tion with the gentler sex. I have gone further, and in this ward of mixed cases I have put a night female nurse in charge. She attends during the night just as a male attendant would, and if assistance is required to attend to weakly and bed-ridden patients she receives the assistance of the night female patrol, who visits at intervals. The patients in this ward are as substantially cared for in every respect by the female staff as they would be by male attendants; and although it is only eighteen months since we opened this ward, my experience leads me to say there is a great future for the nursing of the male insane by female nurses. Of course we do not expect acute homicidal cases, or the class of men who are given to exposing their persons, to be exactly a suitable class to place under female care, but if you exclude such classes I am of opinion that every other class of cases can be advantageously placed under female nurses.

Dr. TURNBULL.—There is very little to reply to, especially after the way in which you, sir, have introduced the discussion. I am glad you gave the system a trial, and I recommend Dr. Thomson to give it a trial before condemning it outright. With regard to what Dr. Jones said on the question of expense, that did not enter into my calculation. At the Fife Asylum it was not done on such a scale as to greatly affect the expenditure, either one way or another. At the same time I have heard Dr. Robertson say that it does work out better, and that for the same expense you can double the number of the staff. Dr. Jones rather gave the impression that the good effect was simply a mental or a moral one produced by the nurse upon the patient. I think it goes much further than that, and it was what you yourself indicated, that they can do those little touches of nursing and attention to patients and the details of management in a way that few men can. Dr. Howden, of the Montrose Asylum, used to say if he were ill he would not have a female nurse; he would have a man. And one allows for the personal equation; but nursing cannot generally be done with anything like the same deftness and tact by men as by women, and I think we are doing quite right in taking advantage of the feminine faculty. It struck me very much in Meerenberg that it is not a good thing to mix the staffs. It is better to secure the best points in each, and not run either side to the extreme. Dr. Thomson says he might not have more than a dozen cases ill in his asylum of 450. We have 270 males, but we have six general paralytics in bed, besides our other sick cases in the ordinary work of the asylum. And if you admit that bodily sickness is as well nursed by women you must also admit that general paralysis is a form of bodily sickness in addition to its mental symptoms. I was very pleased to hear what Dr. Morrison said, because he did me the honour, before he introduced the system, of writing and asking my experience. He gave me the impression that he was going to introduce it at one fell blow all over the male side, and I was afraid that might prove a failure. But I am delighted to learn of his success on the scale on which he has actually employed it. The system has given me much satisfaction, and I think every one who tries it on right lines will find it a success.

A Case of Double Consciousness. By ALBERT WILSON, M.D.

THIS remarkable case of double consciousness was under my constant observation for about four years.

It involved chiefly mental phenomena, and though I could find no evidence by any physical signs of alternating action of the two halves of the brain, yet the status should be kept

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in view by experts in determining a possible causation for these events.

For the purposes of classification I will call her normal self A and her abnormal condition B, subdividing it into B 1 to B 12, as she exhibited not merely one abnormal state but more than a dozen such sub-stages.

At the beginning of her illness the abnormal appeared for short periods, from a few minutes to an hour; but as time went on the normal decreased in time and frequency, occurring only for two or three minutes, and at intervals of days, until it has finally completely vanished, and she has now been living in the abnormal condition for years, making her own way in the world.

There are three conditions about these several abnormal sub-stages which are constant, and should be kept in view throughout the history:

1. Each sub-stage appears and disappears at quite irregular intervals.

2. Each sub-stage has its own special characteristics.

3. Each sub-stage is continuous with itself,—that is, when any particular sub-stage appears it commences where the previous attack of the same sub-stage left off. Therefore any particular sub-stage has its memories limited to its own events, and knows nothing of the life or incidents of any other sub-stage. Each sub-stage or personality is, then, complete in itself.

But the abnormal had a faint glimmer of the normal. Perhaps this might be aided by overhearing conversation about herself. In the normal, however, she was absolutely ignorant of what happened in the abnormal. This applies also to physical suffering, for in one abnormal stage she was liable to toothache, and if she returned to the normal the toothache likewise disappeared.

These separate personalities were "switched" on and off without apparent rhyme or reason. Yet there was always some physical disturbance. It might be pallor and exhaustion of passing duration, or she might fall off a chair, becoming cataleptic or paralysed in the legs, or there might be loss of consciousness approaching coma. There never were epileptic fits, though about three times she had convulsions, and once or twice complete coma.

Among the varying personalities, there was to begin with

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more or less complete loss of all previous knowledge; whilst her character or Ego was much modified. Thus she might become an amiable child, or cruel and wicked, or a hopeless imbecile, blind and paralysed, a deaf mute, a maniac, or finally lose all sense of moral tone and responsibility, either to thieve or even to try to kill.

The patient was a bright, intelligent girl twelve and a half years of age at Easter, 1895, when first taken ill with influenza. There is no history to record except that there was great trouble shortly before her birth, when the home had to be broken up.

Though the influenza passed off in a week, yet she was left with an attack of meningitis, and remained in a serious condition for six weeks. There was a high temperature, intense headache aggravated by light and sound, and great weakness. In the third week she was delirious and maniacal. She had intense fear, chiefly of imaginary snakes. During the attacks, though so weak, she developed great strength. She was ravenous for oranges, and this detail indicated later that this was the first of the abnormal personalities. She was mentally blind in that she could not recognise people, yet a hand or any crease in the counterpane became to her a snake. In the fourth week fits occurred; first choreiform jerkings, then opisthotonos with lividity followed by coma. These fits would occur ten to twenty times a day. In the fifth week recovery set in and intelligence returned. In the sixth week catalepsy developed with paralysis of the legs, and quite suddenly she developed this double consciousness. It occurred in this way. Whilst in bed reading or playing with her dolls she would commence shaking, and clear a space around. Then she would say, "It is coming," turn a somersault, and sit up on the bed in this new personality. Often she would call out "Holloa" as if unexpectedly greeting those around her. Her facial expression was altered; it became childish. She also clipped her words like baby talk. She did not know the names of things. If asked about her legs she would say, "What dat?" "What legs mean?" and if touched would say, "What? dese sings legs?" and so on. On the other hand, if one touched her nose she might call it her ear; so that she had a store of words, only not the proper associations. She also reversed qualities, calling white, black; black, white; red, green; and so on.

