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Part I.—Original Articles.

The Clinical Value of Consciousness in Disease.(1)

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ONE cannot but be struck with the fact that in many (if not in most) attacks of acute insanity the patient, on recovery, has no recollection of the incidents of the illness. She may have answered our questions in a way showing that at the time there was not only a consciousness of a certain kind present, but also the capacity for understanding and replying in accordance with her ideas (however unfounded they may, in fact, be), and yet on recovery, or even in a temporary lucid interval, all remembrance of the disordered state has passed away, and that, too, beyond the capacity of recall—nothing but a misty, hazy remembrance of some condition which has been passed through remains, just as one finds it impossible to re-instate the details of a dream, the reality of which was at the time vivid in consciousness. We have here to deal with a dual consciousness, a knowledge of states apparently incompatible with, and distinct from, each other. We are all familiar with states of acute mental disturbance where there is difficulty in making the patient understand what we are saying—not necessarily difficult or involved questions, but simple queries relating to what we think are matters in the patient's consciousness, such as it is. Here it is doubtful if the patients really *understand* what we are saying, though there is no doubt about their hearing the question, *e.g.*, they may hear the question

but the reply will be merely the reiteration of some particular delusion which has no connection with the question, or there need not be any reply at all, as if we were addressing them in a foreign language which they did not understand, or as if what is said to them has a different meaning from what is intended.

I had some time ago under notice a lady whose mental infirmity showed itself as one of doubting whether or not she had done things; for instance, she constantly undressed because she was in doubt as to whether she had put her clothes on properly; she would return again and again to a room which she had left, being uncertain as to whether she had attended to matters which she should have done; she would go to the top of the stairs and then turn and re-mount them, because she was uncertain whether she had properly counted the number of them.

In grübel-sucht, or insanity of doubting—and even in the ordinary life of people not insane—there are times when one is not sure of having done some act which one purposed doing, *e.g.*, having turned off the light when leaving the room for the night, and when the state is an acute or exaggerated one it leads to acts of repetition which may ultimately be so imperative as to be painful. The *feeling element* of the idea appears to be at the bottom of this—a sense of incompleteness which is relieved to satisfaction by the carrying out of the idea just as is felt in the projection of an impulse which is merely the discharge of a tensile strain. At the bottom of this state, analysis leads us to think that imperfection or absence of the true condition of memory is at the root of it. What we did was but the self-working out of an idea which did not rise up into the consciousness of having done it. It must, therefore, have been done on one of the lower (mere automatic) planes of mental action.

In all mental processes for consciousness to occur there must be a certain *intensity* or duration of stimulus, so that *time* and *force* are the necessary co-efficients of clear consciousness. If a book is read very quickly, so that time is not allowed for the sight-stimuli to influence the central organ, there is no memory of what is read, because there is no consciousness of it, and when speaking is too rapid and blurred there is a similar absence of consciousness and memory because

of the want of time and intensity, and if a mentally sound person is unable to record his various sequences of consciousness during the day it must be very difficult for an insane person to recall the stages of processes which were not under his control, and of which, therefore, the memory is hazy.

In dreaming we may be vividly conscious, not only at the time but afterwards on waking, of all that occurred, *i.e.*, we remember having been in such or such a state with all its accompaniment, minus, perhaps, the capability of muscular action, and at times minus emotion—here the upper cerebral centres would appear to have been in more or less complete action—so that it would appear as if in insanity, as in dreaming, there may be one of two processes at work. In acute insanity there may be a dislocation or irregularity, or partial functioning of the *higher ideational centres*, full of emotional tone vivid in consciousness, where memory remains and nothing is forgotten, not even the smallest presentation being overlooked—apt to revivify itself and start into a painful consciousness, just as in ordinary conditions a passive memory is often invoked by chance associations and contiguities, only to fade away by the obliterating influences of time. Or the attack may show itself in a *lower form* of consciousness, with perhaps noise but a *less elaborate system of delusions*, with a greater display of the more instinctive and organic functional forms of mental action, but leaving only a *blurred remembrance* of what has occurred—here the weight of the disease has fallen upon *lower centres*. It might be said that if this is the case, the upper centres being less involved, the patient ought to be better able to respond to sensorial stimuli and ideas addressed to the upper centres, but it is probable that the usual channels of access to the higher brain are blocked by the intensity of affection of the lower centres, and therefore in this form there is no memory of the past because, practically, there is no true memorial past. So in dreaming there are two kinds to be explained in the same way.

