CHARACTERISTICS OF INSANITY

A Lecture Delivered to the Students of Tufts College Medical School

BY

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CHARACTERISTICS OF INSANITY.[1]

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THE striking thing you will notice in your intercourse with insane persons is that you can never get on a common footing with them. There is always some intangible, indefinite, indefinable obstacle to mutual comprehension, which prevents the usual good understanding we expect to have with every one. Often there is the greatest willingness on the insane person's part to appreciate what you say, and to co-operate in what you wish him to do; and very often he is himself perfectly satisfied that he is wholly one with you. But all the time you will have the vague consciousness there is a third party to the transaction. You do not alone have his ear — you are addressing him, *plus* some other side of his personality, and he unconsciously is giving a qualified assent to your arguments. Your attitude toward him is somewhat similar to that toward a child, in which case you do not expect to be fully understood, and you intentionally leave a margin in your mind for his inability to grasp what you say. You explain this simply enough by the fact of the child's imperfect development; his mind is not matured. The explanation is in keeping with the nature of things and is sufficient.

With the adult the case is different. He may be intellectually your equal, or superior, yet there is just this degree of what the French call "disharmonie," which parts you mentally, and no explanation can suffice except that you or he are mentally of unsound or disordered mind. In these remarks I am assuming

[1] A lecture delivered to the students of the Tufts College Medical School.

that the person is insane, but to a degree not particularly noticeable, and requiring some skill possibly to find out just what the form of trouble may be. I am assuming also that he is not a person dull and stupid mentally, who would naturally find it hard to make out what you meant, but a person of average intelligence.

I am often struck in my interviews with insane persons with their lack of congenialness. Even without speech, there is a lack of attraction, even a repulsion of a very subtle kind sometimes. You are asked to give nothing; you are not needed, often not wanted in that world, entrance to which is denied you. Even if you may be called on and even prayed for to help, as I sometimes have been, you will still be aware of this negative attraction, which holds you at arm's length.

Alienists very often speak of this *lack of responsiveness* in their patients, and I wish to direct your attention to it, for it is a marked characteristic of the insane. We see people often enough who do not respond to what we may say, or do, but they have their reasons, which will be found, on the whole, consistent under the circumstances. With the insane, on the other hand, it is practically the opposite; their reasons are not, on the whole, consistent.

This brings me to another point, which is, that *we judge the insane very much by what they do;* by their actions, or conduct. You may often find no trace of mental impairment *in words*, when you would clearly do so *in acts*. Do not expect, as many do, that the insane will give utterance to strange, grotesque, fantastic ideas, which will stamp them at once as insane. Many times a very insane man will talk for a considerable period and give no sign of his disease. You may not on the surface get a complete clinical picture, but that is because you cannot see at one glance the whole of the human mind, not that the elements of the disease do not exist. I shall later tell

you of cases of "partial insanity," where the mind *appears* touched only at one point, but that is because it is at that particular point only, at the given time, that the disease has broken through the crust which hides the working of the man's mind, and reveals itself to our gaze, which, in looking into the vast mysteries of human intelligence, is at best dull and stupid.

Observe then the acts of the supposed insane man. See if they are rational acts, in accord with what you would expect a man to do if placed as this man is. Inform yourself most carefully of his habitual methods of action; study into his environment. In well-marked cases the man is so changed that he is entirely unlike himself in what he does; in the more obscure cases it will usually be found that his conduct is inconsistent with what it always has been before, and with what the circumstances naturally demand it should be.

This, then, is the point which I wish to make, to return to more fully, if time allows in subsequent lectures, that a characteristic of mental disease is *inconsistency*. Where before was a man who could be relied on to act in a certain definite way, you now have a man who may, or may not, do what he did before. His present conduct is inconsistent with his past conduct; his opinions, his beliefs, his affections all are tinged with some hidden, new influence, which alters him, and shows how imperceptibly yet radically a man's whole nature may be overturned, and made inconsistent with itself, by the insidious, and often slow, growth of the morbid mental process.