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When asked to read, she would misname letters, or call them alternately N and O; but she learns quickly. As to writing, she can copy, but cannot write to dictation, as if some word-deafness. She always writes backwards; not mirror writing, but commencing at the tail of the last letter of a word. She applies nicknames to her family and friends, but this had happened for two or three days before the first somersault, when she showed a gradual change in her whole manner. Thus she called her father "The Tom" or Tom, her mother "The Mary Ann," the nurse "The Susan Jane," her sister F. "The gigger," her sister A. "Sally," her brother F. "George," Dr. H— "The Jim," Dr. T— "The Sam," and others. During the attack she says she is "a thing" and not a girl, and she refuses her proper name. Using her correct name, she says she is very cross with that person for going and leaving her. She also says she hates that person, for every one likes that person but does not like her, meaning in her present abnormal state. So the abnormal B has some conception of the normal A; but when the normal A returns she knows nothing of B the abnormal, yet knows that there is some sort of attack which she describes as "going to sleep," and says she feels as if she were dying. There is inability to stand, but she can move her feet and crawl. Cataleptic attacks occur. Sometimes she is drawn up like a ball, so that one can lift her *en masse* by one limb. They last about ten minutes, and any sudden noise or start will bring them on. It was not until July 20th, 1895, that I saw her in her normal state. She suddenly changed to the normal, and was very modest and well-behaved for a child of her age. In the abnormal she was noisy and very familiar in her manner. She told me she knew nothing of these attacks, and she said she had not seen me before. This is very remarkable, for I had seen her nearly every day for ten weeks, and she had heard my voice, so that in her abnormal condition she and I were very old friends. In about five minutes she changed back to the abnormal. She put on a very annoyed expression, pouting and frowning. In a minute her features relaxed, she smiled, and began chatting in her usual way.

I have kept a chronological record of the various sub-stages, which would fill a small volume; but I propose only to deal with the chief sub-stages, leaving out five or six which were ill-defined. As a rule she gave herself a name in each sub-

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stage, or, if not, we suggested one. Thus in the last described she was called "a thing." We have now seen two sub-stages:

B 1, the mania, with fear of snakes and great thirst.

B 2, "a thing."

Whilst admitting the intricacy and dense obscurity of this and similar cases, yet I wish to advance a theory for consideration. It seems to me poor fun to label this hystero-epilepsy and toss it aside, shutting one's eyes to the vast issues which such a case raises in our social economy, especially in the question of the day, Individual Responsibility, whether viewed from the legal or the moral aspect. I think the tendency of to-day is to regard hysteria and its many manifestations as a disease of the sympathetic system. We all know the patches of flushing that occur on the face and neck of certain persons; while in opposition to the local hyperæmias we have local anæmias and lividities as in Raynaud's disease, chilblains, so-called "dead fingers," and allied diseases. We have also local hyperæsthesia and local anæsthesia.

Are not all of them dependent on vaso-motor changes? These we might term the coarse manifestation of disturbance in the sympathetic system. If we instead apply the same vaso-motor changes to the delicate cortex of the brain, must we not be prepared to find aberrations from the normal brain functions?

There is exaggerated ideation and motor explosion in cases of cortical hyperæmia or congestion. Such might be the case here during the maniacal attacks B 1. But where loss of memory occurs as in the B 2 sub-stage, is it not possible to conceive that the blood-supply may have been shut off in the Broca area, or part of it? The microscope reveals to us only some of the finer blood-vessels and capillaries of the cortex, but it has not yet shown us the most delicate system of channels which bathe the individual cells and fibres in lymph or serum. The spasm of one arteriole which we can see may curtail functions in a group or layer of cells or association fibres with very surprising results. Nor have we as yet traced the terminals of the sympathetic vaso-motor fibres in the cortex. Yet the same must exist; Nature would never leave her work imperfect. Therefore, while we must not dogmatise, yet we may speculate, and speculate with reason on an unknown physical condition which may have a vast influence on psychical phenomena.

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B 3, or the third abnormal personality, was called "Old Nick," and was a very frequent and prolonged visitor. It first appeared on July 24th, 1895, two months after B 2 ("a thing") had occurred. B 3 ("Old Nick") stayed till August 8th and then disappeared for a year, returning July 12th, 1896, when it stayed for ten weeks. "Old Nick" had a very violent temper, but was always very sorry afterwards and said, "It is a naughty man that comes." "Old Nick" could as a rule walk, and could read and write from the first, so there was not the same amnesia for names and objects as in B 2. "Old Nick" also had the best health of any of the personalities, which perhaps throws a side-light on the etiology of neurasthenia.

The following incidents illustrate some of the special features of the case:—Whilst in this "Old Nick" state the patient's mother was ill in bed. The patient attended carefully to her mother, whom she styled "Mary Ann." One day she returned suddenly to the normal, and was both surprised and distressed to find her mother ill; and could not understand it, for her mental association was with the last normal period when her mother was up and in good health. The patient had several times been at the sea-side, but when taken in this B 3 stage to Maldon it all came as a new and surprising experience. She returned normal once or twice, and in a particular road, so her father conceived the idea of calling her persistently by name when she walked down this road. She would then return to normal, and after some time as soon as she entered that road she would, without any aid, return to her normal state, passing back to "Old Nick" when leaving it. The day after coming home, having been "Old Nick" on the journey, she returned to normal, and was very puzzled to explain her arrival, being unconscious of the journey.