In *folie de doute*—in what is called inability to make up the mind—it is as if the reflex mentalism of which most of the acts are composed (the lower centres) does not involve the conscious memory of the higher centres—the full condition of higher centres does not for the time exist, and therefore powers of attention and control do not exist—hence failure of memory and want of appreciation of what has actually been done. In

full consciousness every detail of thought and action comes into view *and is remembered*, so that it can afterwards be recalled; this involves an appreciable amount of time, during which it may be what is called *accurately perceived*; and if the succession of ideas or presentations is too quick, then neither consciousness nor memory exists. When we see a patient arguing with himself, as when one says, *e.g.*, "What a fool I am to listen to such promptings," it means that what is going on in the lower (impaired) centres is pushing its way into the upper unaffected realms, and is there being duly estimated. When, as in full anæstheticism, the upper cerebrum is rendered quite inactive, no consciousness, and, therefore, no memory results. The first effects of alcoholism are sense of comfort and easiness of ideation and action, with influence from the lower to the upper centres and a perfect memory afterwards. As the higher centres become more and more involved there is complete forgetfulness of acts which are not only the result of action of the lower centres themselves, but are also prompted by the *action downwards of the upper centres themselves*, these latter being uncontrollable because they arise suddenly, and have *scarcely time for true realisation before they act*, therefore they are impulsive, but they do not always pass into action.

In dreaming there is usually disassociation between ideal and motor processes, sometimes the one (ideal) being alone excited, at times the other (motor, somnambulism) process showing alone; so it is in insanity, and it is therefore very hard at times to guess the amount of memory and consciousness remaining, because we do not always know how much the higher centres are involved, since the same clinical appearance is found both in conditions of high-centre excitement or of high-centre paralysis—*e.g.*, a man, apparently demented, not noticing anything, is able to say exactly afterwards how and what he felt; another, to all appearances in the same condition, can tell us nothing, and we ought to be able to explain *why* this difference exists.

Is our explanation all guesswork? To some extent it is. We have to argue from what physiologically *is* to what pathologically *should* be. We want more careful *post-mortem* analysis. Now we read, or are told, that the "upper centres were pink or congested," etc., but no attempt is made to explain whether this was *partial* or what particular tracts were involved, hence

the difficulty of correlating appearances (symptoms) with morbid states. We want more definition, and the magnitude of the difficulties urges us on to more minute inquiry.

Consciousness is for ourselves introspective, but we do many things of which we ourselves are unconscious, though others seeing us would impute consciousness to us. It is certain that there is a kinship in the human mind which enables us to enter into (of course, to a somewhat limited extent) and to appraise the consciousness of others, and this is the basis of our admiration, pity, sympathy, and agreement or disapprobation of the feelings and conduct of others; it is a sign of class-community, and would appear to separate and distinguish us from other groups of creation which show mental or nervous characteristics. So we cannot understand the minds of animals, fishes, etc., because their consciousness seems to be of a different order from ours. We can understand that they experience pleasure and pain, but we have no commensurate estimate of its limits. The consciousness that we have of ourselves in a disordered state, either mental or bodily, is totally different from that of a sound condition, and we experience the greatest difficulty (if even it is possible at all) in recalling when in the one state what we felt in the other.

Hence our reduction to guesswork of what goes on in the inner consciousness of the insane, and even the insane themselves are often little able to help us, except in a blurred and imperfect manner, of what they experienced. They have no memory of it because their consciousness at the time was a different thing altogether; it was a consciousness of a state of material which no longer exists, and therefore can have no consciousness now at all, from which it would appear that insanity is either a mixed or a pure condition—*mixed*, in that with the morbid processes there are demonstrations of the action of unimpaired tissue, and that the consciousness which exists on recovery is that of the sound tissue, which they may be able to recall, and *pure*, in that the whole of the tissue was involved in the disease, and therefore there is not likely to be any distinct consciousness when in health of what it was in disease, *i.e.*, there is no memory of it.

The difficulty which we, as outside judges, have, is to discriminate between the two classes of the internal processes, between that which is the consciousness of impaired and altered

tissue and the involvement of that which is sound, which may be expected to carry its memory and consciousness into the normal life.