Lack of adaptability is another characteristic. In the social life of the community each individual must to some degree adapt himself to others. To succeed he must have a definite end and aim at which he can only arrive by placing himself at the service of others and resolutely adapting himself to the requirements of the situation in which he is placed, and so through life he is always disciplining himself to meet the

needs of the community, and the better he knows how to do it the more successful he will be. This particular quality is almost wholly wanting in the insane. The more developed the disease, the more the tendency to individualize dominates them. It is well enough for a man who has talent in one direction to individualize, or more correctly specialize, his work; but this means that he is directing his individual efforts to accomplishing something of an objective nature, and he is really adapting himself all the time to his work. The insane man, on the contrary, expects other things to bend to him. He is the centre of things. In as far as the others come to him he may be able to accept what they thrust on him, but he has no power to meet them half-way. All his efforts are for himself; he lives and moves and has his being in a kingdom bounded by the four walls of his own personality.

With this lack of adaptability goes *the lack of power to combine with others.* In rare cases, a few of the criminally insane have been known to combine together to plan an escape, but, as a rule, if you visit the wards of an insane hospital, you will be struck by the separate lives the patients lead. They often work together, walk together and talk together in small, or large numbers, because they are easily trained and disciplined, but each patient in whom the disease is well developed, unless convalescence has set in, is a kingdom and a law to himself. He need not go to any one else for guidance, help or sympathy, because it all comes from within. Not that he consciously says this to himself, or realizes it; it is to the onlooker that it is apparent. It can be easily seen that this lack of power to combine, to enter into mutual arrangements for the common good, is a serious weakness in a community which is ever forming societies, or coteries for such a purpose. It may entirely prevent any success in a business way, or interfere, jeopardize or destroy the harmony of a family circle.

Change in the affections is an almost constant accompaniment of mental disease. I will not say that it is invariable, but it is to be regarded as a characteristic symptom. In conditions of depression, the insane man often thinks that he has ruined his family. Therefore he feels himself unworthy of their love, and for the time being believes he has lost it, and acts accordingly. In conditions of exaltation, there is indifference or positive dislike, or exaggeration of feeling. It depends on the degree of intensity of the disease. Where ideas of persecution are dominant, the affections may be entirely alienated. In conditions of depression it should have been further said that the expression of feeling is in abeyance, even if ideas of wickedness or unworthiness are not dominant in the mind. In mixed forms of mental disease there is every shade in the expression of the affections, but rarely if ever are they wholly normal. There is a lack of reciprocalness of feeling. However much affection may be lavished on the insane man, he fails to appreciate it at its true value, and returns little, or nothing. He cannot be expected to give what is temporarily in abeyance or permanently lost.

Loss of the sense of relation of things is another characteristic of the insane. The ordinary affairs of life, the important questions that may arise from time to time may make little or no impression on their minds ; or if they do make an impression, it is an unnatural or perverted one, and in no way what might be expected. There seems to be no consciousness of what these things mean. In a case of religious delusional melancholia, the patient, a most affectionate and religious man, had lost his wife and daughter within a few days of each other. Though he was devotedly attached to them, and externally apprehended every element of his loss, yet in consequence of his disease he had not a feeling of sorrow, and while detailing to me the circumstances of their deaths, played solitaire unremittingly on the side of his bed! Here was not

only a change in the affections but also an indifference to the proper relation of things.

While so little consequence may be attached to the important matters, *details are exaggerated* to almost any extent. Gestures, motions, words, looks may be freighted with a portentous significance. Articles of clothing, food, bits of paper, etc., all possess a new interest and value. The mind is so occupied with these material details that no time is left for more important ones. The consequence of this preoccupation is a gradual loss of grasp on things as wholes, and they lose their normal appearance of totality and unity. The sense of relation to external objects thus becomes blurred and confused, and no longer possesses its former power of restraining, modifying and controlling the acts of the individual.

With this particular defect goes a *loss of the power of comparison*, a most important attribute of the mind, for when we cannot compare we lose the power of choice, and when that goes we may be morally unable to distinguish right from wrong.

A loss of initiative power naturally is common among the insane. Taking no longer a rational interest in their affairs, unable to adjust or adapt themselves to their work or social obligations, without the stimulus of love and affection for their families, unable to perceive wherein they are deficient because their power of comparison is gone, it is not remarkable that they feel no incentive or call to perform the duties which once seemed a matter of necessity as well as of pleasure.

