

BRAIN TRANSFERENCE.

HOW IT RESULTED IN CHANGING THE NATURES OF ITS SUBJECTS.

BY ROBERT DUNCAN MILNE.

There is a certain private asylum in the vicinity of Oakland, the location of which it is not necessary for me to mention, as I am dealing not with names or places, but with facts. However, its identity will be apparent to many, when I say that it is presided over by a gentleman, who, besides being a physician and surgeon of acknowledged skill in his profession, holds a high rank not only in our local philosophic and scientific circles, but also in those of the world at large. Some might term Dr. G.—an enthusiast, and upon certain questions, no doubt he is, others might term him an empiric, and in the best acceptance of that term, that is to say, in so far as empiric deals with the endeavor to demonstrate the truth of theory by experiment, he is certainly open to the charge.

The patients of Dr. G.—are of the better class. They pay well for their accommodation, and in turn receive the best attention which medical skill can afford. The number of cures which the doctor has effected in acute cases of hypochondria and mania, as well as in graver ones of almost hopeless insanity, attests the accuracy of his diagnosis and the wisdom of his treatment. That is one reason why his name as a man of science is as high as it is, and also explains why his establishment is patronized by the *élite* of the State.

There is nothing about the appearance of Dr. G.—'s residence in consonance with the conventional idea of the private asylum, sanitarium or *maison de santé*. On the contrary, it looks like the mansion of an affluent gentleman, situated within its own ample grounds, which are set out with lawns, flower beds and shrubbery; in the usual fashion. Only the initiated would understand the significance of the more than ordinarily high and strong iron railing which surrounds the grounds, and the apparent needlessness of the lodge-keeper who opens the gates to visitors.

I have had the honor of Dr. G.—'s acquaintance for several years past, and frequently take the advantage of a standing invitation to visit him on Sunday. Some six weeks ago I paid him one of my accustomed visits, and was ushered as usual into the doctor's private study. While I waited, my eye ran over the multitudinous and heterogeneous details of the apartment with which I was already so familiar—cabinets filled with curious surgical instruments, other cabinets, the shelves of which contained numberless bottles of drugs and chemicals; others again reserved for chemical apparatus, mineralogical and botanical specimens, and what not; the walls covered with physiological and anatomical plates; the tables littered with the latest scientific magazines in all languages—in short, just such a study as is characteristic of a specialist and man of science.

Presently the door opened and the doctor entered. He greeted me warmly, as usual, but I thought I could detect a peculiar glitter of the eye, an unwonted flush of the cheek, and a certain preoccupation of manner which seemed to indicate that something unusual was engaging his attention or ideas.

"I am glad you have come," he said, after the customary greetings. "I am about to perform a peculiarly interesting and novel experiment, and though it is not particularly hazardous to the patient, still I prefer to have the presence of a witness on whose discretion

I can rely, and who, also, knows how to appreciate the true nature of such an experiment, in case—," here the doctor paused, as if at a loss for an expression.

"In case what?" I remarked interrogatively.

"Well, in case," resumed the doctor slowly, "the matter should become the subject of an official or judicial investigation. Mind you," he proceeded with greater emphasis "you are perfectly irresponsible for whatever may occur. You are merely an onlooker, that is all."

"But," said I, not feeling altogether reassured by the doctor's language, "you have not told me the nature of this experiment."

The doctor paused again, as if studying the best way to reply.

"You have read, I presume," he said at length, "of a very beautiful piece of surgical work performed the other day in New York, in which the cranium of a cat and that of a dog were simultaneously opened and a portion of the brain matter of each having been extracted, an interchange was effected?"

"Yes," said I, "I recollect reading about some such operation."

"I continued," he continued the doctor, "no evil results followed; no inflammation set in, the brain matter thus interchanged, settled quite naturally into place, a complete junction was effected, a successful graft was made."

I assented.

"Now," continued the doctor, "what is good of one animal is good of another, is it not?" If this interchange of cerebral matter can be effectually accomplished on the higher species of mammalia, such as the cat and dog unquestionably are, why not equally so in the case of the human mammal?"

