

possession. We Russians however are so accustomed to such things that they do not in the least surprise us, but they make us sad at heart. Even under the evil conditions of our life we still retain an ardent love of freedom—and how much freedom have we? Even the Turks are freer!

The family of Ivan Petrovitch consists of five persons. They are in great need, and yet Mrs. Belokonski has been forbidden by the governor to teach or give private lessons, and she finds it very difficult in a small provincial town to get any other work. You may ask, "How, then, do they live?" Mrs. Belokonski has thus far been able to support herself and her children by selling or pawning her furniture and moving into smaller and cheaper quarters. She has to support, moreover, not only herself and her children, but her imprisoned husband. The Government allows him only two rubles and thirty kopeks [ $\$1.15$ ] a month for food; and in order to keep him from losing strength and breaking down from semi-starvation, she has to buy food and carry it to him in prison. Fortunately, she is a woman of strong character. If she were not, there would be nothing for her to do but lie down and die.

I should like very much to read your last articles, but I dare not ask you to send them to me, and must postpone a perusal of them to a more favorable time. With a warm grasp of the hand, and with most cordial regard, I am,

Yours sincerely,

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Comment upon this letter is unnecessary. My friend Mr. Belokonski will probably go to Siberia by administrative process for having my articles in his possession, and I am almost powerless to help him.

What does the Russian Government hope or expect to accomplish by "blacking out" articles that aim simply to tell the truth with

regard to Russian affairs, and by throwing into prison every man in whose possession such articles may be found?

The Russian author Prugávin, in a book that was inadvertently sanctioned by the press censor, but that was afterward seized and burned, asks this same question, and says: "Can an idea be choked to death? Can thought be killed, buried, or annihilated? Are not truth, and love, and justice, and freedom immortal? It is the most terrible of mistakes to suppose that ideas can ever be crushed. People have perished — men have died in chains and casemates, their bodies have decayed, their graves have been lost, and their very names have been forgotten; but their ideas and aspirations live on. Washed in the blood of suffering, such ideas and aspirations have become the dream of every man in whose brain a thought stirs and in whose breast a heart beats."

The press censor, when he burned Prugávin's book, thought that he had destroyed forever its "pernicious" influence; but the "ideas and aspirations" of the gifted author "live on"; and his words, although burned by order of Government in Russia, will appeal to hundreds of thousands of sympathetic hearts in England and the United States.

Some time in the far-distant future the free Russian patriot, no longer blinded by the censorship of the press, will look over the pages of his national history that record these attempts to gag public opinion and strangle human thought, and will wish from the bottom of his heart that so humiliating and shameful a record might be "blacked out."

George Kennan.

## A STUDY OF CONSCIOUSNESS.<sup>1</sup>



THE extraordinary success of the novelettes "Archibald Malmaison" and "The Strange Case of Dr. Jekyll and Mr. Hyde" has been largely due to the dramatic excitement of their plots, but part of it has been the result of the amazed interest with which even the imperfectly educated are in these later days beginning to contemplate themselves. For centuries the questions, Whither am I going? and What shall I be? have thrilled and dominated human thought and human feeling; but as the strange nooks and crannies of the human organism have been more and more

revealed by the light of research, side by side with speculations concerning the future press forward inquiries as to the present. Not only do we ask, What shall I be? but also, What am I? In consonance with this questioning, in pulpit and on platform the Ego is perpetually the theme of eloquent discourse. To define, in terms clear and sharp, the exact meaning of the Ego of the popular philosopher would be a task of difficulty; but certainly underneath all human individuality is the faculty or attribute of consciousness.