The following event illustrates the continuity of the sub-stages:—On Sunday, September 20th, 1896, "Old Nick" left about 2 p.m. in the middle of her dinner. She stopped eating and fell off her chair dazed; when this passed off she had changed to another sub-stage. "Old Nick" next returned on a Sunday, April 4th, 1897, about the same time, that is during the dinner-hour. She was ill in bed in an imbecile state when she suddenly called to her sister, "What am I in bed for? I am quite well. You have been quick in getting my nightgown on me. Don't you know me? I am Nick." She smelt the dinner

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and asked to go down and finish her dinner, thinking it was the same dinner she had left on September 20th.

B 4 was a deaf mute, and first appeared on August 8th, 1895, at the end of "Old Nick's" first visit. It returned five times during the illness, for a few days only at a time. It comes and goes quite suddenly. She makes her thoughts known by writing.

This brain area ought to be easily localised—namely, the centre of speech and hearing with their association fibres. Arterial spasm or anæmia of these convolutions might explain the phenomenon.

B 5 was a personality which only came once and lasted about three weeks. It arrived on December 1st, 1895. In this sub-stage she says she was only three days old, and knew no one at first. She understands everything in the house, and is very good in helping her mother. She writes in the ordinary way, but if asked to spell a word does so backwards. She complains of pain in the left temporal and parietal regions.

B 1 arrived again on December 20th, 1895, when the last sub-stage disappeared. This I described as occurring in the third week of the illness. The features were violent mania, fear of snakes, great thirst and craving for oranges and lemonade, and headache; in fact, she was constantly asking for the water coil she formerly had for her head. This sub-stage and B 2 ("a thing") alternated until the beginning of March, 1896.

B 6 was a personality very like B 2 ("a thing"), but was gentler, more modest, and more refined. It appeared first on May 6th, 1896, and became a very constant visitor; in fact, she is now living in this sub-stage and supporting her own livelihood. The normal personality A was now a rare visitor, perhaps not appearing for a week or more, and possibly for only three or four minutes at a time.

B 6 we named "Good thing," or "Good creature," or "Pretty dear." It was not the same person as B 2 ("a thing"), because while "a thing" had now learned to read and write "Good creature" could not do so, and had to be taught. B 6 was more intelligent than any of the others, and learned French. A striking feature is that no other personality could understand French. B 6 also replaced B 2, which till now had been the common visitor.

Another instance of continuity of the different sub-stages was

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shown in the following circumstance:—B 6 ("Good creature") suddenly left at 9 p.m. on December 29th, 1896, returning on the evening of May 13th, 1897, and was excited and disturbed because she could not explain her surroundings. She had jumped suddenly from December to May, from winter to early summer. She asked how the cut flowers were there, as it was winter according to her memory, and being lamp-light she could not estimate the season.

On this occasion in May she changed from "Old Nick" to "Good creature" at about nine in the evening, and returned back to "Old Nick" in daylight on July 1st. She was again much disturbed to find it was daylight, for when she was last "Old Nick" the lamp was lit, and her father, whom she called "Tom," sitting beside her having his tea. She expected to see him, whereas he was in the City.

A more remarkable illustration is found in connection with her two visits to the sea-side. In August, 1896, she went as B 3 or "Old Nick" and bathed and learnt to swim. In 1898, two years later, she visited the same place as B 6 or "Good creature;" she then was quite ignorant of the place, and had no memory of being there before, nor having bathed. Two letters written to me, one at each visit, illustrate this conclusively.

B 7 named herself "Adjuica Uneza," and came suddenly in May, 1896, and stayed for about a fortnight. She could not walk, and at first was very dazed. She had a remarkable memory for the small events of her childhood up to the date of her influenza, but she knows nothing that has happened since. Her memory of events which happened when she was between two and three years of age was very remarkable. As it has been shown by Bolton that the more superficial layers of small pyramidal cells of the cortex develop later than the deeper layers of larger pyramids, is it possible that the deep pyramidal layers were now called into activity by some stimulation, vascular or otherwise?

It commends itself to common sense that the deeper layers precede the more external and superficial in development and evolution. The converse I have seen in the brain of an alcoholic wreck, with mental enfeeblement and degeneration even of the lower nervous system. In this case the superficial layer of small pyramids was distinctly atrophied. The association fibres did not show a corresponding amount of degenera-

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tion and disappearance as if they were hitched on to deeper strata of cells. The point that I wish to raise is that the vaso-motor changes would first affect these more distant cortical areas rather than the deeper strata, producing more psychic disturbance.

A sharp line of demarcation caused by the influenza and meningitis shut off the more superficial and external layer of developing pyramids with its mental pictures and memories. We may regard these higher psychic areas as damaged, for we see the ravages of meningitis, especially among the children of the poor. While many appear to recover and grow up to adult life, may not their whole personality be altered, as in this case? How many criminals and lunatics are handicapped in this way from childhood! The law, while keen for justice, is aptly personified as blind to mercy. Is it not for our profession to collect evidence which might lead to a better protection for society and a different principle on which to deal with the ever-multiplying criminal population?

B 8 was a short-lived personality, lasting only four days. On June 20th, 1896, she had convulsions, and was very lost. The following morning she knew no one, and said she was only born last night, so how could she know anything? However, she could read. Perhaps this is more a confusional or lost condition, post-epileptic. Still she was quite ignorant both of her normal self (A) or of any other sub-stage.

