

ately to movement, when a process similar to the original may be set up, not by an influx of energy from without, but by the weaker nervous current coming from some other central sensory region, showing that the nervous substance must have been far more profoundly affected by the original stimulus than it was by either of the earlier stages.

The characteristics of such stimulus are: (*a*) intensity, (*b*) duration. The source of the image-forming power is, then, delayed reaction, 'made gradually possible by increasing sensitiveness of the organism to stimuli only indirectly affecting its welfare.' The author ventures the suggestion that this principle (applicable to lower organisms) may help to explain why the fully developed mind gets 'from the senses whose stimuli do not indicate direct contact of a beneficial or harmful object with the body, its clearest and most controllable images,' while, on the other hand, the more obscure image is obtained from the closer and more direct stimulation—touch and organic sensations. The senses giving rise to æsthetic feelings are the so-called higher senses—that is, those with greatest qualitative differentiation, with clearest images, with stimuli demanding least immediate and instant reaction. The affective tone of impressions depends on the relation of the elements, and upon the relation of these elements depends the delayed motor response. The lower senses permit no dwelling on the relation between the sensory effects of different stimuli.

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*Il Destino delle Dinastie. L'Eredità Morbosa nella Storia.* A. RENDA. Torino, Bocca, 1904.

The purpose of this essay is to put in evidence previous contributions, then to treat history from the viewpoint of psychology and psychopathology; to make certain observations on the complicated and obscure problems of heredity; to draw from the analysis of the hereditary development of psychic and psychopathic phenomena those consequences which illuminate the genesis and nature of being.

In spite of the development of knowledge, the new light thrown upon the biological problems of the evolutionary theory and the study of embryology, the phenomena of heredity are uncertain. Despite such hypotheses as Darwin's pangenesis, Weissmann's plasmic continuity, Spencer's polarigenesis, and Haeckel's perigenesis, the question remains, Are all the characteristics transmissible? And do these include those which are accidental, such as mutilations, or only those which are specific, or those which, being acquired, have modified the

germinal cells? The possibility of determining preventatively the future of those to be born, from one's knowledge of the parents, is a scientific mirage. But from history the extent of the genealogical tables of reigning families has the advantage of a cycle computed from actual occurrences. This permits one to follow the psychic history of a familiar group from its origin to its extinction; to observe the casual entrance of hereditary blight, to mark its growth, to describe all its modifications and to study the reversions. The chief source of error here is disregarding the disturbing influence exercised upon the conduct of rulers by the state of authority, the families which surround them, the traditions, social institutions and political exigencies of their environment. Hereby the results are modified. Volitions and character, inhibited and modified by direct external pressure, lose something of their genuine physiognomy. Still within three or four generations the first symptoms of lesion disturb the heroic hereditary fiber and signs of weakness and madness appear. Here the organic analogies of sociology are erroneous, yet there is a sort of collective biological evolution in which destructive microbes, as it were, hasten degeneration. The decline of aristocracies is attributable to the infiltration of inferior elements into a well-born group, although this may be repaired by systematic selection. Here psychic dynamism, because of its influence upon moral personality, ought to produce in the cerebral life a functional disturbance, and be the beginning of mental maladies and grave nervous affections (Jacoby); however, it cannot be proven that such power or ability is the essential and unconditioned factor of increasing morbidity. There are also to be considered lack of self-control, of impulsive inhibition, of moral sense, of respect for human life and of those sympathetic feelings which depend upon the circumstances of the times.

There is no doubt but that consanguinity in marriage has a baleful effect, since a subsequent cross-breeding does not greatly alter the psychic physiognomy. In the neuropathic tendencies of dynasties Orchansky's results are applicable: (1) The maladies of the father tend to be reinforced in the male line; (2) paternal heredity is progressive; (3) the first born are the most seriously affected; (4) the maternal heredity is, contrariwise, beneficial, depending perhaps upon the greater stability of the female organism. To this last view, which contradicts Lombroso, may be added the principle of Doubleday and Howorth that excessive prosperity of the individual is fatal to the prosperity of the species, since the privileged classes live in a parasitic state and thereby lack stimuli to action. Among all these conditions,

consanguinity and the greater degenerative tendency of males are the chief biological and social factors. In dynasties these lead to sterility, premature death, idiocy and moral madness. Germs of these things are also in all of us. The perfectly healthy man is an abstraction.