According to Edridge-Green, memory is a definite faculty occupying a limited portion of the brain. It has its seat in the basal ganglia, separate from, but associated with, all the other faculties of the mind (*Memory*, p. 3). He says that the optic thalami and the corpora striata are the seats of sensory and motor memory respectively; that all sensory impressions, whether elaborated by the faculties of the mind situate in the cerebral hemisphere or by the sensory nerves, are permanently stored up in the optic thalami and constitute the sensory memory, whilst all voluntary motor impulses, however derived, leave a permanent modification of the corpora striata constituting the motor memory. He says, moreover, that the cerebral hemispheres are the seat of consciousness. It is not quite easy to reconcile the statement that whilst the basal ganglia are the seat of memory the upper centres are the seat of consciousness. Memory would seem to involve consciousness, and in most cases, but perhaps not in all, consciousness involves memory. If on this theory the basal ganglia were destroyed we should have no memory, though we might have consciousness, and the reverse would hold if the upper centres only were affected—we should retain memory, but lose consciousness. Perhaps Dr. Edridge-Green would say that the remaining memory would be merely the unconscious memory of the higher kind of reflex action. He quotes conditions of double-consciousness as illustrating the fact of memory occupying a definite portion of the brain, and he regards them as due to some lesion of the track between the left optic thalamus and the cerebrum. We are as yet without a full comprehension of what memory is, especially of what active memory—the power of recalling—is, and I prefer to believe that the upper centres are specially connected with memory and consciousness, and I point to gross appearances of lesions of the convolutions which one so frequently meets with where sensation, movement, memory and consciousness are impaired, the basal ganglia remaining intact.

There is evidence that both in dream states and in insanity the emotional side of the idea may be wanting, and this must have great effect on both memory and consciousness. In the

former of the two conditions our own experience, confirmed by that of others, is that conditions of danger, or at least of great unpleasantness, may be represented in which, though the situation is recognised, yet no corresponding emotion is felt, as though the idea and the emotion usually associated with it were disrupted, and there is no doubt that the same separation exists very often—not always—in the insane. I have over and over again noticed that people with delusions of a very depressed type do not show the emotional tone which should co-exist with the delusion. Whilst possessed by these cogent delusions they are able to go about ordinary affairs and even to joke and be merry when they ought to be the very reverse, and in the same way we may, I think, be often deceived as to the consciousness of a person in whom certain emotional manifestations are displayed. I have seen a patient moaning and wringing her hands, apparently in the deepest distress, who afterwards declared to me that she had no recollection of being in a painful condition ; and some time ago I saw a lady who acted to all external appearances as if her perception of sensations was as usual and yet in reality her mental condition was a masked one, for she really felt nothing, and in order to test whether her " sensation had gone wrong " she poured a tin of paraffin over herself and set light to it.

We are still in the dark as to the real nature of emotion and feeling, the most recent knowledge being an extension of the part in it played by visceral states. We do know, however, that consciousness is largely bound up with the emotional tone of the idea, and that where this emotional tone is slight or absent the memory of conscious states is very liable to lapse whilst the consciousness itself is most likely to be of indefinite degree. The practical advantage of knowing the degree of consciousness present in insanity is great ; it enables us to appreciate better the responsibility of the patient, and leads us not to commit the error of concluding that because acts which are to all external appearances voluntary and attended with consciousness therefore are so. In states of drunkenness it often happens that the most apparently purposeful acts are committed without there being any remembrance, and it is of little use to speculate upon the hypothesis that even here there was a consciousness of some sort present. Even granting that it was so it

was a consciousness belonging to a *diseased state* quite incompetent to determine the responsibility of a sound mind. Among suicides it is very common to find that the patient had no consciousness at all of the act, though it was apparently conducted in the most deliberate manner and with full knowledge. The same applies to homicidal acts. I have elsewhere shown that in morbid processes the method of action from sensation through emotion and idea to accomplishment is just the same as in sound processes, and it would hence appear that instead of talking about *dual conscience* there are in reality as *many forms of consciousness as there are different mental states.*