B 9 was, however, a most important sub-stage and a very persistent visitor. In this she was imbecile, blind, and at times deaf, and usually paralysed in the feet. The striking feature in this case is that when blind she could draw, while at no other period of her life, either normal or abnormal, had she any ability in drawing. Is not this some ancestral devolution or throw-back? She would call out for "picters" and "pencil," and set to work drawing the fashions which one sees in the illustrated papers. She was guided entirely by touch. We proved this by moving the paper when she was not touching it. She at once discovered the error and commenced feeling for the pencil marks, resuming the drawing in a correct manner. I also proved the blindness by holding a book between her eyes and the paper. Her eyes were, however, normal, and Mr. Tweedy kindly confirmed this opinion. Once or twice when examining the retina, the stimulation of the light brought her

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to the normal condition. In this state she was a pitiable object, the vacant face expressionless, the eyes protruding as if the ocular muscles were paralysed, and the pupils widely dilated. Usually she understood nothing, and there often seemed no way of communicating with her. Sometimes for hours she would roll beads on a tray; at other times she wrote verses from memory, or the names of persons she knew; or she would copy, only in this she was guided by touch and not by sight. This seemed the most remarkable feature in the whole case. To what was the blindness due? It appeared to be organic, all the ocular apparatus paralysed. The calcarine area would probably escape. Dr. Bolton has shown this to be the visual area, in the sense of the recording sensitised plate, but here there was no psychic blindness, for her visual ideation persisted. It was the photographic apparatus which was disorganised. In seeking an explanation, there may have been paralysis of the roots of the second, third, and fourth, ciliary portions of the fifth and sixth nerves. Perhaps all was connected with superactivity of the cervical sympathetic, shutting off vascular supply in these ocular districts which must be connected. Other opinions might incline to a paralysis of Bolton's visual area.

Was the imbecility due to the blindness, or did it coincide, due to a shutting off of higher psychic centres, as the prefrontal? How, also, can we account for the extra keenness of touch and hearing, as with those who are blind for years? This mental darkness lasted for three to four weeks from December 29th, 1896; but she returned suddenly to the normal on two occasions. On January 3rd, 1897, she suddenly regained her sight and became her normal self for about two minutes. She was quite her ordinary self, and called to her sister, "I can see you," and asked some questions. On January 17th she also returned three or four times to the normal, and told her mother she felt quite well, but sometimes felt "to be dying and to go right away." When the normal state occurs she can walk. I tried to rouse her out of this imbecility by beating a tea tray with a key; but she took absolutely no notice, though the noise was deafening and unmusical in the extreme. As time progressed her intelligence improved a little; she began to know people and things at more lucid intervals.

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At the end of January she had some vision, but was short-sighted. She could discern colour and pictures four inches off, but could not see about the room. This we proved by testing her in various ways when she was able to walk and grope about. Her hearing became very acute, compensatory for the more or less complete blindness.

B 10 was a sub-stage showing decided moral degeneracy. She herself was so conscious of her wickedness that she named herself "The dreadful wicked creature." She was violent and cruel, bullying her little sister, and on one occasion would have forced her into the fire if help had not arrived. Does not this case throw a side-light on the dangerous criminal? Are not the more rudimentary brain cells, which have to do with the lower animal functions, let loose in fury and without control or guidance? To what extent, then, are such responsible? Ought not the State to care for uncontrollable unhealthy beings the same as for lunatics?

Another moral delinquency was shown in the sub-stage B 11, but of a more harmless type. This sub-stage was rather mixed. She could walk, and resembled B 2 in that she wrote and spelt backwards, but also resembled B 6 in that she understood French. Her chief characteristic was that she was bent on stealing, and defended it partly on so-called Socialistic principles. Thus she argued, "If people don't give you things, why, nick them. Quite right too, if you are not found out." She also carried her object into practice, and one day took an orange from a shop door, but seeing a policeman approach went back and replaced it and made off. Here is exhibited also the protective instinct after the act.

I stated before that pain might occur in one sub-stage and be absent in the normal. This was demonstrated in the case of toothache. Whilst in B 2 sub-stage ("a thing") she had a good deal of toothache. It always disappeared when she became normal. On one occasion we gave her chloroform during B 2 stage and extracted the tooth. She was very unwilling at first, but most pleased to be free from the pain afterwards. Her father coaxed her to the normal state (A), and this lasted for ten minutes. She at once detected the gap and the blood, and was quite surprised, and asked how it was she never felt any pain or knew anything of the chloroform.

A nerve specialist, the late Dr. Althaus, witnessed this perform-

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ance, and was greatly interested in it. About a year later, when B 3, or "Old Nick," she again had toothache, but the toothache left her if she went into any other condition.

Another illustration of the isolation of different sub-stages was shown by the following occurrence:—Once, whilst showing me a toy wigwam which had been given to her in the B 3 or "Old Nick" stage, she being then in that state, she suddenly dropped the toy and passed into a new stage, a variation of "Good thing" or "Good creature" (B 6). In this new personality she commenced talking, but could not be induced to take any interest in the wigwam, which she declared she had never seen or handled before. As soon as she returned to B 3 she resumed her interest in the toy.

Another minor detail bearing on the same point was that some sub-stages feared thunder, others did not, and so on. When she grew up to be about sixteen, the normal stage (A) had practically gone for ever. She was sometimes B 3 ("a thing"), but more usually B 6 ("good creature"), a very nice docile child. I instructed the parents as to careful training, and they had broken the habit of baby talk and the forward free manner which belonged to almost every abnormal personality. They also called her by her proper name, and she would say, "I suppose such is my proper name;" "I know I have been ill and done funny things, I have been told about it." Her general health had all through been attended to, and when crippled she rode in a bath-chair. She was by no means helpless or stupid. Often in these abnormal states she did errands and made calls, or went to church alone. Menstruation, which was irregular at first, never made the slightest difference so far as we could detail.

When about seventeen she developed another modification, perhaps a personality, B 12; in it she was very self-willed, and would not listen to her parents. She had a great affinity for the opposite sex. She announced that she wanted a young man and would have one. She carried her point, leading the attack. However, by careful supervision and tact all went well. Perhaps this may not be considered an abnormal stage, but the uncloaking of the normal. This difficult stage of affection for the opposite sex seemed to be paroxysmal, and fused into B 6 or "Good creature." It did not persist. As B 6 or "Good creature" she gradually took her place as an ordinary individual.