If, in a general company, the question should be asked, Is there such a thing as unconsciousness? almost every one would at once reply, "Of course there is. The stone is unconscious; the corpse is unconscious; we are unconscious in sleep." Such answers

<sup>1</sup> See also "Memory," by the same author, in THE CENTURY for March.



would, however, be too flippant. I am not going to assert that all matter has consciousness, but it is certainly very difficult to prove that either the stick or the stone is unconscious; at least I know of no way of positively demonstrating it. If we analyze our ordinary tests of consciousness, I think that we shall find that each of them belongs to one of three groups. In the first place, the conscious person or animal does acts which seem purposive, *i. e.*, he does acts which look as though they were performed for a definite purpose, consonant with his surroundings. In the second place, when the conscious person or animal is irritated, a response is given. Thus, we speak to a man, and he answers; we throw a light in his face, and he shows signs of recognition; we pinch him, and he cries out; we hit him, and he strikes back; we kick him, and he departs. In the third place, there is memory of events. If the quiet, apparently inanimate corpse awakes to complete consciousness and describes how the wake has been furious around his bier, we know that during his passive condition he was conscious. When a mass of living or dead matter performs no purposive action, yields no signs when irritated, and has no after memory of events, we say that such a mass is or has been unconscious. Each of these tests of consciousness is by itself fallacious. The most vivid consciousness may exist, and one or more of the tests fail entirely. Do three naughts joined together make a whole number? Does the heaping up of fallacies give us an impregnable fortress of truth? If I am able to show the correctness of my assertion that each of these tests of unconsciousness is fallacious, I insist that there is no absolute proof of unconsciousness.

Practical examples of the failure of each one of these tests singly by itself, to prove the presence of unconsciousness, might be multiplied indefinitely, but for brevity's sake I will content myself with the narration of a few instances.

The first test is that of purposive action. Not long ago I was consulted by a woman who had epilepsy, and who belonged to the lower walks of life, and was accustomed to do her own housework. Suddenly and without warning she would at irregular intervals utter the terrible cry which so often ushers in the epileptic storm, and fall in a convulsion. After the fury of motion had passed, she would remain quiet for a short time and then rise and continue whatever work she had been doing when the attack came on, although she was entirely unconscious,—at least she yielded no sign of recognition when spoken to or shaken,—and afterwards had no recollection of events. Thus, if she had been setting the dinner-table

when the epileptic paroxysm developed, she would go into the kitchen, get the dished-up food and arrange it on the table in the usual manner. By and by she would wake up, saying: "Where am I? What am I doing?" She did not know what she had been doing. There was no memory of the labor she had been performing. If in this condition she were spoken to, she gave no heed. If a hot iron were thrust into her flesh, she would not mark it.

One day, while I was in my ward in the Philadelphia Hospital, suddenly there was a shriek, and a colored man at the farther end of the room, with a bound, rushed towards the door. There was a convulsive struggle, and the man was thrown and held by the assistants. It was a case of running epilepsy. If let alone the man would run for half a mile, then suddenly come to himself and wonder how he had reached where he was. Trousseau's famous case of the master builder of Paris is parallel to this. While overlooking the erection of one of the many palaces for which that city is noted, suddenly, with a cry, the man would rush from scaffold to scaffold, up and down steep inclines, never falling, passing with a steady head over places where he dare not go when conscious. There was an apparently purposive action, and yet when the man came to himself he had no memory of what he had done, and during the time of the attack he did not respond to irritation.

The facts of somnambulism and artificial hypnotism also show that it is possible for a man to act for a purpose and yet not be able to control himself or to have a true recognition of his surroundings. Moreover, in some, but not all, of these cases, the person on awaking remembers what he has done, although during the attack he would not respond to irritations, unless they were in immediate accord with his mental state. Related to this condition are the so-called night-terrors, in which the screaming child, terrified by some dream, seems to be awake, but is, in many cases at least, not really awake, and cannot be soothed or brought to recognize his mother for a long time. As instances of somnambulism, I cite the following cases.