There are other characteristics of mental disease which will be mentioned frequently in succeeding lectures, two of these being *loss of inhibitory power* or *disordered and weakened will power* and *diminished power of attention*, which I will briefly refer to here as being found in every well-developed case, as necessary elemental symptoms. No man wishes to lose his reason, and while he can consciously control his men-

tal processes he will persistently strive to do so. The man of strong inhibitory force will by will power pass through strains, mental, moral and physical, which wreck the man deficient in such force. From physical causes the strong break down and their natural power of inhibition is weakened; but, other things being equal, the weaker man goes to the wall first. It is, of course, true, that men can be found, in all classes, of weak wills; and it is also true that many of the insane are extremely self-willed without there being perhaps perversion of will-power, or weakness in the ordinary sense. But there is markedly a loss of inhibitory control over the mental processes. The discriminative faculty of will (if we choose to use this expression) which checks aberrant mental action while it gives free play to what is natural, is in abeyance, or slumbers, or is stifled at its post.

Inhibition acts on the cerebral processes (thereby, of course, including both so-called mental and so-called nervous processes, which, as far as we know, are only different phases of one continuous process) somewhat after the manner of the operator in the signal tower of a railroad. Regularly the trains come and go, now on this track, then on that; one may be retarded or another hastened, but always there is regularity and continuity in the movements of the trains. As long as the operator remains at his post, unless some break occurs in the apparatus, no accident can happen, for his hand is on the lever which controls with absolute certainty every operation of every train. But once let him leave his post, and trust the trains to manage for themselves, and confusion and blocking of the whole road will result. Trains will occupy the wrong tracks, some may collide with each other; others may be thrown off the track. Where before we had system and regularity in moving trains, we shall now have fitful, spasmodic attempts to do the same, and before the operator again returns the whole road may be blocked.

So it is with the function of inhibition. When

working normally, every cerebral process flows along smoothly and continuously to a successful and immediate issue. Weakened or suspended, these processes become inchoate, vague, uncertain, paralyzed.

The other characteristic mentioned was the *loss of the power of attention.* We may say that attention means the power to consciously concentrate thought and project it continuously in one direction. Of all mental faculties this must be regarded as the highest. There are many degrees, however, of attention. The child will concentrate his mind on what he is interested in intensely for short periods to the exclusion of other subjects. But this is not wholly conscious thought, but largely instinctive, arising out of sudden overpowering interest and curiosity. To arrive at the point of higher development of attention requires training and self-discipline. The highest attention means that the mind can turn to the objective consideration of subjects. Emerson says that "A man is intellectual in proportion as he can make an object of every sensation, perception and intuition, so long as he has no engagement in any thought or feeling which can hinder him from looking at it as somewhat foreign."[2] In other words, man is intellectual in proportion to the power he possesses of directing his attention objectively to subjects.

Now we usually find intellectual impairment in the insane. Exceptionally there are insane persons in whom there is what seems enhanced intellectual brilliancy; but even in these cases all the elemental qualities of the finest intellect are generally not present and there is apt to be a lack of perfect equilibrium. Granting that there may be exceptions, the rule holds good that intellectual force and power are both weakened in mental diseases. If the man of intellect deals with subjects objectively, the converse is true of the insane man: he deals with objects subjectively. In the first case the man consciously puts his *ego* to one side; in

[2] Natural History of the Intellect, R. W. Emerson, p. 24.

the second case the man unconsciously puts everything but his *ego* to one side. One dominates the *ego;* the other is dominated by the *ego.*

We often speak of an insane man as "concentrating his attention on himself." This is, strictly speaking, an incorrect use of terms. In such a case the faculty of attention is so weakened that it cannot be exercised except negatively. The man's thoughts are concentrated on himself because he cannot make use of the modicum of attention he may have possessed. His mind feeds on itself because it cannot attend to anything else; it cannot "detach" itself.

We now come to more classical characteristics of mental disease — symptoms, I suppose I should call them — which, no doubt, are somewhat familiar to you all. I allude to delusions, hallucinations and illusions. Whenever one of these can be clearly and definitely enough diagnosed, so that there is no question of its existence, there is no reasonable doubt that we are dealing with a case of mental disease. On the other hand, there are many cases of undoubted insanity in which neither can be clearly determined, and some in which neither clearly exist.

Delusion is usually defined primarily as a "false belief," and I advise you to bear these two words in mind for future use, when you may find it difficult to recall quite what a delusion was said to be. It is a false belief contrary to the individual's past experience, inconsistent with his former thoughts and feelings, the result of disordered brain action.