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No one would suspect any alteration, yet one who knew her can see that the original Ego, the sum of personalities, is gone.

This case would suggest that whereas heredity and ancestry form the basis of mind and modify the type, experience and education form the superstructure. Education and experience must equip various groups or districts of cells and association centres. The more groups so developed, the higher the state of memory and intellect. Thus each life, or the true Ego, is made up of so many active mental centres or personalities, some good and some bad according to circumstances, inherited or acquired. Where the binding cement is weak, we get the mentally unstable as here, and this opens the very serious question which constantly affronts us—that of Responsibility.

Résumé of Sub-stages.

B 1. Mania, fear, thirst. Rare visitor.

B 2. "A thing." Writes backwards, amnesia, childish, catalepsy.

B 3. Often paralysis of legs, ignorant. Very constant visitor for the first year.

B 3. "Old Nick." Bad temper, can read and write. The best health of any of the sub-stages. Frequent visitor for three years.

B 4. Deaf mute. Made five short visits.

B 5. "Only three days old." Came once.

B 6. "Good thing" or "Good creature." Like B 2, but more refined and more intelligent. Had, however, to learn reading and writing afresh. She learned French, and was the only one who did so. Gradually replaced B 2, and after two to three years became permanent.

B 7. "Adjuica Uneza." Only came once. The features are a remarkable memory for the events of her life previous to this illness, extending back to when she was two years old.

B 8. One visit for four days. "Only born last night." Mentally blank.

B 9. Imbecile, blind, sometimes deaf, and motor paralysis; could draw beautifully, the only time in her life.

B 10. Moral degeneracy. Cruelty and violence.

B 11. Allied to B 2 and B 6. Tendency to steal and Socialism.

B 12. In adolescence. Fond of the opposite sex. Self-willed. Resented control.

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Discussion

At the Annual Meeting in London, July 17th, 1903.

The President.—I am sure we are very much indebted to Dr. Wilson for this very excellent and very fully described case of double consciousness; a more interesting case it would be very difficult to find. The manner in which the facts are stated is excellent; the varying mental phases of his patient are so accurately described and are in such full detail that they leave us no doubt as to the completeness of the case. There was one point which struck me, namely, that to which I alluded in my address yesterday—the question of re-education. We are finding at the present time that many cases of insanity drifting to the chronic type can be re-educated back to mental life, and I have been very much surprised by the possibilities in this direction. That is surely a point which a paper like this brings to one's mind, and I hope the discussion which is about to open on this excellent case will bear out the views that I hold.

Dr. Lloyd Tuckey.—I would like first to congratulate Dr. Wilson heartily upon his paper. It is a particularly interesting subject to me. I was introduced to it by Dr. Myers, who wrote upon it as far back as 1886 in an article in the Journal dealing with the history of a case of double personality. Since that time I have came across a number of cases. The most interesting lately has been reported in *Brain*, and also in the *Journal of the Society for Psychical Research*, by Dr. Morton Prince, one of the physicians of Boston. There are many of these cases, but I have never come across a case so interesting as Dr. Wilson's, and never one so fully reported. There are two or three little points which I might be allowed to comment on. One was with regard to the memory. In the other cases I have read, No. 1 (normal) personality was not aware of what happened in No. 2, No. 3, or No. 4 states; but generally the more advanced personalities were aware of what happened to Nos. 1, 2, 3, and so on. This condition was very often assigned, especially by French observers, to the double action of the brain, one side of the brain functioning and the other being in abeyance. But when one came to deal with three or four personalities of the same body I do not see how that theory could any longer be held. I have myself come across four or five cases of double personality. The only case I was able to follow up thoroughly was that of a bank clerk who was rather addicted to drinking—not to great excess, but he got drunk occasionally. On one occasion, a Friday, he disappeared from the bank and did not come back. He was suspended from the bank, and his family was greatly distressed. He turned up the following Monday, not knowing what he had been doing, only saying he had found himself at an hotel at Southampton on Saturday night, but he did not know how he got there. He took train back to London, and finally got home to his wife and family. I knew one of the directors of the bank, and approached him with the view of being allowed to hypnotise the man. I did so, and though he had no recollection of what happened up to the time at which he came to himself at Southampton, yet in the hypnotic state we were able to tap that level of unconsciousness, and he very slowly, in answer to our questions, disclosed exactly what had happened during the thirty-six hours of apparent unconsciousness; and I was able to corroborate the statements, because he called on various friends at Clapham Common and Guildford, and they were good enough to come and see me. They told me he had called, and that though he seemed rather dazed, and they thought he had been drinking, still he was rational, and able to get about by himself. The idea on his mind was that he was on a holiday, and was going by sea from Southampton to Dublin. He had made the trip once before, and he thought he would repeat it. He had no sense of responsibility; he left his wife and children without any news of him, and he seemed not to realise the necessity of letting the bank know where he was. The other case I heard of, but have not been able to get into contact with. The subject was a highly educated Oxford man, who had on three occasions gone off into a state of double personality. The last time he was reading for the Indian Civil Service, and had a prospect of passing well, but he disappeared. His sister saw him into the train when he was going to Folkestone for the week-end. He disappeared, and nothing was heard of him by his family for ten days, when a telegram came from Malta. He had passed into his natural state at Tunis when getting on board a

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French steamer. He knocked a man down, and the violent effort seemed to bring him back to his normal consciousness. He heard from the people around that the man had tried to rob him and snatch his portmanteau from him, and he knocked him down for it. He despatched a telegram to his people, and they sent him money by which he was able to come home. The idea was that he should be hypnotised, and that while in that state we should try to unravel what took place; but he objected, and nothing came of it. What made me think of hypnotism in these instances was the well-known case reported by Professor William James and Dr. Hodgson. Dr. Wilson was kind enough to show me his case some years ago, when I, and Dr. Bramwell also, tried to hypnotise her, but unfortunately we did not succeed.

