

*Du Hachisch et de l'Aliénation mentale; Etudes Psychologiques.* Par J. MOREAU, (de Tours,) Medecin de l'Hospice de Bicêtre, Membre de la Société Orientale de Paris. Paris, chez Fortin, Masson, et cte., 1845: 8vo. pp. 431.

*Psychological researches in reference to the Indian Hemp and Mental Alienation.* By J. MOREAU.

THIS book comes before the profession with high pretensions to originality,—claiming for its author a farther progress within the domain of the world immaterial than had been made by any of his predecessors,—new discoveries in regard to the philosophy of mind,—a revelation of some of the hitherto undeveloped mysteries of the pathology of psychology. With such imposing claims it ought, perhaps, to receive a more elaborate review than our limits will at present permit. We shall attempt, however, to give such an analysis that its general propositions, its pretended discoveries, and the true nature of the title of the latter to be considered as discoveries, may be clearly understood.

It appears that an extract of hachisch (Cannabis Indica, or Indian hemp), is extensively and habitually used among the Orientals,—the Egyptians, Syrians, and particularly the Arabs,—for the same purpose that opium is employed by the Turks and the Chinese, and the diverse modifications of alcohol by Europeans, Americans, and others. This extract is a stimulant narcotic, potent and peculiar in its action, giving rise to mental phenomena and muscular action strikingly analogous to those produced by the nitrous oxide, when inhaled, the effects of the former being, however, of much longer duration than those of the latter. That these properties of the hachisch may be more accurately understood, we shall give an abstract from two cases reported by M. Moreau. In the first, the man having taken a portion of the extract and seated himself at dinner, was seized with a violent fit of laughter. Dinner being over, he took a spoon and put himself on guard opposite a jar of preserved fruit, with which he supposed that he was to fight a duel. He then left the dining-room, laughing loudly. Desirous of hearing music, he placed himself at a piano and played part of an air from the *Domino noir*. Suddenly he saw above the piano the image of his brother, with a black queue, terminated by three lanterns, one green, one red, and one white. This image presented itself several times during the evening.

Seated upon a sofa our subject—not patient—felt as if he had become a mass of lead. Some one attempted to raise him, but he fell heavily upon the floor and prostrating himself in Moslem style, began a confession. Being raised, he seized a foot-stove and danced the Polka, imitating, in voice and gesture, several actors whom he had seen at the theatre. He next imagined himself at a ball, where he saw the brilliant lights and the masked dancers, and heard the noise of the crowd. Passing, now, into a dark room, he felt a sense of suffocation, and thought he fell into a well of immense depth,—the well of Bicêtre. To save himself, he grasped the stones of the wall of the well, but they fell with him. He was brought back to the lighted room, when he exclaimed, "Fool that I was! I thought I was in a well, but I am at the ball of the opera!" Running against a tabouret, he imagined it to be one of the masked dancers and requested what he supposed to be a police officer to arrest it. He called for lemonade, and told the servant to make it of a lemon less yellow than her face.

He now suddenly paused and passed his fingers through his hair. Millions of insects were devouring his head. He sent for an accoucheur to deliver one of the female insects that was in labour, and had selected for her bed, the third hair at the left of the forehead. After a painful labour, she was delivered of seven young.

He recollected a dinner party at which he had been a guest several years since, and saw the other gentlemen who were there with him. In a heaven of blue and silver he saw his child, with white wings, bordered with rose, and surrounded by other children who were flying, like himself. From this vision he fell "into the country of lanterns," where the men, the horses, trees, and streets were small lanterns such as are used on the evenings of the fêtes, to illuminate the Champs Elysées. They walked, danced, and were continually in motion, and in their midst were the three which had been attached to his brother's queue.

Having drunk some lemonade he imagined himself at the Quarnier baths. When swimming, his head was plunged beneath the surface. He swallowed some water, cried, but the louder he cried the more water was swallowed, until he was rescued by a friend. "I cannot describe," says he, "the thousand fantastic ideas which traversed my brain during the three hours that I was under the influence of the hachisch. *I had my reason in the midst of this strange folly.*"

The following is translated from M. Th. Gauthier's account of the effects of the hachisch upon himself.

