also to note that a sense of rhythm even at the auditory level is well developed in certain types of the same class.

The institutional training of adolescents coming within the range of normality will result in a levelling-down of conditions to the point which is attainable by the lower or more retarded grades within that range unless effective classification is ensured. A certain proportion of these inferior types has undergone an institutional upbringing from an earlier age, and owing to the poverty of their experience of the varied situations of ordinary life, are not infrequently mentally retarded. This limitation of mental equipment shows itself more particularly when they are called upon to meet situations to which they are unaccustomed. The following is an instance of this:

F. P—, æt. 17. Convicted of stealing. Columbian group test 50%. He was in fair physical health, although he was undersized. His mental age was about 14 years, and he showed no sign of insanity, mental deficiency or psychoneurosis. He was brought up in an orphanage, in which he was deprived of playing organized or unorganized games, and suffered severely from his unsympathetic surroundings, which resulted in a sad and repressed manner and facial expression. In common with many other inmates he made repeated attempts to run away.

When he left the orphanage he was totally unequipped for life in the general community. He had no friends, and when, after losing his hotel employment, he obtained lodgings with a woman who was a receiver, he soon embarked, with her encouragement, on the present series of thefts. He realized he was badly entangled, and expressed his relief at arrest and sentence to Borstal detention. He was anxious to do well in training and to join one of the Services on release.

The lack of sentimental attachments and affective contacts in general and the absence of opportunities to develop his mental mechanisms in the normal way were regarded as strong predisposing factors.

It should be noted that adventurousness, which is a not infrequent factor in adolescent crime, forming about 10.2% of all acquisitive offences, and is a normal response to instinctive urges, tends, through the lack of co-ordinating experience, to be expressed in ill-advised and incongruous ways if the normal outlets for these urges have been withheld in childhood.

Another aspect of institutional life tending to foster imitation is attributable to the fact that the ethical code of those who carry out the training of inmates differs in many respects from that of their charges. In the poorer districts, for instance, stealing from the home is regarded as a serious offence, while the appropriation of the property of other people, especially if it is apparently unwanted, may be connived at. The view that all stealing is unethical is regarded as a peculiarity of certain classes and outside everyday practice in their own. Sedulous compliance with this standard of conduct is, in certain cases, considered, in good faith, to be a temporary necessity, to be observed only while they are under institutional care, and its abandonment on their return to the normal mode of living is accomplished without any feeling of fraudulence.

But, as has been pointed out, there is a third factor to be taken into account in the development of social habits, that is to say, the normal evolution of the sex instinct, which adds that degree of extraversion without which social adaptation is incomplete.

It is significant that abnormal sex practices, such as masturbation, especially when carried to excess, foster introversion at the expense of extraversion, and thus tend to interfere with the capacity for social adjustment.

An instance of this is to be found in the following case:

B. Q—, æt. 18 years 9 months. Convicted of sodomy and failing to observe the conditions of his licence from an approved school, and sentenced to three years' Borstal detention.

The physical condition of this lad was satisfactory, and his intelligence was normal, the Columbian group test being 71%. There was no sign of insanity.

His parents were in domestic service and no home had been maintained.

He was of a roving, restless, introspective and solitary disposition, and was much concerned about masturbation, which began at the age of eight. For many years this had caused him anxiety, limited his aspirations and hindered his relations with other people. His attempts to overcome it had failed, and

as a result of this and of his feeling of inferiority he had abandoned a strong desire to become a priest, although he still reacted quickly to a religious atmosphere.

His literary and musical tastes were good, although his attainments in other ways were mediocre.

He was frank, truthful and fairly reliable in his statements, and he was clearly in need of advice and help to develop his character and encourage a more social and extraverted attitude to life. In this he was anxious to co-operate.

Although corroborative statistics cannot be produced, there is no reason to suppose that masturbation is more common in institutions for adolescents than elsewhere, although the epidemics of it which occur are apt to give an exaggerated impression of its frequency, and it would appear that so long as the stimulus provided by a training community is vigorous, the tendency to fall into vicious habits is lessened. These habits, however, like other less unwholesome traits, are more contagious in institutions owing to the abnormal stimulation of the tendency to imitation obtaining there.