Dr. MICKLE.—I am sure, sir, we are all charmed by the case which Dr. Wilson has brought before us. Indeed, some of us have seen the case in the flesh, through the courtesy of the author. When this paper is published, as I suppose it will be, it will be one of the most celebrated cases of the kind which we have. Of course the question as to what may be the condition which gives rise to or permits this secondary personality, or multiple personality, as in this case, is one which, in the present state of our knowledge, it is impossible to definitely answer. One can evolve a dozen theories on the matter, but perhaps the theory which Dr. Wilson brought forward is one of the most plausible. But I do not think that any of us can prove it scientifically in the present state of our knowledge. These cases are extremely important to us as physicians attending on the insane. I think that among our patients there is a good deal more of this kind of thing than is usually recognised, if one may judge by the text-books. I think if we study cases carefully we may find a whole range among the ordinary insane at asylums which would give a very large amount of light upon this subject when properly interpreted. In relation to that I would mention the change which occurs in the deluded insane where the patient, after a period of manufacture, so to speak, gradually arrives at the conviction that his personality is changed. For example, take the average common cases of paranoia, where the patient's identity gradually undergoes a change. At last he believes himself to be some person—human, or Divine, or devilish—entirely different from his original self, which still co-exists more or less; and although those personalities are co-existent, they throw light more or less on the successive personalities and alternations, such as we have had placed before us to-day. Indeed, in the very same patients one may trace at one time simply a change in the personality, at another the simple co-existing double personality, or, it may be, multiple personalities. In the case I have referred to, that follows upon a long train of reasoning. But there are cases in which those changes occur rapidly and suddenly—cases in which the person is well to-day, then passes into a state of delirium, and is two, or three, or four persons all at once. That same person, at another phase of his disease, may have successive stages of personality and alternation, one after another. Only the other day I observed a case in which there was a double co-existing personality at the same time; and then the patient successively thought himself to be not his usual self, but a sort of glorified usual self. And in alternation with that he was a personality who was under the influence of the devil—in fact, was himself converted into a devil. The language in the one showed he was in a state of glory and happiness. He was in a heavenly state, although he did not imagine himself in the heavenly regions. In the other state he thought himself a devil, and his language was of the foulest and most filthy description, full of blasphemy, imprecations, and all sorts of sexual nastiness. Here, therefore, within a short space of time one had a patient who manifested both a double co-existing personality, and personalities existing in succession. In the latter case he simply identified himself at one time with the one personage—we will call it, for convenience, the heavenly personage,—and in the other he was a devilish personage; and he showed the two extremes that a human being can go to in relation to that particular point. One might go on speaking of the different forms of insanity, and discuss the subject from that point of view; but I merely desire to draw attention to the cases of *co-existing* personalities which may come on suddenly, may come on with medium rapidity, or may come on as the termination of a long subterranean process of morbid thought; as having important bearings on, and relations to, the cognate subject of *successive* dual or multiple consciousness or personality.

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Dr. T. D. SAVILL.—I would like to add my congratulations to Dr. Wilson for the lucid though somewhat abbreviated account of the case which he has narrated. It was one which I had the pleasure of seeing in consultation with him some eight or ten years ago, and I very distinctly remember the point which he emphasises in his paper, how each of these different states took up the thread of the memory of the previous occasion. For instance, this child, when I first saw her, was in a particular state, I forget which; she was then changed into a state which had ceased previously during the dusk of the evening, when the gas was about to be lighted. And, although it was broad daylight when she returned to that state, she picked up the thread of that condition, asking if the gas was not going to be lighted. It was very instructive, and I think these cases would very well repay a committee or sub-committee of investigation at the hands of this Society. One very remarkable case was that of a lady, a painter, who went to a neighbour of mine in the same street. The last time she was seen was when she turned round the corner of the street in which my house is situated. She was found somewhere in the north of England. Of course it is quite admitted that it is a psychological phenomenon which we are dealing with, and therefore it properly comes within the scope of this Society. But, as a general physician, one comes across many cases where dual consciousness is only a subordinate feature of the case. I had the pleasure of seeing—in consultation with Dr. Meredith, who is here to-day—two years ago, the case of a young lady who went to the Queen's funeral, and in whom the excitement, assisted perhaps by alcohol, brought on what was evidently a hystero-epileptic seizure. As she came to out of it she was practically in the condition of a child, and she had renamed herself, much in the same way as Dr. Wilson's patient did; and she presented other features altogether different from her former self. It was some long time before she resumed her normal condition. She then remained normal for a time, and later, without very much provocation, she again assumed this childish state, associated this time with contracture of the left lower extremity and a certain amount of anæsthesia. Of course the pathology of these cases is very obscure. That hysteria is due to changes in the sympathetic system is a view which I have held for many years. But perhaps I might remind Dr. Wilson of Dr. Leonard Hill's researches. Dr. Hill holds that he has disproved the existence of the sympathetic mechanism in the cerebral vessels, and therefore we are at sea again. I think we must approach the subject from the clinical aspect in the first place. All these cases appear to have two leading psychical features connected with them. First there is a sudden loss of memory, or part of memory, and they do not use the knowledge and experience gained in their past life. In the second place there is a very distinctive alteration of character, not always for the worse, but generally so; there is a backward movement in the evolution of character. In these cases one is more inclined to adopt Myer's term, disintegrative personality, rather than dual consciousness. In investigating this subject I think that one ought to include those cases of sudden loss of memory, such as that extraordinary case which Charcot records in the third volume of his *Clinical Lectures*, where a man of very exceptional intelligence, and highly educated, suddenly lost his memory for forms and colours—for instance, he could not remember the colour of his wife's hair. In other respects he was all right. Secondly, in a certain proportion of the cases there is in association some physical phenomenon, some vaso-motor, motor, or other change which is manifest to the careful observer. The cases of dual consciousness are now fairly numerous, and I think this Society could usefully investigate them.