Clouston says: "An insane delusion is a belief in something that would be incredible to sane people of the same class, education or race as the person who expresses it. This resulting from diseased working of the brain convolutions." [3]

Kirchhoff, a German writer, calls delusions "false judgments." "They are due to the uncritical acceptance of the combination of ideas which occupy the

[3] Clinical Lectures on Mental Diseases, T. S. Clouston, M.D., p. 189.

foreground, and this depends on some morbid condition of the brain." [4]

Régis, a French writer, says: "Delusive conceptions are not only difficult to define because they are far from being always absurd in themselves, but also because it is not always easy to distinguish them from error. The difference does not consist, as has been claimed, in that the delusive idea is not changed in spite of the accumulation of the most absolute proofs of its falsity." [5]

Dr. Landon Carter Gray, of this country, states that a delusion is a false belief. Then he says it is sometimes stated that a false belief of the insane differs from a false belief of the sane, because the former is fixed and not amenable to reason; but this is a mistake, because the former is not always fixed and unamenable, while the latter sometimes is. "The only definition of an insane delusion," he says, "is that it is a false belief occurring in an insane person. Whether or not a person is insane is a question of diagnosis." [6]

The view of Dr. Gray, I have never known before adopted, and I must regard it as rather dangerous for a student who is trying to find solid ground to stand upon. Of course, we all must agree that a delusion of the kind we are discussing, which is the delusion of an insane man, must be a false belief occurring in an insane person; that goes without saying, but the last part of Dr. Gray's sentence leads one to infer that it is not a most necessary and often vital factor in diagnosis, which can be made independently. Do not accept that position for a moment, for it is untenable. If there is one diagnostic mark of any disease, it is that of delusion in mental disease. With that well made out, there is some assurance that you are correct, without it there is a very good chance you have not gone to the bottom of the case. Dr. Gray's assertion

[4] Handbook of Insanity, T. Kirchhoff, pp. 72, 73.
[5] Practical Manual of Mental Medicine, E. Régis, p. 64.
[6] Nervous and Mental Diseases, Landon Carter Gray, p. 587.

is like saying: "The only definition of the lesion of diphtheria is that it is the Klebs-Löffler bacillus recurring in a diphtheritic patient, but whether or not a person has diphtheria is a question of diagnosis."

You will observe, in Clouston's definition, that care is taken to make it clear that a delusion is a belief which would be incredible to sane people of the same class, education or race. The reason of this is that sane people often entertain beliefs which are so strange, and erratic and false to the facts of life, that by themselves alone they might seem to be genuine insane delusions. Carefully investigated, however, they are seen to have a consistent connection with the expressed views, or actions, or conduct, or mode of life of those who hold them. Strange superstitions are usually mentioned as instances; also unusual religious views; eccentricities of conduct so unusual as to suggest mental unsoundness.

Insane delusions may grow out of exaggerated, extreme or over-wrought beliefs. Emotional people of sensitive, high-strung nature, liable to go to extremes, or ignorant people, also of the emotional kind and easily influenced, cannot, when sane, be regarded as well-balanced, and, under the strain of the trials of life, or ill-health, can easily pass over the narrow line which separates the sane from the insane. One can often trace the genesis of the delusion, as it is slowly evolved, and see from what it originated, in this particular class of cases, but it is necessary to be careful, and not label a delusion an insane one until fully evolved.

When once delusions are fully formed, they are no longer reasoned and speculated about, as is the case with insistent ideas. They are the very heart and essence of the *ego* itself. They are the new personality, which has taken the place of the old one, whatever that might have been, and it is from this new standpoint that the I, the *ego*, looks out and gazes on the world around him, and judges what shall be his attitude towards it. There is no longer any thought that

he can be in the wrong, or that anything is unnatural about him. However depressed, sad, miserable, or exalted or happy he may be, he now sees things clearly in their true light exactly as they actually are. If any one disagrees with him, or tries to argue him out of his false beliefs, even if such a person is listened to, he is commiserated for his ignorance, shown that he cannot comprehend the true state of affairs, or is regarded as unbalanced himself.

