of a coloured spot. He tells us that up to the year 1896 about 140 articles on the subject had appeared, principally by French and Italian authors. D'Abundo finds this affection to be hereditary, and some of its subjects neuropathic. In one case the vowels were associated with sensations of colour, and not the consonants. Words had the colour of the vowels which composed them. Some sounds were accompanied with colours, while tunes were not. In other cases all letters were accompanied with colours. The same sounds were not in different individuals associated with the same colours, but a was often associated with red, u with black, and i with white. In one instance the associations were given as follows: a, with black; e, with bright yellow; i, with sulphur yellow; o, with brown; u, with dark blue; ai, with a deep dark colour; oi, with purple; and au with blue. The name Luise was associated with dull blue, Margerethe with brown, Ida with yellow, George with deep brown, Max with dark blue, and so on.

Dr. Lomer observes that there are certain innate correspondences between the perception of colours and that of musical sounds. Albertoni has shown that in people who are colour-blind there are typical defects of the musical sense. Those blind to green take up in hearing, and repeat in singing, different notes from those blind to red.

WILLIAM W. IRELAND.

5. Ætiology.

Heredity and Predisposition in General Paralysis [Erblichkeit und Prädisposition resp. Degeneration bei der progressiven Paralyse der Irren]. (Archiv f. Psychiat., Bd. xli, Heft 1, 1906.) Näcke, P.

Following up his previous studies of the inborn degenerative elements in general paralytics, Näcke here reviews the question at considerable length in reference to the most recent investigations, summarising a very large amount of literature in his usual careful and precise manner. He finds that there is still need for thorough investigation on a large scale and with due regard to detail; the personal equation differs so widely that the control study of normal individuals must always be carried out by the same investigator, and it is better for inquiries of this kind to be in the hands of two investigators working together.

After defining afresh what he means by "degeneration," Näcke reviews the latest observations, and concludes that though they are by no means harmonious, they lead to the conclusion that stigmata are more numerous in general paralytics than in normal persons, while in number and apparently also in gravity they approach those found in other psychoses (excepting idiocy and epilepsy). As regards morbid heredity, a review of the literature shows that the majority of authors now admit that it is very frequent in general paralysis, according to some almost as frequent as in other forms of insanity, though very seldom heavily charged. The existence of such heredity appears to favour syphilitic infection, partly because there is a tendency to fall into excesses, and partly because there is sexual precocity. As regards the psychic disposition of persons who become general paralytics, Näcke observes anomalies of character and nervous disturbances, as well as inclination or else intolerance towards alcohol. They are usually sanguine and choleric, whence, doubtless, the nature of the subsequent delusions. Näcke believes that the arteriosclerosis so frequently found (and often not of syphilitic origin) may appear at an early age. The psychic and somatic anomalies of the children of general paralytics have not been properly investigated; they are by no means always due, in Näcke's opinion, to paternal syphilis. He concludes that in most, if not all, cases, the general paralytic possesses an invalid brain, either *ab ovo* or developed later, and thus, as a rule, presents a degenerative predisposition which is excited into activity by syphilitic infection, though such infection is not essential to the manifestation of the disease.

During a recent visit to Bosnia, Näcke has taken the opportunity of inquiring into the relationship between syphilis and general paralysis in that land ("Syphilis und Demenuia Paralytica in Bosnien," Neurol. Ctbltt., 1906, No. 4). His inquiries at Sarajevo and elsewhere showed that though syphilis is extremely common (not uncommonly communicated to children in extra-genital ways) and usually severe, yet general paralysis is extraordinarily rare. The same is true of Herzegovina, and apparently Dalmatia also, where syphilis is very common and often badly treated or not treated at all. Tabes is also very rare. The people of Bosnia are a very fine and handsome race, and in this relationship of syphilis and general paralysis Näcke sees a fresh proof of the thesis that general paralysis can only arise in an ab ovo invalid brain, or perhaps in some cases a brain that has become invalid during life. The facts cannot be explained away, he remarks, by the theory that it is a question of racial differences, although that theory may contain a certain amount of truth, for there is ample evidence that under the stress of civilisation and with increased degeneration the relationship of general paralysis to syphilis undergoes a change. Syphilis has long been prevalent in Japan, but it is only during recent years, under the stress of a new civilisation, that general paralysis has also become common. Exactly the same change has occurred among the American negroes since the abolition of slavery, and in Roumania since that young country began to develop, though syphilis has always been common there. The infrequency of general paralysis among prostitutes, also, Näcke is inclined to explain by the fact that they mostly come from the country and begin their career with a sound body and valid brain.

HAVELOCK ELLIS.

The Psychoses in Relation to the Physiological Phases of the Organism [Sulle Psicosi in Rapporto alle Fasi Fisiologiche dell. Organismo]. (Il Manicomio, anno xx, No. 3, 1904.) Angiolella.

In this paper, read at the Twelfth Congress of the Società Freniatrica Italiana at Genoa, Angiolella devotes himself to a critical discussion of certain of the assumptions involved in Kraepelin's views with regard to dementia præcox.

Recalling, in the first place, the familliar division of the cycle of life in the higher animals and in man into the three stages of development, maturity, and decay, Angiolella points out that the transitional phases of puberty and the beginning of senility represent two crises which the

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