Dr. SCOTT.—The point which interests me is one of legal responsibility. When I heard that the question of double consciousness was to come on for discussion I was afraid that a new terror was to be added to life. We have kleptomania and all the other manias, and alcoholism, and degeneracy; and it is frequently very difficult to give a definite opinion in the case of a person whom one only sees for a short time, and as to whose antecedents one knows nothing. And I can imagine that if we are to go before a sceptical judge and an enlightened British jury and plead that a person should not be held responsible because his consciousness was in a Jekyll-Hyde condition, in a state of mental *alibi*, we would find our position a difficult one to establish. One of Dr. Wilson's remarks, I think, may perhaps convey a wrong impression as to what exists nowadays. He says the law, while

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keen for justice, is amply personified as being blind to mercy. On the contrary, nowadays I think that our judges are almost too ready to accept the plea of insanity, and in most cases, I can say from my own experience, they do take a very merciful view. So far as the individual's responsibility is concerned, I think that we may regard double consciousness from the same standpoint as we do the recurrent insanities. If there is a want of motive, and all the other indications point to an abnormal state of mind at the time, the judge and jury will always be careful to consider these factors and to give due weight to any such evidence.

Dr. ANDRIEZEN.—I believe a good deal of insight into the nature of double and multiple personalities might be gained from the study of epilepsy, and particularly cases we see in asylums. There we see instances where the sense of personal identity and individuality alters suddenly and profoundly in an epileptic fit. The new personality continues for days or weeks, and, as we know, it has various characteristics. Then, as the result of the occurrence of another fit, or some other event, the old personality returns and the new personality disappears. The ordinary epileptic insane patient forgets his name, and does not remember who or what he is. And if he is not insane, but a sane epileptic, like many who are at large, a sudden attack may make him wander about till he finds himself stranded somewhere. He may live thus many days, till his old personality comes back, and recalls him to his old life. A few months ago an undergraduate of Cambridge became a victim of this change of personality. He used to suffer slightly from epileptic fits; on one occasion he was out in the afternoon for a walk, and did not return. Some one met him, but when he was asked who he was he did not know. Finally he found himself in a village fourteen or fifteen miles away. He lodged there at an inn, and stayed some days without any particular incident occurring. At the end of that time his memory suddenly came back to him, his old personality returned, he knew who he was, and returned to the University. Such cases are not uncommon in medical literature of recent years. I remember reading of a case in America of a man who was an epileptic, lost his sense of personality, went to a far-off town, took up the occupation of carpenter, and lived and worked there for many years. He forgot he had a wife, and lived as a bachelor. After many years had passed he had a fit, his old personality returned to him, he remembered who he was, and returned to his old town and to his wife. How is it that epilepsy produces such a condition? We know that in the epileptic discharge every part of the brain is not universally affected; the epilepsy affects certain parts to the exclusion of others. What more likely than that in cases of the nature that I have quoted, an epileptic discharge occurring in certain parts or psychical areas of the brain should put certain centres out of action, the rest of the brain continuing to act? In that case the individual acts as though he had another brain, and therefore acts as a new personality. When the old centres come back into action that personality is restored. I do not think it is at all necessary to invoke the two hemispheres theory as proof of double personality. No satisfactory evidence has been given to show that one hemisphere represents one personality and the other hemisphere the other. The idea of Hughlings Jackson that one hemisphere is more voluntary and the other more automatic must be given up as wanting sufficient evidence. But others, of the French school, have taught that below the cortical level there is a whole series of centres which have to do with personality, and especially with automatic actions of various sorts; these they have described very fully. One is very glad to note that Myers and others of his school have come to practically the same conclusions. The fact that small portions of the psychical centres in the brain may be thrown out of gear from time to time would explain the large number of personalities which Dr. Wilson has reported. For instance, it struck me with regard to personalities Nos. 6, 7, and 10. One was intelligent and learned French, whereas the other had no knowledge of the language; and, of course, certain psychical centres connected with hearing and speech must have been involved in the one condition and been released in the other. There is no doubt about the throwing out of gear of certain parts of the brain. But why that occurs is altogether a different matter. This clinical and pathological way of looking at the matter, I think, must once and for all give the blow to the metaphysical theory that the mind is one and indivisible—a view which used to be taught us by our classical tutors, and which even in

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psychological medicine is still largely held. It seems to me, from experience and observation day after day for the last ten years, that every new fact which has been added to our knowledge on the brain gives a blow to that theory. The reference which Dr. Mickle made to paranoia is a particularly happy one. The long-continued conflict between the hallucinations on the one hand and the normal integrity of the *ego* on the other hand comes to this in the long run—that the integrity of the *ego* in the brain is destroyed, and a new personality of some form takes its place, generally grandiose. The same thing occurs, in a speedier way, in the development of hypochondriacal insanity, where also the entire personality sometimes alters; and large numbers of cases can be quoted from classical literature—the lives of saints, and so on. All stages from hypochondriasis to hysteria occur. It is curious to notice in modern literature that many individuals who are abnormal in mind, show evidence of abnormal personalities, and who have led extraordinary and eccentric lives, should be held up as great philosophers and saints, as has been done. I was thinking especially of that famous visionary Swedenborg, who certainly had more than one personality. I would add a few words upon the vaso-motor fibres in the brain cortex. It is said they have not been observed, and all sorts of theories have been built upon it. There is no question but that they can be demonstrated in the cortex, and I am ready to produce microscopic specimens of my own to prove that there are vaso-motor nerve-fibres in the blood-vessels of the cortex, at any rate of the pia mater. In 1894, at our Congress held at Dublin, I showed some specimens; but since then many observers have shown this condition on a much more complete scale, especially by staining with methylene blue. Observers from France and Germany and America have demonstrated under the microscope that there are vaso-motor fibres in the cortex. So Dr. Leonard Hill's theory, whatever it may be supported by, cannot negative the fact that a vaso-motor system exists in the cortex. If it does exist there, then this or that centre may be thrown into greater activity, or may be diminished in activity, by vaso-motor disturbances, such as may take place in any other part of the body. I simply mention this fact to show that in building a theory of "multiple personality" the presence of vaso-motor nerves would show that irregular action of the vaso-motor system may also have some effect in bringing about this disturbance of personality.

