disposal must be applied to the solution of every case. It is evident that there cannot be a 'cure' of what appears to be a normal physiological response under certain conditions: the control of the factors surrounding the production of this response must include all of the accepted methods—whether medical, surgical, dietary or dehydrating depends on the indications furnished by the patient's case. We may thus expect amelioration of the seizures or their control so long as the individual's ability to maintain and compensate a normal life in the presence of deficient structural and physiological mechanisms makes it possible to do so.

The author is convinced that the predisposing factor concerned with the major but not necessarily with the minor attack is due to a hydration state however induced—whether local or diffuse—and that proper control of this factor whenever possible gives rise to an attack-free existence, which may continue so long as the patient's water metabolism or fluid balances remain within the limits of proper compensation.

R. G. G.


The ability to awaken at given times in the morning is one approach to the problem of the temporal judgment during sleep. The writer here records the results of his experiments in this direction. His procedure was to record, on retiring, the approximate time of going to sleep, the time chosen for awakening, and ratings on such factors as general physical condition, degree of mental alertness previous to retiring, motivation, and the amount of sleep on the previous night. Then the suggestion for awakening was given by repeating ten times subvocally: 'Waken me up at x o'clock.' The time of awakening was taken as the time when consciousness was sufficiently regained to look at the clock, and it was recorded to the nearest minute. Other conditions recorded were: illumination in the room, dreams, general physical condition during the first half-hour after awakening, and the 'purity' of the determination (i.e., the amount of subsequent mental activity before dropping off to sleep). It was found possible to 'judge' time with considerable accuracy during a period of sleep. The 'judgment' appeared as awakening under a determination. The average actual time of awakening was far closer to the time set in the experiment than to any time, absolute or relative, that one might have expected for the awakening on the basis of habit. Certain conditions appear as favourable
or unfavourable to the operation of the determination. The more important of these were general physical condition, amount and character of sleep, mental activity subsequent to the setting up of the determination, both before and after going to sleep, illumination in the room on awakening, and motivation.

C. S. R.

[65] The psychology of imitation with special reference to early childhood —


The wide divergence of the views of leading psychologists about imitation demands a thorough enquiry into the facts as to the beginnings of imitation during infancy. From his own observations Valentine concludes that actions to which there is already an innate tendency are imitated very readily within the first few months, e.g. sound-making and smiling. Actions which can serve no purpose perceived by the child and which are not based on instinctive impulses, are imitated freely between the ages of nine and twelve months. There is sometimes a 'latent' period between the seeing of an action and the imitation of it, and sometimes the repetition of an action is necessary before imitation follows. Primary, involuntary, or purposeless imitation seems to be due to the monopolization of attention for a moment by some fascinating impression. Some imitations seem to serve the purpose of helping the subject to realise or enter into the experience of the imitatee more vividly. Some imitations are of a reflex type, if the term reflex can be applied where sight provides the only stimulus. Experimental tests at twelve months and at two years suggest that the tendency to imitate any interesting action is strong in some children. The imitatee is important: a child will sometimes imitate its mother but not another person. There is some evidence that a child may wish others to join in the imitation. The evidence as a whole seems conclusive against the view of some Gestalt psychologists that imitation is always purposive. C. S. R.

[66] The biological significance of blushing and shame.—JOHN T. MACCURDY.


A number of authors have concluded that the behaviour accompanying the emotion of shame represents an instinctive seeking of cover. Blushing is, perhaps, an evidence of the shifting of balance in the involuntary nervous system towards a strengthening of the vagal component at the expense of the sympathetic. This suggests a reaction by the organism towards inactivity and, among the danger responses, this would mean immobility rather than flight or aggression. Immobility among animals turns to hiding in man, and the physiology of blushing and the behaviour of shame are thus identified at primitive levels. Among savages concealment is sought for practices that are
potentially dangerous in a hostile environment. These are eating, sleeping, sexual intercourse and excretion. Shame develops in connection with publicity in the indulgence of these four. In modern civilization security has been achieved for the first two and only traces of shame persist in connection with them. Modesty, of biological origin, has over-determined the shame concerning sex and this has been extended to excretion. Finally, symbolism has made possible the appearance of shame in connection with practices that are neither sexual nor potentially dangerous.


Jealousy is a much less normal phenomenon than is commonly supposed. It is the writer’s experience that for the greater part it rests on an abnormal and neurotic basis. It betokens a failure in the development of the capacity to love, a lack of self-confidence due ultimately to unconscious guiltiness that has not been overcome from childhood days, and an undue dependence on the love object that indicates a tendency in the direction of sex inversion. This last feature becomes plain enough in insane jealousy but it is present in a milder degree in the other forms also. In short, jealousy is a sign of weakness in love, not of strength; it takes its source in fear, guilt and hate rather than in love.


Nine hundred normal individuals were examined by the Neymann-Kohlstedt test. Most individuals fell into one of the two groups, the introverts and the extroverts. It was concluded that intelligence and introversion do not coincide and that the average tuberculosis patient has a strong leaning towards introvertive qualities. The introvertive qualities were found to decrease as pulmonary tuberculosis became progressive and the patient bed-ridden.


A survey of the literature on the subject seems to show that an increasing number of cases formerly diagnosed as nervous dyspepsia are demonstrated on study by improved methods to be instances of actual organic disease of the digestive organs or of their nervous communications. The autopsy findings