
Simple cells show a lack of organization. In living matter there is a tendency for paths of energy to become permanent and it is in this tendency that we find the beginning of structuralization of function or the formation of definite tracts by energy. These energy channels become permanently organized, the organization being transmitted to form part of the organism. Later, organization follows a definite plan and we find head and tail ends, etc. Experiments show that energy is highest at the point where the stimulus is received. The tapering of energy intensity is called the dynamic gradient. From these conclusions it is suggested that the single-celled organism has a head in effect, if not in structure, and the beginning of mind. Mind is the final representation of the function of the organism as a whole. In the single cell is found the commencement of psychological types of reaction just as are found the simplest types of structural organization. Having touched on the evolution of the nervous system the author expresses a belief that all the internal organs have reached the limit of their development but that the cerebral hemispheres may continue to increase in size and complexity. Mind is a function which has not yet become structuralized. It is suggested that bodily structures were originally mental. In the lower types function appears long before structure. We cannot lay down functions in structure until they have been well tried through the ages. Mind being function without structure is very adaptable. Automatic mental processes such as control the viscera and endocrine glands represent stages which are intermediate between this fluid quality of mind and definitely laid-down structures. Malignant growths are explained in terms of the organism's dynamic gradient, the controlling force at the head end being insufficient to affect all parts of the body equally: local irritation will thus develop an organization of its own. Instincts are divided into two main groups, the sex or life and ego or death instincts. In this connection no mention of Freud is found.

Robert M. Riggall.


On the whole there is no noticeable difference between normal and hypnotic states in the ability of normal persons in the fields of sensation, perception, fine discrimination, present memory (learning and retention), or physical work which does not involve fatigue. It is proved, however, that memory for long
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past events is much better in hypnosis than in the waking state. Experimental results agree with the prevalent conception that rapport spontaneously appears in the deeper stages of hypnosis and that memory is greatly affected in the post-hypnotic period, but they are distinctly negative in regard to spontaneous catalepsy and complete posthypnotic amnesia as differentiae of any grade of hypnosis. For the most part, hypnosis seems to consist in adopting with great conviction an attitude of mind. Even though all mental functions in the two states should be proved to be equal, still the differences in what the subject will and will not do, i.e., his ability to assume an attitude, are enough to differentiate the two states. This ability to play a part, so to speak, and yet be quite unconscious that he is playing it, may effect increased memory for long-past events in much the same way that, with some persons, throwing the body into a certain posture may enable them to recall incidents in connection with a certain man who habitually exhibited that posture. This taking of an attitude (consequently refusing to feel the pain or even to take cognizance of it) seems to be a description of the state of mind when analgesia or resistance to fatigue is induced in the hypnotic subject.

The basic difference, then, between the normal and the hypnotic state seems to be a difference, not in strictly mental or even physical abilities, but in the attitudes which can be assumed with verisimilitude. These hypnotic attitudes are emotional, impulsive, and voluntary rather than intellectual. This would leave the term 'hypnosis' with a fairly definite meaning: a state in which a person will do, in a bona fide manner, possessed of conviction, what he will not do in waking life for lack of such conviction.

C. S. R.


FORMAL elements of the galvanic curve were singled out and linked up with concomitant characteristics of the emotional make-up. By this method the psychogalvanic reflex phenomenon may be used as an indicator of characteristic features of the emotional make-up of groups of individuals and in a lesser degree of single individuals. As stimuli were chosen: a list of fifty words, sensory stimuli, threats, deep breathing, and the suggestion to imagine a situation involving emotion. The average number of words reacted to was about one-third of the total list. The reactions were for the most part in close connection with the stimuli. Spontaneous waves occurred in only a few cases in which there was a high emotional sensitivity with a tendency to instability. The comparison of the frequency with the subjects' description of their own emotional make-up gave definite correspondence inasmuch as the individuals with smallest number of responses were of a well-balanced and not especially sensitive emotional constitution, whereas the cases with most frequent reaction were of a more excitable and labile emotional type. The shape of the galvanic
and respiratory curves was in these normal individuals preponderantly regular. Individuals with many galvanic reactions tended to show a low electrical resistance; but low resistance, on the other hand, was not found to be necessarily indicative of a high frequency of responses nor of special emotional characteristics. Variations of the resting current showed no consistent correlation with emotional traits of the individuals experimented on.

C. S. R.

**NEUROSES AND PSYCHONEUROSES.**


The general grouping of neuroses into hysteria and neurasthenia is felt to be inadequate, and in view of the failure to establish any pathological anatomy of neuroses the problem needs tackling from another standpoint. On the other hand, the tendency to regard 'functional' as equivalent to 'psychogenic' leads us astray into the realm of mysticism. That emotional stress may have physical effects, and produce symptoms, no one can doubt; but proof is lacking that these can produce lasting nervous disease or psychosis.

It is clear that we must regard neuroses not as disease processes, but as pathological reactions of a morbid disposition based on inborn factors. The author believes that such predispositions may be classed in the two groups neuropathy and psychopathy, even though we find mixtures of the two groups of symptoms. From this foundation normal stresses elicit abnormal reactions.

In the neuropathic group he distinguishes four modes of reaction:—

1. Painful reactions—headache, neuralgias, etc.
3. Neurotic organopathies—morbid reactions in internal organs and vasomotor system, nervous indigestion, etc.
4. Spasmodic reactions—tics, twitchings, contractures, and hysterical fits, and in his view also idiopathic epilepsy.

In the psychopathic group he includes:—

1. Paranoid reactions—a general tendency to suspicion, periodically increased by stresses.
2. The hallucinatory reaction—without confusion and with insight except during the actual duration of the hallucination; closely linked with this is the tendency to hallucinate in response to suggestion, including the imagining of a suggested paralysis.
3. Obsessional ideas and actions—phobias, perversions, drug habits.
4. Transitory states of depression other than manic-depressive.
5. Abnormal characters, pathological liars, etc.