One night the prior of a German abbey, going to his cell much later than usual, was astonished to see one of the monks passing along the hall with a wild, fierce expression of face, a drawn dagger in one hand and a light in the other. The superior watched the monk as he walked, with staring eye and determined mien, to the prior's door and opened it. The prior followed him without noise. The man placed the lamp upon the table, went over to the prior's bed, felt cautiously with the hand that



was unarmed, and then with the dagger struck three times so forcibly that the knife went through the bed-clothes and the mattress. Now the light of triumph came into his face, and picking up his candle, he marched out of the room and back to his cell. The next morning the prior sent for the monk. The man was evidently embarrassed. He was asked if he had had a quiet night. "No," he said; "I had a restless night." "What was the matter?" "I shall have to confess," the monk replied. "I dreamed that you had murdered my mother, and that I was impelled by wild fury and revenge to go to your room and stab you to death, and that I succeeded. When I awoke, the sweat stood on me with horror at the deed, and on my bended knees I thanked God that it was but a dream." It is needless to say that after that night the good brother was locked in his cell every evening.

A case which ended less favorably occurred some years ago near Edinburgh. At the trial of a man named Yellowlees, for the murder of his child, it was proved that even in his boyhood, when living by the border of a stream in the Black Forest, at night he would rush out of the house, screaming the name of a sister of whom he was fond, would go down the bank into the raging torrent feeling for his sister, and then with a yell of triumph go back to the shore. Sometimes he would stand at the edge of the stream crying, "Help, help!" Yet he was perfectly unconscious; even immersion in the cold water failed to awaken him. He would go back to his bed, and remember nothing about it, and wonder in the morning how he had gotten so wet. As he grew up to manhood, married, and had a family, the attacks, continuing, took a different form. At night there would come to him a great light streaming through an opening in the floor, or mayhap through a window. With this there was a vision of great beasts rushing towards the sleepers. He would jump out of bed in terror, and attempt to drive these beasts from his family. It was in such somnambulist and unconscious condition that he had seized one of his children to drag her away from the beast, and had hurled her with such force against the opposing wall that she dropped a limp and lifeless mass. In these dream attacks the man did apparently purposive actions, and he had sometimes some after-memory of the events; but at the time he had no knowledge of his surroundings and no knowledge of himself, and, as oftentimes he could not be awakened, he did not respond to external stimuli.

I shall give one or two other cases, as they are very curious in themselves. They show especially that there may be loss of power of responding to irritations with complete know-

ledge or consciousness of things going on about the person, and with memory of events.

Gueneau de Mussy reported to the French Academy the case of a woman who had gone to sleep in 1808 and in 1838 was still sleeping. With the legs drawn up to the abdomen, the arms on the breast, the eyes tightly closed, her frame emaciated to the last degree, and with the ebb and flow of the aerial tide of respiration scarcely perceptible, that woman lived on through the decades, fed now and then with a crumb. There are a number of well-authenticated cases like this, but in none that I know of has the condition continued so long. The sleeping girl of Turville slept through eighteen years. Cases in which the sleep has continued for days, weeks, months, or years are not rare. This morbid sleep is nothing more than what is normal in many animals. The bear sleeps through the long winter months without food or motion.

Closely allied to this morbid sleep is hysterical trance, in which the power of recognition passes away; all muscles settle into absolute quiet; the pulse becomes more and more feeble, until it can no longer be felt at the wrist; respiration appears to cease, so that even a feather held over the mouth gives no sign; and the man or woman seems to be dead. When under these circumstances consciousness is preserved, the so-called *lucid lethargy* results, a condition which may follow an attack of acute disease with effects to the sufferer most dire. In the Wiertz Gallery at Brussels two companion pictures, which attract almost universal attention, illustrate the closing scene of a cholera tragedy. One portrays the father carried in a rough pine box by ruffians to his burial, in spite of the frantic outcries and impotent resistance of wife and children; the other represents the scene a little later: in a dark and noisome vault the coffin lies with others piled upon it; its occupant, recovered from his lucid lethargy, has burst open the lid, and, with agonized face peering through the rent, is violently struggling to get out. The counterpart of this picture has without doubt not infrequently been enacted during maddening epidemics. In my boyhood a familiar figure in Philadelphia was that of a gentleman of the highest repute, who sat at the head of a Quaker meeting in which I spent many weary hours, and whom I watched but too often with the most earnest wish that he would shake hands with his fellows and let us out. It so happened that in one of the yellow fever epidemics that ravaged this city in the later years of the last century, Mr. B—— took the disease and passed into a condition of lucid lethargy. There was no pulse that could be felt, no respiration that could be seen, no moving of an



eyelid, yet every word spoken in the death-room was registered in his consciousness. They washed the death-sweat from off him, and robed him in a shroud; the touch of the cold water and the soft embrace of the folded fabric thrilled him alike with horror, but he gave no sign because he could not. Just as the coffin lid was about to be screwed down, a supreme despairing effort caused a slight movement, and his condition was recognized.

