

autocracy. Can democracy develop a superior type of teacher who will rightly direct the essential factors of character and temperament, thus establishing in personality the foundations of democracy and of lasting peace? On this biological view the teacher becomes a recognised leader in the determination and security of civilisation.

JOHN GIFFORD.

Organ Inferiority and its Psychological Compensation. (Summary of Adler's Monographic Study.) (*The State Hosp. Quart.*, November, 1920.) Haviland, H. C.

In beginning the study of organ inferiority, Adler starts with the consideration of the urinary apparatus. The ætiology of renal disease is obscure. In cases of genuine or primary kidney disease the final cause cannot be traced beyond the kidney. The nephrotoxic theory (scarlet fever, etc.) fails because we know of no poison which attacks the kidney and at the same time only the kidney. The theory that the kidneys are more prone to disease because of their function as excretory organs fails also. Why is it that, with bacteria in the blood, with chronic metabolic anomalies, with alcoholism, pregnancy, or chill, the kidneys are so often found healthy? We are, therefore, forced to the third view—that most renal diseases are caused by a fundamental inferiority of the urinary excretory apparatus. One of the strongest arguments for this theory is heredity. In many cases it becomes questionable just where the aspect of disease begins for us. It is necessary to pursue the theory as regards many, if not most, diseases. Can the inferior organ by treatment be aroused to sufficient function and to additional development? Often it can in young people, often it cannot in older patients.

Why do certain diseases just attack a certain organ? The hypothesis accepted is that there is a primary inferiority of this organ as a basis for the disease. Tuberculosis is probably always localised in an inferior organ. So also are diphtheria, pneumonia, typhoid, cholera, and dysentery. At the same time the part the bacterial invasion plays is not denied, though many pathogenic organisms can be demonstrated in well people. He therefore drops this conception of "absolute" inferiority for these widely spread diseases, and introduces the term "relative" inferiority.

(1) *Morphologic inferiority*.—The shape, size, and individual proportions of tissue, individual cell complexes, of the whole or limited parts of the apparatus may be deficient. Thus one of the individual's organs has to perform necessary functions with a lesser stock of tissue and one less capable of resistance, and the hour comes when the insufficiency of the organ is revealed. Foetal defect is due to heredity or prenatal influences, and the same or different organs may be affected. Organic inferiorities close to the surface have passed up to to-day under the name of stigmata. Manifold inferiority may occur extending through several organs.

(2) *Functional inferiority*.—This consists in a quantity or quality of work insufficient to satisfy a standard of required effectiveness. Shock of any sort, infections, exhaustion, overwork of a bodily or psychological nature, disturbance of temperature, will usually show their effects. We

therefore find in cases of disease that the bulk of it is concentrated on the inferior organ. Normal organs are compensated less by hypertrophy and more by hyperfunction, inferior organs undergo hypertrophy to maintain their normal function. It is only a step from excessive growth to neoplasms occurring in such organs. The development of carcinomas is preceded by a number of years of functional disturbance or further disease of organs. A confirmation of this theory can be drawn from Cohnheim's carcinoma theory of scattered embryonic germs. A significant light is thrown on the nature of organ inferiority by the frequent phenomena of manifold inferiority in the organs of a person and the part played by the brain and spinal cord in connection with it, which frequently act compensatingly and cover the existing defect and sometimes shape it to useful ends. Heredity therefore consists in inheriting one or more inferior organs. Adler cites moral deterioration, criminality, chronic alcoholism, as arising from inferiority of brain in the progeny of epileptics. An organ may be found quite healthy but inferior owing to heredity. If the case be traced back to childhood a functional deficiency will be found which existed before compensation was established. A fault of childhood in relatives should be regarded as a suspicious sign of inferiority of the organ at fault. The psychical structure formed by the reflection of the inferior organ on the psyche becomes a foundation for neuroses and psychoses. Often organs of a slight inferiority may develop greater functional capacity than normal organs because of the compulsion of constant training in the capacity for adaptation and variability, often adhering to inferior organs, and surely also in the development of related nervous and psychical complexes, heightened by an inner attention and mental concentration upon the weaker organ.