"Pardon me, doctor," I interpolated, "are we right in drawing such absolute conclusions from one, or even from a few scattered instances?" Dr. Koch —

"Dr. Koch be — that is to say," interrupted the doctor, "Doctor Koch is not the only practitioner who is an experimenter also. I wouldn't give a fig for one who couldn't use his chances, if he had them. What, though a few worthless elements are sacrificed in the pursuit of knowledge, are these at all comparable to the benefit that may spring from their sacrifice to the race in general?"

"Do you mean then —," I interjected, but before I could proceed the doctor, — he is a very powerful man — brought his right fist down on the table before him, or before us, if I should say, as we happened to be seated *vis à vis* at the round centre table of the study, with such emphasis as to momentarily rob me of the power of speech.

"I mean this," he said, to the accompaniment of the blow on the table, "I mean that you *shall* witness—whether you will or not—the experiment I am about to perform."

The first thought that struck me when I heard these words was: Can the doctor be mad? Is it possible that his mental faculties can have become impaired, contaminated, so to speak, by long association with those under his charge? The peculiar dilation and brilliancy of his eye—a feature which I had never before noticed—led me to think that such might indeed be the case. Then again, I had heard of mad-doctors going mad through association. My train of thought was, however, very summarily interrupted by the doctor eyeing me as he lay back in his easy chair, in, as I thought, a highly supercilious manner, and remarking, in the calmest possible voice:

"Calm yourself, my dear young friend.

No harm can possibly befall you. You are simply hypnotized, that is all."

As the words fell from his lips I at last directly realized my position. I could write a volume on my sensations, but they can be succinctly summed up in the statements that I had not the *will* to leave the easy chair in which I was seated. There was the most thorough and accurate perception of all that was going on around me, but it was of a passive character—the power of volition was gone.

I thoroughly realized the humiliating and dependent position in which I was placed, robbed of my personality, robbed of my individuality, and that all that goes to make up responsibility and identity, yet the sensation was rather pleasing than otherwise.

"Now," observed the doctor, as he rose from his seat with a triumphant glare, and walked toward one of the bookcases, "now that I have secured you for a witness, I will explain still further the drift of my meaning as to the experiment we were talking about."

Stepping to the bookcase he took down one of the books, turned over its leaves and said:

"Hem! In order that you may fully realize the purport of the momentous experiments I am about to make—an experiment, my dear sir, before which Dr. Koch's victory over the microbes and bacilli will pale its ineffectual fires—I must make you thoroughly aware of what the science of phrenology drives at and teaches. Ah! here it is, 'What is phrenology but a theory of mental philosophy, founded on the observation and discovery of the functions of the brain, in so far as it is concerned in intellectual and emotional phenomena?' Dr. Gall, for instance, was at last led to conclude, first, that the brain is the aggregate of many parts, each serving for the manifestation of a particular mental faculty; and, secondly that all other conditions being equal, the size of each of these cerebral organs is a measure of the power of its function."

"There I!" went on the doctor triumphantly, "what do you think of that? The *size*, mark you, the *size* of these cerebral organs is a measure of the power of its functions. Now suppose we reduce or increase the size of these organs, what then? We shall see."

Here the doctor got up from his seat, walked over to one of the cabinets—that in which the surgical instruments were kept—opened it, and took thence, one that looked like that known to carpenters as a bit-stock, or brace, only that instead of the ordinary boring bit at its lower extremity, there was what seemed to be a small hollow cylinder, about an inch in diameter, the lower rim of which was serrated with extremely fine teeth like a saw. The doctor held it up and examined it with an eye of critical approval, and ran his forefinger along the points of the saw-teeth to test their sharpness.

"This," said he, tapping the instrument, "is a trephine, and it is used for trepanning, otherwise boring holes in skulls. Just the thing to get at the brain," he added, absently. A high thought flashed across my brain.

"Did he mean to experiment on me? I felt that if he did I was in his power."

He seemed to divine what was passing in my mind.

"Don't be alarmed," he remarked. "I could have no object in practicing upon you, when I have infinitely better material at hand. You are simply here as a witness."

So saying he touched a hand-bell which was presently answered by a servant.

"Go and tell Mr. Wyatt and Mr. Andrews that I would like to see them in my study," said the doctor.

The servant withdrew, and returned pres-

ently accompanied by two gentlemen, one past middle age the other still a young man. The bearing of the former was meek, almost to subservience, while the younger man carried himself with an air of inflated dignity and pride, indicating at once from what peculiar form of monomania he suffered.