"The first access was now ended. In a few minutes I felt my usual sang froid, without headache, or any of the symptoms that accompany inebriation from wine, and much astonished at what had taken place. A half hour had hardly passed, when I again fell under the empire of the hachisch. This time the vision was more complicated and extraordinary. In an atmosphere confusedly luminous, thousands of millions of butterflies were sporting, their wings rustling like fans. Gigantic flowers, with chalices of crystal, enormous holly-roses, beds\* of gold and of silver rose and spread themselves in blossom around me, with a crepitation similar to that of bouquets of fire-works. My hearing was wonderfully developed; *I heard the sound of colours*, green, red, blue, and yellow sounds came to me in waves perfectly distinct. An overturning tumbler, the noise of a rocking-chair, a word pronounced in a low voice, vibrated and resounded within me like rolling thunder. My voice seemed so strong that I dared not to speak from fear of overthrowing the walls of the room, or bursting myself like a bomb-shell. More than five hundred clocks, with their silvery and flute-like tones, sang to me the hour. Every object slightly touched gave a sound like the harmonicon, or the Æolian harp. I swam in an ocean of sonoriety, where floated like small islands of light, some melodies (motifs) of *Lucia* and of *the Barber*.

"Never before had such beatitude inundated me with its waters. I was so lost in vagueness, so absent from myself, so debarrassed of *self*, that odious witness which accompanies one everywhere, that I for the first time comprehended the nature of the existence of elementary spirits, angels and souls separated from the body.

"I was like a sponge in the midst of the sea. Every minute I was traversed by waves of happiness entering and going out through the pores of the body; for I had become permeable, and, even to the most minute capillary vessel, my whole being was imbued with the colour of the fantastic medium into which I was plunged. Sounds, perfumes, light, came to me through multitudes of capillary tubes, in which I heard the whistling of magnetic currents. According to my reckoning, this condition lasted about three hundred years; for the sensations were so numerous that the real appreciation of time was impossible.

"The access having passed, I found that it had lasted about a quarter of an hour."

Another access occurred, but without translating the account of it, we may use the words of Gauthier himself, at the close of that account,—"*voilà bien assez de folies.*"

Having subjected himself to the effects of the hachisch, at various times and in diverse degrees, M. Moreau perceived "in its action upon the moral faculties a powerful and unique means of exploration in the sciential pathology;" he "was

\* *Lits*, in the original, but it should probably be *lis*,—lilies.

persuaded that, by it, one might become initiated into the mysteries of alienation, might penetrate to the hidden source of those disorders, so numerous, so various and so strange, which are designated by the term insanity."

This advantage, he appears to think, is owing to the asserted fact that, throughout all the erratic phenomena of thought and action produced by the hachisch, consciousness, and the power of observing and rationally appreciating those thoughts and actions, are preserved.

"To understand the mental processes of the insane, one must himself be deranged, but deranged without losing the power of judging of the psychical modifications of the faculties." Were we to admit the truth of this proposition of our author, we must still believe that he has put himself in the position of one who "begs the question" of an argument, by assuming that the mental condition in insanity, and when under the effects of the hachisch, is the same. He pretends, it is true, to have demonstrated that identity, but nowhere in his work can we find satisfactory evidence of such proof. The psychologic analogies, in the two conditions, are, as he has clearly illustrated, both numerous and striking, but the positive sameness of those conditions is, if not an assumption, at least a questionable inference.

Again, it is asserted that, under the influence of the hachisch, the mind is "in a veritable state of dreaming; but of dreaming without sleep." It consequently follows that in dreams, in insanity, and acted upon by the hachisch, the mental condition is identical. "The same difference," says Moreau, "exists between an insane man and a rational man (I have reference to the same individual) as between the man who dreams and the man who is awake." Here, again, that which he believes to have proved, is, if we understand his argument, merely an inference drawn from analogy.

After a long exposition of the similarity of the phenomena of the three conditions mentioned, and a discussion of the nature of illusions and hallucinations, the author devotes a section to "the action of various toxic substances," in which he arrives at the conclusion that, under the influence of nitrous oxide, opium, alcohol, belladonna, aconite and other narcotics, the mental condition is the same, and this condition is identical with that of insanity. Still further, he maintains, and proves, satisfactorily to himself, at least, the same identity of mental condition as applied to persons affected with cerebral determination of blood, under the powerful effect of passion, in a state of revery, (half-sleeping and half awake,) under high febrile excitement in convulsive affections, and subjected to the protracted effects of hunger, thirst, or cold. Granting all this to be proved, M. Moreau may well be entitled to the appellation of the Newton of mental pathology.

