

judgment and even on the memory ; and he sees as clearly as modern writers that anger is a febleness of the mind.

The author is fully alive to the value of this method of studying history, but he sees that it is beset with many pitfalls. He says : " This application of psychology and mental pathology to history presents many difficulties, for it requires various methods and extensive knowledge, the criticism of texts, and the clinical study of mental diseases. So the essays on historical pathology which have been attempted are not all free from exaggerations and errors."

The psychological historian must be versed in the laws of evidence, and adroit in their application to given cases, for imagination plays a part in the account which even an honest witness gives of an event, leading him " to enlarge, embellish, or diminish it."

The point of view changes with the nationality of the chronicler. It changes also with the flight of time, for, as Voltaire says, " the same nation at the end of twenty years has no longer the same ideas that it had on the same event or on the same person."

Another cause of uncertainty is the historian's state of mind. " Not only the contemporary witnesses, who relate the facts, do not all see them with the same eyes, and consequently they interpret them in different ways, according to their mental bias, their education, their profession, and their political and religious opinions ; but the historians themselves study the past with their preoccupations of the present. The freethinker and the religious man, the democrat and the conservative cannot arrive at the same judgment on the events of the past." Voltaire's blind hatred of Christianity deducts from the value of his criticism ; Taine's dislike of the *Ancien Régime* distorts his views on the causes of the French Revolution.

But the greatest difficulty of all is that the would-be psychological historians allow themselves to be carried away by their own theories. For example, Moreau de Tours has accepted almost any fable which fitted in with his hypotheses. " Believing that he had discovered an explanation of genius in a pathological state of the nervous system, he mixes with his clinical observations doubtful anecdotes and unproved or badly interpreted little stories, which he has borrowed from historical novels." The evil of such a method is far reaching. Lombroso, without proper examination, accepts the stories which he finds in the works of Moreau de Tours, and proceeds to argue from them that genius is a form of epilepsy.

Louis Proal's paper is not only interesting but useful. It strikes a note of warning, which was never more needed than at the present day, when we are so much under the influence of German thought, for it is characteristic of the Teutonic mind to care little about the truth of the premises so long as the deductions appear to be logical.

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*Do Psychological Phenomena exist in the Vegetable World? [Existe-t-il des Phénomènes Psychologiques dans les Végétaux?]. (Revue Philosophique, February, 1916.). C. Acqua.*

This question, the author says, cannot be treated from a theoretic or metaphysical point of view ; it ought to be dealt with, on the contrary,

by the positive method of observation and experience. One has been taught that psychological life is bound up with the presence of a nervous system. As we descend the zoological scale the nervous system gradually simplifies its structure and finally disappears. No one has demonstrated with certainty the presence of nervous substance in the protozoa. Are we, therefore, to conclude that there is no psychological life in these simple animals? The author considers that the continuity, which in zoology binds the most simple phenomena to the most complex, leads us to think that even among the infusoria there may be rudimentary psychological phenomena.

But there is no trace of a nervous system in vegetables. Are we to conclude, therefore, that they have no psychological life? It is admitted that certain agents, such as weight, light, etc., provoke the reaction of movement among vegetables. Without being able to admit the existence of an organ which accomplishes, even embryonically, a function analogous to that of a central (nervous) organ among the animals, one can distinguish the zones of the reception of the exciting cause, the zones of conduction, and the zones where the reaction takes place. At the extremity of the root there is an excitable zone, the geotropism and hydrotropism of which are the proof of its existence. At the extremity of the stem there is another excitable zone with its characteristic heliotropism.

The compound leaves of certain plants (one presumes that the author considers the parts of the flower as being morphologically analogous to leaves, and speaks accordingly) open during the day, and close during the night, these movements being provoked by light. But when these plants are kept in the dark, these movements continue at the same hours for a certain time, and after a while cease completely. This the author deems to be a phenomenon of memory, the plant recollecting the stimulus of light and performing the movements even when the stimulus is no longer felt.

Thus the author demonstrates in the vegetable world the existence of differentiation (geotropism, heliotropism, etc.) and memory, the two primary attributes of intellect.

He further points out that the mobile ciliated spore of the *algæ* reacts in the same fashion to external agents as the ciliated cell in the animal kingdom. But while in the case of the animal there is evolution and a growing complication of the functions of psychic life, the vegetable world presents neither this evolution nor this complication. An inferior sensibility or irritability is common to animals and vegetables, and irritability may be regarded as a function, though a very inferior one it is true, of psychological life. From this point of view, one may admit with the author that psychological phenomena exist in the vegetable world.

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*The Results of a Questionary on Antipathy [I Risultati del Questionario sull'Antipatia].* (*Psiche*, October-December, 1915.) De Sarlo and Fanciulli.

Questions were circulated by an Italian psychological society among psychologists, professors, and others concerning antipathy, its relation to other antagonistic states, its description and analysis, its various