In part II. these principles are applied to the neurotic dynasties of Augustus, the Medici, the family of Charles V., the houses of Capet and Valois. Turning from the genealogical tables, part III treats of the contribution of art. Here the drama is said to have value in so far as it presents the conclusions of heredity, not the mysterious process of the formation of character. A study of the Plantagenets according to history and Shakespeare, furnishes the curve of degeneration showing the convergence of heredity as a cause. It is not here possible to construct an exact clinical scheme, but with the appearance of epilepsy and imbecility there come, in the first generation subsequent, epileptic equivalents; in the second and fourth, convulsions; in the fifth, a true epileptic psychosis: in the seventh, epilepsy with vertigo and unconsciousness, etc. In the English dynasty there appears an epileptic neurosis accompanied by deficiency or imbecility. Here Morel distinguishes four phases: in the first generation, irritability and cerebral congestions; in the second, intensification of the same, apoplexy and cases of grave neurosis, epilepsy, hysteria and hypochondria; in the third, eccentricity, lack of equilibrium; in the fourth, deaf-mutism, deficiency, precocious dementia. While Tigges proves the inconstancy of this progressive degeneration, the end of the process is always idiocy, imbecility and sterility. In brief, a nervous diathesis forms a connecting link between two morbid episodes or between two metatheses of an hereditary neurosis; while the passions are symptoms and psychopathic equivalents of a morbid process such as appears in mental maladies and anomalies. Returning to a concrete problem, the pedigrees of the French, English and Spanish dynasties exhibit instances of melancholia, persecutory paranoia, jealousy and avarice. Applying Galton's law, it is found that a descendant does not represent an arithmetical sum of the quantity of his ascendants, but possesses the quality of an ancestor from whom he derives an impression common to the family. In some cases morbid forms reappear with such persistency as to give a characteristic physiognomy even to the last of the line. In such a case the psychopathic personality of an individual is given from the prevalence in one group of a quality distinct from the other psychophysical elements with which it is associated. In conclusion it is said that the degeneration of ruling houses, especially of the nobility, has perhaps little force

nowadays because of the wider social forces at work; the study of such a tendency being merely one side of the polyhedron of humanity.

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*Sulla quistione del genio.* VINCENZO ALLARA. Archiv für systematische philosophie, X., 2, 1904.

There are two predominant theories of genius: the physiological considers genius a superior faculty but always in exclusive and perfect relations with the physiological conditions of the organism in general and of the nervous system in particular, the other theory is the pathological, degenerative, or Lombrosian. The former is founded on insufficient evidence, the latter exclusively on pathological complications, which form both its strength and weakness. A mediating view makes genius a higher faculty entirely physiological but modified by pathological conditions of various kinds and degrees, be they transitory or permanent, inherited or acquired. If, as with Lombroso, genius and talent are synonymous, the latter should be considered as pathologically conditioned, as well as all intellection, whether negative or positive; for imbecility and idiocy and cretinism, as also normal thinking, are always emanations or secretions of the nerve cells.

Without carrying pathology to extremes, all men who have the least talent or genius possess pathological stigmata; especially do hydrocephaly and meningitis irritate and increase the functional activity of the brain cells. And yet genius cannot be considered as a manifestation entirely pathological, as a degeneration, for men without genius possess an exaggerated sensibility to meteorological conditions and this may be explained on psychological grounds.

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*General Intelligence, Objectively Determined and Measured.* C. SPEARMAN. Amer. J. of Psych., 1904, XV., 201-293.

The purport of this article is " 'Correlational Psychology,' for the purpose of positively determining all psychical tendencies, and in particular those which connect together the so-called 'mental tests' with psychical activities of greater generality and interest."

The past fails to establish any positive conclusions fixing a definite status of correlation. Either 'General Intelligence' does not exist, or else it is a mere term of designation. Former experiments lack the value that is to be obtained through the adoption of some 'adequate system for proving and measuring associative tendencies.' Mathematical exactness is the keynote of the present work.