by emphasising the immense difficulties of the alienist's task on account of the uncorrelated and heterogeneous trends of experience by which he is confronted. "The greatest need we alienists have is a general recognition of sound pluralistic principles of experimentation, and in this direction the Anglo-Saxon mind, with its empiricism, seems to have a strong interest. The logic of a sound empiricism has no set form of classification, and is free to recognise the unfinished character of many of our stipulations."

The Investigation of Suggestibility in Nervous Disorders [L'Examen. de la Suggestibilité chez les Nerveux]. (Arch. de Psychol., Aug., 1904.) Schnyder, L.

By means of a mock application of electricity, effected with the aid of an old rheostat, Schnyder, of Berne, has tested the suggestibility of over 200 patients (111 women, 92 men) suffering from various nervous The extremity of each cord of the apparatus was furnished with a metal ring into which the middle finger of each hand was placed, without any constriction. The experiment was always made near the beginning of a patient's treatment, and in a strictly uniform way; it was carried out in a quiet professional manner as though it were part of the treatment. The subject naturally expected to feel something, but no attempt was made to force the suggestion upon him; he was simply asked to say if he felt anything. Taken altogether, 54 per cent. of the individuals examined (53 per cent. of the men and 55 per cent. of the women) fell into the trap, and declared that they felt tingling, numbness, or other sensations, arising in the fingers, creeping up the arms, and sometimes overspreading the whole body. It was found that neurasthenic subjects, whether male or female, were decidedly more suggestible than the hysterical; among the women the suggestible were in the proportion of 77 per cent. for neurasthenia and 43 per cent. for hysteria, among the men 61 per cent. for neurasthenia and 44 per cent. for hysteria (though here the cases were few). Schnyder remarks that though the hysterical are undoubtedly highly suggestible it is their own auto-suggestion that they follow, while their defective attention makes them less easily suggestible from without. Persons affected with other nervous disorders were not numerous among the patients examined, and for the most part suggestibility was very much less than in neurasthenia and hysteria. Schnyder considers that this test may often be of practical use, in part to reveal a patient's psychic tendencies, and in part to demonstrate to him, if necessary, his own imaginations and the importance of self-control. HAVELOCK ELLIS.

## 3. Clinical Psychiatry and Neurology.

A Contribution to the Study of Epigastric Voices and of the Psychical Hallucinations of Baillarger [Contributo allo Studie delle Voci Epigastriche e delle Allucinazioni Psychiche de Baillarger]. (Ann. di Neurol., fasc. i, ii, 1904.) Ansalone, J., and Patini, E.

The first part of this paper deals with the subject of epigastric voices, and especially with the following questions for consideration: How far

can Séglas' hypothesis, that they are all psycho-motor verbal hallucinations, be accepted? Is Lugaro's theory, that they are auditory pseudo-hallucinations, any more convincing or exact than Séglas'?

The authors, in the second half of the article, discuss the pathogenesis of psychical hallucinations, and seek to disallow their claim to an autonomous symptomatological entity.

Epigastric voices.—While allowing that the psycho-motor verbal element is present in some cases, they hold that common or ordinary movements of the tongue are often loosely diagnosed as specific movements of articulation. On account of the mental state of the patient, his tendency to morbid associations and his incapacity for minute introspective analysis, another hypothesis is tenable—that true auditory hallucinations are present, associated with lingual paræsthesia.