"Will your Imperial Majesty please be seated," said the doctor to the younger man with a low bow, at the same time pointing to a seat. "Mr. Wyatt," he added, parenthetically to myself, "merely imagines himself to be the Czar of Russia. Perfectly harmless hallucination. Mr. Andrews, on the other hand, is afflicted with exactly the opposite delusion. He is the essence of humility and veneration—imagines himself a mediæval saint, St. Simeon Stylites by preference. He rarely assumes any but a kneeling or standing position." On this occasion, however, he will take a seat. St. Simeon," addressing the older gentleman, "as a mortification of the flesh, for the nonce, it behooveth thee to sit."

The old gentleman, crossing his hands upon his breast, dropped into a chair which the doctor set close beside that of his companion.

"There are several of my patients," went on the doctor, "over whom I exert a habitual hypnotic influence, which it only requires a word to bring into action. We shall now proceed to business."

So saying the doctor wheeled a small table close to the seated men, and arranged upon it several shallow porcelain dishes, together with some surgical instruments, besides sponges, lint, plaster, a razor and a lathering pot. Taking up the scissors he stepped close to the younger man, and began clipping the hair close upon a knob, or protuberance, which jutted abnormally from the top of the back of the head. After cropping the hair as short as he could with the scissors, he next lathered and shaved the spot over a circular area about the size of a dollar, the subject meanwhile giving no external evidence that he knew what was going on. The same operation was then gone through with the older man, though in his case the spot shaved was exactly on the top of the head which towered upward like a miniature dome, he, too, remaining perfectly passive.

"Now, perhaps, you may begin to understand what I am about," observed the doctor. "This gentleman," indicating the younger man, "has an abnormal development of brain in the region of the organ of self-esteem. St. Simeon, on the other hand, suffers from an excess of brain matter where the bump of veneration is located. I am simply going to equalize matters; that is all."

The doctor now took up the instrument described as looking like a carpenter's brace, terminating in a small cylindrical saw, which I saw was pivoted upon a central pointed pin. This he carefully adjusted to the centre of the shaven space at the back of the head of the younger man.

"We shall now proceed to take the conceit out of the Czar of Russia;" he said with a grim smile, as the brace turned swiftly in his practiced hand, and the keen teeth of the trephine ground their way through the crunching skull, the subject, or patient, meanwhile betraying no symptom of uneasiness, or even of appreciation of the matter.

In a very few seconds the doctor desisted, laid down the trephine, and took up a silver forceps, with which he deftly removed a circular disk of bone about the size of half a dollar, which he placed upon one of the

porcelain capsules on the table. Turning quickly to his other patient, he performed the same operation upon him. Then putting down the trephine he took up a metal spatula which he proceeded to insert first into the one cavity then into the other, extracting from each a small portion of brain matter of the same size and shape, which he deposited side by side upon another capsule, letting them remain there, however, only for a moment, the interchange of Mr. Wyatt's brain to Mr. Andrews' skull, and *vice versa* being effected with all possible speed. The discs of skull were then carefully replaced, each in its respective cavity with the usual adjustment of antiseptics, bandages, etc. All this I watched with a critical eye, as if it was the most natural operation in the world.

"Now," said the doctor coolly, as he adjusted the last bandage, "we can congratulate ourselves that the operation has been most successfully performed. These gentlemen will never know what has happened unless they are told, and even then they would not be able to appreciate its significance. They can stay where they are for an hour or two yet, till their brains get settled. Let us go to dinner.

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This incident, as well as the peculiar circumstances under which I witnessed it, made a very deep impression upon my mind, but it was not till nearly a month afterward that I again visited the establishment of my friend the doctor. I found him in an unusual state of elation. Not only had a perfect junction of the brain matter thus transferred and interchanged from the one patient to the other been effected, but a most marvelous result had also taken place in their moral natures. The younger man, Mr. Wyatt, whose peculiar hallucination had arisen from his abnormal bump of self-esteem, and who had imagined himself the Czar of Russia, was becoming quite rational and bearing himself like an ordinary mortal, while Mr. Andrews, on the other hand, was no longer posing as St. Simeon Stylites, but was beginning to exhibit decided symptoms of a healthy accretion of self-esteem. The doctor, however, is not going to give the result of his experience to the world as yet, but will wait till time shall have proved it, in either case, beyond the possibility of a relapse.

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