Mr. VINCENT PANTIN.—Dr. Wilson mentions that the colours yellow and green were reversed. If observers take certain mediums as subjects and study their ways they will find that many things get absolutely reversed—their writings, their ideas—under their other personalities, of which they have many. I think these are *bonâ fide*, whatever their origin may be.

Dr. ROBERT JONES.—I would like to add a few words of congratulation to Dr. Wilson on the way in which he has correlated these sub-stages into one of the most interesting cases that I have ever listened to. I had the privilege, through his courtesy, of seeing this case some years ago, and I have been reminded since of what Dr. Clouston said at one of the meetings of the British Medical Association many years ago at Birmingham—that the tendency of these shifting personalities was eventually towards absolute disintegration. He mentioned the case of a student at Edinburgh who was frequently hypnotised, and who could be made, by suggestion, to change from one state of personality to another. He ended his days at Morningside. Mr. Pantin spoke of the reversal of sensation, and it is within the experience of every one that when we speak of a straight line we imply that it is not a curved one. This is fully apprehended in the theory of vision promulgated by Hering. In Dr. Wilson's case white was mistaken for black, and when one form of sensation is brought before our consciousness the opposite is immediately suggested at the same time. The interesting thing in regard to the pictures, which form so valuable a supplement to this paper, is the fact that the patient selected, as a predominant colour, that from the blue end of the spectrum. In the language of some ancient races there is no word for *green*, but the word in Welsh, for instance, which indicates the colour of grass is *blue*, and colloquial Welsh describes the grass as blue. It is curious that this patient should have selected by preference this elementary colour—although I admit others were also used,—indicating, if one may suggest it, a reversal, or a throwing back, as it were, to a feature characteristic of an ancient race. The whole of the ground has been traversed so ably by Dr. Mickle and Dr. Andriezen in regard to the phases of multiple conscious-

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ness seen in various forms of insanity, that I need say nothing further about this aspect of the case; but, in addition to paranoia already referred to, the first stage mentioned by Dr. Wilson is, to a certain extent, closely allied to what we see in asylums in cases of premature dementia of young persons,—that is, an apprehensiveness or fear, such as the delusions of snakes and the cataleptic states already referred to. I think the best solution of these cases of multiple consciousness is to view them from the standpoint of evolution, *i. e.*, from the comparative anatomy standpoint, as suggested by Dr. Andriezen. The brain is not one organ, but a correlation of a series of organs which have gradually evolved from the simplest forms of animal life. In the nervous system of the *Annelida* you have all of these organs in separate segments. In the brain of man you have the various segments with their functions correlated into one organic whole—the visual area, the auditory area, the olfactory and other areas. Perhaps it is not surprising that occasionally these should be fundamentally disintegrated and tending to act one independently of the other. Furthermore, in this correlation characteristic of the healthy mind there seems to be a something, an "ego," which has a higher "apperceptive" power, and which appears to dominate the whole of the various parts, but which appears dislocated in some of these cases. It is interesting, in regard to the visual phase, that the report of Mr. Tweedy showed that nothing abnormal could be found in the retina or the transparent media of the eye, and he himself confirms Dr. Wilson's statement that upon examination nothing could be seen by the patient more than two feet away. I think we have had an extremely interesting communication, and I also think that the suggestion made by Dr. Savill is worthy of being taken into consideration by our President.

Dr. WILSON.—Mr. President and Gentlemen,—I can only thank you heartily for the very kind way in which you have received my paper, which I felt was rather a long one, although I tried to condense the facts as much as possible. Dr. Savill's suggestion is, I think, a very good one, and it would be a splendid thing if, especially in the great subject of our relations to the criminal world, we could have this subject more deeply investigated. I did not mention in my paper that Dr. Tuckey, Dr. Jones, and Dr. Savill had seen this patient, as also have one or two other medical friends, and that this girl always resisted hypnotism. When it was attempted she became what we term hysterical; she began to sigh and gasp, and was upset, and wanted it stopped. With regard to reversing things, that was very marked in the first stage, but not in all. I remember showing her two horses, one black and the other white, and she always reversed them. When this was done the colours were complementary. With regard to Dr. Andriezen's remarks, I am very glad to learn from what he says that the sympathetic fibres have been demonstrated in the cortex. Of course, when we see a very fine vessel in the brain, the very finest we can see, that does not represent the finality of the circulation, because that fine vessel surely spreads out like a fan, and probably feeds a whole group of cells. With regard to the dual action of the brain, split up into centres, it has sometimes occurred to me in reference to comparative anatomy that we might get some idea of dual brain action from the lower animals. In our own case our vision converges; we only look at one object at a time; but most other animals have divergent vision, so that they may really be seeing two pictures in their brain at once. If we take the hare, which has its eyes at right angles, it must see two pictures at once—in their case there is no optic chiasma, but I believe the optic nerve crosses to the opposite hemisphere direct. So it is rather an interesting point how the brain of the animal does act when it sees safety on one side and danger on the other, for it has got to analyse things and bring in both mechanisms.

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