Lugaro's theory, that they are due to auditory pseudo-hallucinations associated with paræsthetic sensations in the parts of the body where they are localised, is next dealt with at length. The authors criticise the cases reported by this writer, and hold that in none of them was the epigastric voice phenomenon really present. They maintain that epigastric voices are pre-eminently a sensory disorder, while in pseudo-hallucinations this is wanting. Baillarger and Lugaro both held that one of the wellknown characteristics of pseudo-hallucinations was the absence of objectivity. The authors question if epigastric voices, because localised within the body, lack this objective character present in true hallucinations. They quote Séglas on unilateral hallucinations and unilateral alternating hallucinations, whose view was that when a new morbid phenomenon (hallucination of hearing) obtruded itself on a patient whose attention was already fixed on some morbid process or paræsthesia in one ear, the former was by the patient projected into the latter situation. This holds true, they believe, for epigastric voices as well as unilateral auditory hallucinations. In the three cases which the authors present illustrating the epigastric voice phenomenon there were various paræsthesias. The first complained of gnawing in the right arm (where she also heard the voice), the second of epigastric constriction, the third of blows on her chest and epigastrium. Now, in addition to this association of the verbal hallucinatory phenomenon with visceral hallucinations, in all three cases ordinary hallucinations of hearing were also present, and the authors see in this a further confirmation of their views on the subject.

The authors draw the following conclusions:

There is no analogy between epigastric voices and pseudo-hallucinations. The latter are devoid of any sensory element, while this is the basis of the former.

In some cases the motor verbal element is undoubtedly present; in others, and in the writer's opinion these constitute the majority, the prevailing element is the auditory verbal; cases occur in which it is not clearly demonstrable how much is due to the motor and how much to the auditory element of speech.

Epigastric voices, although localised within the body, have the same objective character as true hallucinations.

Lugaro's hypothesis, that they are auditory pseudo-hallucinations associated with visceral hallucinations, is unsustainable.

In the second part of the paper the authors criticise at length the work done by Baillarger and Lugaro on the subject of psychical hallucinations. They think that the nomenclature is an unfortunate one, and deny that pseudo-hallucinations merit being classed as a separate entity. While agreeing with the above-named authors that there is no sensory factor nor any objective character present in these phenomena, they hold that these so-termed "pseudo-hallucinations," consisting as they do of convictions, thoughts, volitional ideas and determinations, although they appear to the patient to have an extraneous and unlooked-for character, nevertheless do not merit their name, as they have nothing sensory in their nature nor possess any analogy to hallucinations. What is most striking in these cases is the marked tendency they have to the elaboration of delusional ideas. The authors' contention is that the pseudo-hallucinatory phenomenon is due to a disordered state of the intellectual centres ("ideo-emotive spheres"), and that the so-called "psychical hallucination" is a delusional interpretation.

They conclude by saying that, since almost all these cases have the conviction that an outside influence dominates their ideas, these complex disturbances would be better indicated by the term "delusions of transmission, or possession, of the thoughts."

A. I. EADES.

## Hallucinations (Journ. Ment. and Nerv. Dis., Nov., 1904). White, W. A.

In the author's opinion the generally accepted distinction made by Esquirol between illusions and hallucinations is erroneous, and his definition of the latter founded upon a complete misconception of the mental state in hallucination and of the nature of sensation. It is absolutely impossible for a centrally aroused idea to be mistaken for a sensation.

He then discusses at length and dismisses as incorrect the various theories (which he terms the central, centrifugal, and centripetal) which have been advanced to explain the feeling of externality and projection outwards of the hallucination.

Sïdis' new theory, with which he is entirely in agreement, he suggests might be called the peripheral—a paradoxical expression from the standpoint of Esquirol—to distinguish it from those already mentioned. This theory is that secondary sensations (as seen in the so-called sound and pain photisms and light phonism) hold the explanation of hallucinations, and the author presents ten cases in great detail to illustrate how the phenomena as ordinarily experienced can graduate into a true hallucination.

A study of these cases has led him to the conclusions that to have a false perception there must be something to perceive, and that something is in the environment and can only enter as a factor into the mental life through the intermediation of sensations. Ideas cannot be perceived.

Hallucinations are secondary sensations either arising in the same sensory field, in which case they might be described as illusions in the sense of Esquirol, or arising in other sensory fields, in which case their secondary character is quite clear.

The mental state in illusions and hallucinations is identical. Given