But in what manner has this generalization been effected? how this identity proved? "Not" says M. Moreau, "by a course of reasoning; not by inductions, the truth of which may always be suspected, but by facts which no doubt, no uncertainty can affect,—simple facts being made evident by interior observation." If we rightly comprehend the work before us,—and we have read it with much care—if we rightly understand the nature of the *observation interieur*, *observation intime*—to which he so frequently alludes, if we have properly appreciated the language and the logic of M. Moreau, the identity of condition in question is only deduced or inferred from the evident analogies which are shown by a comparison of the phenomena of his own mind, when under the effects of the hachisch, with those of the minds of dreamers, the insane, and persons subjected to the influence of the several substances, disorders, passions, privations, and exposures already mentioned.

In this opinion it is possible that we err. The author may have proved this identity, satisfactorily to himself, by tracing the mental phenomena in each and every condition, aforementioned, to a radical unity of cause, called by him the *primordial fact*. Permitted, as he claims to have been, to enter a hitherto unreached apartment of the temple of the soul; allowed, as he claims to have been, to be the first to investigate the abnormal intellectual processes by what he denominates *intimate*, or *interior observation*; blessed by being the Humboldt of the world psychologic, and looking abroad over the mental domain from a mountain-height never before attained, he believes that he has discovered "the primitive source of all the fundamental phenomena of delirium."

"There is one," says he, "which appears to be the primitive and generating fact (*fait*) of all the others. I call this the PRIMORDIAL FACT."

What is this prolific primordial fact? Let the author answer. It is "excitement (*excitation*), the primitive, generating fact of all the phenomena of delirium." p. 98.

"Let us repeat, then, that neither the will, nor the instinctive determinations become irresistible (as in impulsive insanity) in virtue of a lesion peculiar to themselves. There exists a primitive lesion of the understanding, a profound lesion, which, however, is sometimes so transient that the patients can hardly explain it to themselves, and with difficulty render any account of it. And still, this lesion is essentially the same as that from which arise all the phenomena of mental alienation, the most evident and the most strongly characterized. It is the primordial fact of insanity, it is excitement." p. 135.

"Now, the phenomena (illusions and hallucinations) which remain to be studied, escape not the common law which attaches all the principal phenomena of delirium to excitement, that primitive mental modification, primordial and generating fact of all alienation, which is contained within it as in its germ, as the trunk of the tree, its branches, leaves and flowers are contained within the seed." pp. 146-7.

"We shall always find excitement to be the primitive and generating fact of illusion. Whatever be the condition of the mind, by what emotions soever we may be agitated, so long as excitement does not supervene, there can be no illusions of any kind." p. 152.

"The hallucinatory state (for he says that 'properly speaking there are no hallucinations, but only a hallucinatory state') comes from the primordial fact which is the source of all the anomalies of the mind. It is a phenomenon of the interior existence, of the inter-cerebral life, or, that which is the same, of the state of dreaming." p. 168.

"Excitement constitutes the immediate effects" of the narcotic vegetables formerly used by sorcerers. "Excitement is, as we have so many times asserted, the primordial or generative fact of all disorder of the mind, but it is essentially a stranger to the particular forms which these disorders may assume." p. 202.

"Wherever an intellectual anomaly is observed, there will be found, as the generalizing and primordial fact, a disaggregation of ideas, or, if you please, excitement." p. 208.

"Here, in prolonged hunger or thirst, as always, the scene opens by all the most positive evidences of maniacal excitement" (p. 309) already declared to be the primordial fact.

"We find in these effects (of prolonged cold), as in all the other conditions of delirium, which we have passed successively in review, the clearest symptoms of intellectual excitement, of that state of semi-sleep, of dreams coincident with the waking state, which discloses the primordial state." p. 314.

"We have demonstrated experimentally," (that is, by the detail of cases, and the comparison of their symptoms,) "that wherever the curious phenomena of hallucinations are presented to our observation; that wherever this phenomenon is connected with the acts of real life, we infallibly find the psychical conditions, the intellectual modifications,—in other words the dynamic nervous lesion which the action of the extract of Indian hemp has taught us to understand, and which we have already designated as the primitive source, the generative and primordial fact of all the other pathological phenomena of the moral faculties." p. 316.