If all our tests of the presence of consciousness fail, how do we know that anything is unconscious? We do not, in fact, know that anything is unconscious; we simply believe that things are unconscious. Unconsciousness is a negative condition, and we only arrive at our belief by a process of negative reasoning based upon the absence of certain attributes. A negation is never an absolute proof.

Stranger than all these vagaries of consciousness are those which cluster around the mental condition known as double consciousness. In double consciousness a person leads two lives. Let me cite an instance, one of the first on record. A young girl, quick, active, full of life and animation, suddenly complained one day of a very severe headache, and lay down on the bed. She became unconscious, but awoke in a few moments conscious, although no longer the being that she had been. She was a stranger in a strange land. The father, mother, sisters, and brothers were unknown. The results of years of education had been annihilated. She knew no more of her native tongue than does the child just born. Where vivacious before, she was now dull; where apt to learn, she was slow; where before slow to learn, she was now apt. She had to be educated over again. She lived her life, learned her lessons, until she could read and write, and knew her friends once more. Suddenly the headache again came upon her, and a deep sleep fell over her. She again woke up to the old being; the language acquired in infancy had returned to her; the facts learned through long years were with her; the acquaintances of the old time were her friends. The acquaintances, the lessons learned, the facts and events of the second period, however, she knew no more. So she went on until again the headache returned, the sleep was again on her, and she awoke again her second self. At the very page where her education had been interrupted in the second state it was now taken up. She recognized the friends of the second state, but she knew none of the first state. So through years she lived on her double life, now one person, now another; each state being connected with, or rather a continuation of, the previous corresponding state. In such a case the lawyer and the theologian alike might argue a long time concerning personal

responsibility, and the metaphysician labor in vain to define the Ego.

The number of cases of double consciousness on record is not great, but sufficient to establish their existence beyond cavil. In one life a woman has been quiet, contented, domestic, virtuous, while during the other period she has been full of wickedness and unchastity. When in this case the consciousness of the good state was forced to recognize the fruits of the evil-doing of the bad state, the woman was dumfounded with horror. These cases of double consciousness are inexplicable. There is, of course, a sharp break in memory, but there is more than this: there is a total change in character, in modes of thought, in habits of action; a new being seems to have sprung into existence.

If memory alone be abruptly cut off, the results are different. The sense of personal identity which we all have depends upon the recollection of a practically unbroken series of events connected with ourselves. If such recollection be lost, the person does not know his own identity. Simple abrupt loss of memory involves only loss of the sense of personal identity.

During the Centennial Exhibition a big, burly Scotchman was brought to the hospital unconscious from sunstroke. I plunged him into a mass of slush and water and piled great masses of ice about his head. As he gradually struggled back to consciousness, his first sensation was that he was packed away in an ice-box and doomed. When he came more fully to himself, his first inquiry was, "Who am I?" I said, "Who are you?" This he could not answer. For four days that man lay in the hospital, apparently perfectly rational, wondering who he was. During all this time his friends were searching, and had detectives looking for him all through Philadelphia. At last his recollection came back, and he was able to give his name.

Some years ago in one of our Southern cities a man was seized by the police and taken to a hospital, where he told the following story: "I know nothing who I am or where I came from. All I know is that I found myself on the railroad platform a short time ago. I then drifted into a hall and heard a temperance lecture; goaded into fury by the eloquence of the speaker, I rushed out and began to smash the windows of a neighboring drinking-saloon; a consequent attack on me by the roughs led to my arrest by the police and my being brought to the hospital. That is all I know; who I am I cannot tell." At the time of the publication of the report of this case the hospital authorities had not found out who the man was.