When associated ideas are normal, are of sufficient intensity and duration to excite consciousness, and either issue in action or in purposed inaction, they are remembered and we have full cognisance of them; inasmuch, too, as in normal life there is, with the exception of the time spent in sleep, a continuity of mental processes, our consciousness is from day to day *part of a continuous whole*, and therefore the necessity of the conscious states may be expected to last, and it will be vivid according to the intensity of presentation and of attention. When, however, a condition arises in which the processes, though morbid, are of an intense and continued duration, and there is evidence of unimpaired association of idea, the consciousness of the condition may exist in memory for some time, and may be capable of recall as long as the traces of the morbid condition last, until, *i.e.*, the tissue is restored to its normal conditions, when in all probability the consciousness of the morbid state will cease. Dreams are, generally speaking, temporary morbid conditions in which the processes of association are so interfered with, whilst the duration of the state is so very brief, that we can easily account for the forgetting of them; but when, as does happen, they are intense and occur at the waking stage, they become incorporated into the true life of the individual and therefore are better remembered.

If—as does happen—a patient who recovers from a condition of insanity is able to remember, *i.e.*, to recall, some of the particulars which he experienced when insane, he must, of course, be said to have some degree of consciousness of it, but it is as impossible for him to recall the true consciousness and the whole series of processes as it is for the insane person to

remember the true consciousness of his sound mental state, and therefore he is little able when in the one state to be responsible for what he did in the other. The sane man is no more responsible for what he does when insane than is the insane person for what he does when sane.

There are cases of insanity, *e.g.*, in some forms of paranoia, where the process of mental action appears in no way different from that of a sound state—there must be a full consciousness of what is going on, and the resulting actions are of a nature corresponding with what should happen from the nature of the motives—there is, in fact, an *insane responsibility*, but as the social system to which the responsibility would be answerable is an insane system there is no tribunal for it, and it cannot be adjudicated by a sound authority because the mental state cannot be but viewed as something altogether different from that in which the responsibility of the sound mind can be insisted on.

Accounts are apparently authentic where persons in a hypnotised state act just as sound persons do, and yet these people, when out of the hypnotised state, have no memory of the particulars of the condition through which they have passed. We must believe that the hypnotised state has a consciousness of its own, but how distinct must this have been from that of the natural condition! It is sometimes alleged that a person may suddenly develop a condition in which acts of a very complete nature are carried out in a thoroughly methodical manner, and yet the patient, who suddenly returns to his ordinary state, has incomplete knowledge of what he has passed through and of what he did. If such cases exist—I have never seen one, but I can understand the possibility of such a state of things—the condition must be allied to epilepsy, and it is impossible to dogmatise on the condition of the consciousness if even there was any of the most modified form.

My object in these remarks is to emphasise the possibility that we often attribute responsibility where we should at least be very guarded in affirming that it exists. Clinical experience is in direct favour of the assumption that consciousness in disease (mental) is a thing by itself, and that for this reason we cannot use such terms as "limited responsibility," because the responsibilities of health and of disease are very different

things, and what is implied in the one cannot have the same annotation as the other. A man is either responsible or he is not, and we must be very careful in assigning responsibility, because some mental processes work out in a manner closely resembling those which we declare to be the forms of sanity.

(1) A paper read at the Meeting of the South-Eastern Division at Croydon Mental Hospital, April 27th, 1909.

The Urgent Necessity of Helping Mental Convalescents.(1)

By ROBERT JONES, M.D.

FEW subjects of late years have so much engaged public attention as the care and treatment of the mentally infirm, and the pen of almost every writer and critic has been busy over this topic.

Legislative enactments dealing with the feeble-minded, the epileptic, the blind and the dumb, also with medical inspection of school-children, with the adulteration of food, and the control of tuberculosis, together with the reports of various Departmental Committees and of Royal Commissions, including, of course, the voluminous compilation of the Royal Commission upon the Care and Control of the Feeble-minded, an able and authoritative criticism of which appears in the current *Quarterly Review* from the pen of our host to-day. All these indicate the supreme importance of sound mental and physical health in the community, which, indeed, is its greatest asset, health being no longer recognised as the concern of the individual alone, nor of voluntary associations constituted for its preservation, but being definitely recognised as the responsibility of the State, which exists as an organisation for its efficiency and protection.

Our Society, for the help of poor persons who have been discharged recovered from asylums for the insane, is to-day at its annual meeting celebrating its thirtieth birthday, and its active and useful career is fully acknowledged in the public mind as fulfilling a definite practical want in an efficient and (as the late Sir William Broadbent declared) in an economical manner. It is therefore natural and appropriate that it should find itself in the full vigour of its maturity enjoying the sympathetic