We had marked several other paragraphs of a similar character, but sufficient have already been quoted to show the views of the author in regard to excitement, and the relations between it and the diverse pathological conditions of the mind. Now, granting, if you please, to M. Moreau, that he has proved this "primordial fact—excitement" to be the primitive source of all mental disorder, we would ask, wherein is the difference between *this* excitement and *that* excitement to which all authors and all physicians have, from time immemorial, referred, when they have made use of the word in reference to insanity.

"We believe," says he, "that the primordial fact of which we have, in various parts of this work, sufficiently delineated the characters; that this primitive necessary source of the fundamental and constituent phenomena of delirium, has

completely escaped the observation of our predecessors," p. 357. We repeat, then, in what constitutes the essential difference between the mental excitement that has ever been acknowledged in insanity, and that hitherto veiled and recon-dite excitement, discovered by the *interior* and *intimate* observation of Moreau? The work itself throws no light upon this subject.

Although we think that the author has failed positively and fully to demonstrate the propositions the truth of which he believes himself to have established, yet it must be acknowledged that he has succeeded in the exposition of more numerous and striking analogies between the mental phenomena of insanity, dreams, narcotic influence, &c., than the reader may have supposed to exist. The work shows much study in the department of mental pathology: it is ingenious in its theories—for *theories* we think some of the propositions are—and it contains much interesting and valuable matter.

We hasten to conclude this notice, already more prolix than was intended, by a slight exposition of the most practical, though unfortunately the least elaborate portion of this work, the division devoted to therapeutics.

From several "considerations" detailed in full by M. Moreau, he deduces "a precise indication which may be expressed in a formula thus; preserve in delirium tending to a chronic state, its first acute condition, or recall that acuteness—revive, it when it is threatened with extinction."

"The extract of Indian hemp is," says he, "of all known medicaments, the most eminently adapted to fulfill this indication." The history of seven cases of insanity, in which the hachisch was employed, is then detailed. The results in these cases were as follows.

CASE 1st.—After the immediate effects of the hachisch had passed, the maniacal excitement returned, but was less severe than before. *The patient was obliged to work*, the excitement remained stationary eighteen or twenty days, when it completely disappeared and the patient returned to his family cured.

CASE 2d.—Took the hachisch on the 6th July. Convalescence progressed rapidly, *the patient worked with ardour*, "the general delirium entirely disappeared, but there still remained a disposition to illusions. Some days afterwards, he thought he saw his brother among the patients; I showed him that such could not be the fact, and he readily perceived that he had been made the dupe of an illusion. During the remainder of the time until he was discharged I did not observe the least trace of delirium."

CASE 3d.—This patient had hallucinations of the sense of hearing, took the hachisch, but still hears false voices, although, says the text, "he has never again fallen into the primitive maniacal delirium."

CASE 4th.—Took hachisch in the beginning of July; towards the end of August was convalescent, though his extravagant ideas had not entirely left him. *He was compelled to work*, and a few days after, "he might be considered as cured."

CASE 5th.—Took hachisch September 17th, "entered freely into convalescence" towards the end of November. Remained in the asylum as a "*garçon de service*."

"His reason is as lucid as his conduct is good, and in all respects irreproachable."

CASE 6th.—Took hachisch June 5th. The next day he was better. "Some days afterwards he was sent to the farm of St. Anne, where *manual labour contributed promptly to his re-establishment*."

CASE 7th.—Took hachisch June 5th. July 1st, no sensible amelioration. July 2d, took hachisch again. "From the 2d to the 25th of July, the excitement evidently diminished. The patient takes better care of himself and progresses towards a cure. On the 14th of September he left the asylum in perfect health."

Such were the results of all the cases related by M. Moreau. It is left to our readers to judge of their value, as evidences of the therapeutic merits of the hemp, in insanity.

Dr. Conolly, in a clinical lecture upon mental disorders, says, "I believe there is very little of the genuine Indian hemp now in Europe, but if our observation of its effects in this asylum (Hanwell) is not altogether erroneous, it must become an important article in commerce. After some careful trials of the tincture of hemp, I feel justified in speaking well of it. It is chiefly useful, I think, in chronic cases. A drachm and a half, and sometimes two drachms, have frequently been given in chronic cases of recurrent mania, and although generally with good effects, sometimes without any effect whatever."

P. E.