Clearly related to the so-called double con-



consciousness is a mental state not rarely seen in insanity. A case reported in a Scotch medical journal shows very clearly this relation. Every other day the man was a typical melancholic maniac, and every other day he was a perfectly sane, active business man. On Monday he would sit with his face in his hands, utterly indifferent to his surroundings, overwhelmed with his weight of woe, and groaning in the agony of his spirit; on Tuesday he would be active and alert, attending to his business with shrewdness and success; on Wednesday the apathetic melancholic state would come on. On a well day he could never be made to understand that he had insane days; on an insane day he could not be made to believe in the existence of his bright days. On a bright Tuesday he would make engagements for Wednesday, and he would insist that he was the same every day of his life. His inability to receive evidence that he had insane days was, during his sane days, the only evidence of mental aberration.

We see glimpses of a similar violent, abrupt change of character and of thought in other cases of insanity. I watched through long years a woman suffering with an apparently hopeless melancholia, whose final recovery I have seen resembled but never completely paralleled. She had been the most refined and elegant of women. Taken in middle life with insanity, for fifteen long years her character was altered, her demeanor was changed, her personal being was something else than it had been. She was bowed down always with the terrible woe of a lost soul. Suddenly one evening that woman went down on her knees and prayed the livelong night. She had an attendant, wise beyond women, who let her alone. When morning came the lady arose and said she had found Christ. Her old character had returned; the original elegance of manner was registered in every act; the original delicacy of thought came out from the recent almost brutal crudeness, like blossoms from a forest of wood in the early spring. This lasted for a few days; then she said the cloud was coming, and as the dark thunder-cloud drifts across the sunny landscape, so there came over her the shadow of a great woe. After days or hours she would suddenly raise her head and say, "The light is coming"; and out of the darkness the old gentle, persuasive being would come forth, with no traces of insanity about her.

Before phenomena like these science is dumb. Merely in the presence of ordinary everyday consciousness, without voice is that science which can drag from the bowels of the earth

the records of creation, and can reach to the sun to weigh and analyze the power of the present. Consciousness is the one supreme fact of the universe, mysterious, inexplicable for all time, beyond human understanding.

We take a little mass of living matter. We call it protoplasm. We notice that it is tremulous with self-endowed motion. We find that it is almost structureless, containing only some little shapeless granules. We analyze it in the chemist's retort, and it is carbon, hydrogen, oxygen, and nitrogen. And now we say we know it; but how are these elements grouped together that out of their dead atoms should spring molecules endowed with the greatest power of all powers—the power of knowing?

The beginning of a man is a speck of protoplasm, a formless particle. One such little mass is to us indistinguishable from its fellows; each is structureless, yet within each are the records of innumerable generations passed, and the potentialities of generations manifold to come. One shall develop into a fool; another into a man who shall fill the world with the fame of his intellectual greatness, or, mayhap, with noise and blood and the misery of war; out of one shall come forth a monster of wickedness, out of another a saviour of mankind. Yet to us all of these beginnings are precisely alike. If we cannot, with the crude, blundering tools we call the microscope and the retort, make out any differences in these simple little masses of protoplasm which are yet so different, how can we ever tell the story of the waves of ruin, distress, and change which sweep to and fro over the human brain? If we cannot fathom the mere speck of germinal protoplasm, how can we ever hope to know the changes of the most complicated nervous protoplasm gone mad?

If the limitations of science in the study of our own organism be so narrow, how impossible for it ever to fathom the Infinite Spirit. Science does not, and cannot with propriety, deny the existence of a Supreme Being. The long, convergent lines of its study stretch out to a far-off focus in which dwells the First Great Cause; but to science the nature of this originating central force or being must forever remain unknown and unknowable. Science knows consciousness only as an attribute of matter. To religious faith alone is it given to apprehend consciousness as an abstraction—consciousness self-existent and eternal, unclothed from material form, but clothed with infinite attributes of power and goodness; consciousness that is God.

*H. C. Wood.*