The part played by the nervous system is important. Manifold organ inferiority extends itself to sectors of nerve-tracts of the central nervous system. Inferior organs incapable of compensation fall victims to more rapid or slower destruction. On the other hand, Nature may compensate and make them quite capable or even more capable at times. Between the extremes are mixed formations which have not been completely compensated. It is from this group that neuroses and psychoses develop. Functional and morphologic formation of the organ and its nerve-tracts will make the inferior material functionally capable as in normal development, partly as a result of stimulus, partly owing to continued effort. Ordinarily the central nervous system will play the largest part in compensation not only physically but psychically, for the reason that a particular interest seeks to protect the inferior organ from harm by constant attention. If such organs are not controlled by a surplus from the central nervous system but at its expense, the overwork will be lastingly felt, and on suitable occasions chance causes will produce a disturbance of compensation which will result, according to the degree of disturbance and the psychical constellation present at the time, in neurasthenia, anxiety and compulsion neuroses, and hysteria.

If there is a particular retardation of the organs as well as the related nerve-tracts such conditions as idiocy and imbecility result. The mastering of children's defects points to compensating activities

in the superstructure. Childish defects really represent lines of direction from the life of the psyche, and are signals indicating peripheral or central inferiority which has not been overcome. We can always find attentiveness of the central superstructure proportionately distributed on the part of the normal organ, disproportionately distributed and increased according to the organic over-compensation in the inferior organ, more easily aroused but less productive by reason of unsuccessful compensation, insufficient or absent in cases of lasting central inferiority.

This work refers all phenomena of neuroses and psycho-neuroses back to organ inferiority, to the degree and nature of the not quite successful central compensation, and to the compensatory disturbances which enter into the matter.

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2. Neurology.

Pupillary and Reflex Disturbances in 275 Cases of Neurosyphilis.
(*Journ. of Nerv. and Ment. Dis.*, August, 1920.) Lowrey, L. G.,
and Benedict, Mary K.

In this study of all cases of neuro-syphilis seen during a year and a half, only those cases were utilised where the presence of neuro-syphilis had been proved. The clinical diagnoses were: general paresis, 186 cases; tabo-paresis, 12; tabes, 8; juvenile paresis, 4; neuro-syphilis (not further specified), 65. The authors did not find that the Argyll-Robertson pupil occurred in every case of tabes and tabo-paresis; 43 *per cent.* only of paresis, tabo-paresis, juvenile paresis and tabes showed the phenomenon. Of the whole series 40·7 *per cent.* reacted in this way. Impaired pupillary reaction was found in 71·3 *per cent.* of cases—40·7 *per cent.* Argyll-Robertson; 11·7 *per cent.* spastic and 8·3 *per cent.* sluggish both to light and on accommodation; 10·5 *per cent.* with impaired reaction not further specified—leaving 28·7 *per cent.* of cases in which the reactions were normal. Inequality and irregularity of pupils were common. Irregular pupils are of more diagnostic import than unequal pupils, since the number of possible causes is less. These abnormal reactions do not inevitably mean neuro-syphilis, as the Argyll-Robertson pupil temporarily occurs in alcoholics, the completely spastic pupil in arterio-sclerosis cerebri, unequal and irregular pupils in iritis. Too much reliance, therefore, must not be placed on the pupils in neuro-syphilis, especially in view of the 29 *per cent.* of normal pupils in cases of paresis.

In 70 *per cent.* of the cases some type of abnormal tendon reflex response was found. All cases of tabes and tabo-paresis and 70 *per cent.* of the parietic cases showed some reflex disorder. The knee-jerk showed an alteration in 43 *per cent.* of all cases, and in 41·7 *per cent.* of paresis. A lost reflex was more commonly found than an exaggerated one, contrary to the usual belief. These findings show the importance of lumbar puncture in the diagnosis of mental and nervous diseases, as neither the presence nor the absence of pupillary and tendon reflex disturbances is sufficient to determine a diagnosis.

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