The fact that the majority of inmates, in spite of their segregation, are better fitted by training to take their place as normal social units in the general community would appear to be due partly to the fact that the development of the sex instinct can proceed normally for a time in the absence of the usual heterosexual contacts, and partly, among other grounds, to the presence of sound parental attachments. Cases are, however, met with in this period of life in whom instinctive impulses, of which the dominant one is generally sexual, with their accompanying emotions, exert an unusually vigorous pressure on the personality, and where this is so, or the impulses are insufficient as in the melancholic, disproportionate as in the hysterical, or inco-ordinate as in the schizophrenic type, the social stimulus of the institution may be unable to redirect them.

Statistics show that the socializing of those whose endowments are not grossly abnormal is, in fact, brought about under appropriate institutional conditions when these are assisted by discerning individual attention and maintained for a sufficient length of time. Thus, just as the extravert can be encouraged to practise deliberation and so cultivate the inner life of the mind, and the introvert to adapt his mental life to the practical demands of his environment, so may discriminating and sympathetic oversight ensure stability of environment or kindle affective contacts for those whose lack of one or the other has led to antisocial conduct during the critical period of adolescence.

The paths by which the various mechanisms of the mind are linked together are sufficiently wide to admit stimuli which can rarely be identical both in substance and in the circumstances in which they arise, but when once the impulse has begun its course along a particular route, the end-result is generally the same. A stimulus, however, though moving in one direction, is not, as it were, homomalous in form, but is faceted in various ways, each individual

surface having a slightly different implication from the others. The function of temperament appears primarily to be the selection of one or more of these, and it is in connection with this that the lattice-pattern already alluded to can be applied as a working hypothesis, for it is suggested that the design and its angle of inclination determine the aspect which is to be admitted into the mind.

It is thus possible to offer an explanation for some of the inconsistencies observed in the conduct of adolescents suffering from temporary physiological imbalance.

Temperament, however, is not a quality which lends itself to detailed classification, and Shand's interpretation of it as "that part of the innate constitution of the mind which is different in different men, so far as this refers to their feelings and perhaps also to their wills", permits the necessary latitude for this statement. The gauging of temperament, nevertheless, is a valuable weapon in the armamentarium of the investigator of a youth's reactions in the past, and may indicate the means to be adopted to bring about the rehabilitation of some of those who, for obscure reasons, have become delinquent.

Bibliography.—Roback, A. A., The Psychology of Character, 1931.—Lavater, J. C., Essays on Physiognomy, 1783.—Laycock, T., Treatise on Nervous Diseases in Women, 1840.—Paget, Sir James, Selected Essays and Addresses, 1902.—Sigaud, C., and Vincent, L., Les Origines de la Maladie, 1912, quoted by Roback.—Kretschmer, E., Text-book of Medical Psychology, 1934.—McDougall, W., An Outline of Normal Psychology, 1923.—Idem, An Outline of Abnormal Psychology, 1926.—Hinkle, B., The Re-Creating of the Individual, 1923.—Pescor, M. T., "The Neymann-Kolstedt Diagnostic Test for Introversion-Extraversion as Applied to Delinquents", Amer. Journ. Psychiat., March, 1936.—Lange, A., Crime as Destiny, 1931.—Lewy, F. H., Die Lehre vom Tonus und der Bewegung, 1923, and Ausdrucksbewegungen und Charaktertypen, 1924, quoted by Roback.—Fouillée, A., Tempérament et Caractère.—East, W. Norwood, "Attempted Suicide, with an Analysis of 1,000 Consecutive Cases", Medical Aspects of Crime, 1936.—Idem, "Mental Inefficiency and Adolescent Crime", Lancet, July 18, 1931.—Gordon, R. G., "The Problem of Social Adjustment", Journ. of Neurol. and Psychopath., January, 1931, xv, No. 43.—Shand, A. F., The Foundation of Character, 1914.—Case-histories by the medical staff of H.M. Prison, Wormwood Scrubs.