The extraordinary hold that delusions have over the insane is illustrated by the way they treat each other in hospitals. Often they are quick to perceive each other's delusions, and in their mutual treatment are kind and forbearing, fully recognizing how much allowance must be made for people who are controlled by erratic notions and foolish ideas. They even will try to argue each other out of their delusions, and use much tact and skill in doing so. Frequently when I see how completely a person is held in bondage by his false beliefs, yet receptive of certain kinds of impressions; see him eating, dressing, working, amusing himself, precisely as do other people, yet in a world of his own which I cannot reach, I feel as if he were hypnotized; as if only one part of his brain was working, while the other portions slept. And so to some extent he is the victim of auto-suggestions, made so often, that at last they come to have an organized, living character. I am sometimes so much impressed by the patient's being in this hypnotic state, that I search persistently for clues to the suggestions which he has made to himself, to see if I cannot replace them by counter-suggestions to gradually offset them. I am not now speaking of hypnotism, to which I shall refer under the head of therapeutics, but simply of the substitution of suggestions in the mind of the patient.

It may help you, perhaps, to look at an insane person as if he were hypnotized. Think of his having some rather unusual false belief, such as that he is a teapot (Bucknill and Tuke), or made of butter (Régis),

or has glass legs, or a snake in his stomach, or has a sponge in his head instead of a brain (Kirchhoff). Then picture to yourself what a man might say, do, and feel, if he had been hypnotized to believe such things, yet at the same time was obliged to conform to social requirements as far as was possible. It would seem as if the incongruity of the situation must make it impossible to play such a part, but it does not. The hypnotized person, as you all know, will do the most ridiculous things with calm and imperturbable gravity, for the reason that only one portion of his mind is alert and wide awake. The intelligence of the other portion, which under conditions would be active, is "switched off" as James says, and is temporarily dead. The power of comparing, which would at once reveal the absurdity of things, is held in abeyance, for only one portion of the *ego*, that interested in the special suggestion, or set of suggestions, asserts itself above the "threshhold of consciousness." I would not say that the insane person and the hypnotized person are in a similar morbid condition, but there is a rather striking analogy in some ways between them, a knowledge of which will make you feel more familiar with mental disease.

There is danger that students may become impressed too much with the idea that delusions in mental disease stand out definite and clear cut, being limited to one special, specific subject. This is an error, which should be most carefully guarded against. There is hardly any man, however strong he may be mentally, who could keep any idea alone by itself for many minutes in the field of consciousness. By the association of ideas, others of an allied character spring up, and so even in the pursuit of one subject, there is an interchange and interplay of a multitude of ideas, though there is a continuity and system in their sequence. In the insane there is the same method of mental action, less orderly, more perverted, but following the general rule. Now, there may be one central

false belief, as, for instance, in a case of melancholia, the committal of the unpardonable sin. But these words are merely the verbal expression of a tremendous emotional change that has taken place. The patient may have been growing for months depressed. First, it may have been simple morbid conscientiousness; then sorrow for the wrong things he had actually done; then sorrow for his sins of omission; a feeling he was bringing ruin on his family; a consciousness of wickedness; despair at the hopelessness of the future; certainty that he was eternally lost; and, finally, the committal of the unpardonable sin. The patient's mental state cannot be summed up by saying he has this particular delusion, but must include all the elements which combined together display the emotional disorder, as well as the purely psychical. The temperature is pathognomonic of typhoid fever, this particular delusion of melancholia; yet in neither case are we giving more than one factor in the disease.

In mental disease, therefore, you may be sure you will find more than the single delusion, if you happen to have picked that out, as often you cannot. You will find a *delusional state, characteristic of the disease, rather than a single delusion.* The mind will be permeated, and often honeycombed, by ramifications of the false beliefs. Many things, perhaps most things, the patient does will be tinged by the character of his disease where he has a chance to act out his own personality with any freedom. In studying mental disease one is made strikingly aware of how little originality there is among average men. We are creatures of habit, the result of our close family and communal life. Even the insane, who more than any other class throw off the shackles and restraints of social convention, are kept in grooves and ruts, and, as they wear clothes, fit themselves in after a fashion. Their docility and amenability (often they are much more manageable than the sane), give the impression of adaptability, but underneath the surface will be found characteristic

and consistent indications of the mental disease. The threads are all there, out of which we may with patience weave a diagnosis. To do this successfully we must bear in mind two things: (1) not to be disappointed if we do not discover the presence of a single well-defined delusion; (2) not to be surprised if the surface indications of the disease are not very noticeable.

The varieties of delusion are necessarily very numerous, depending both on the form of the disease and the country, race, surroundings and intelligence of the insane person. One writer enumerated fifty-two varities of delusion he had noticed. While the innate character of the false belief may be of the same nature from one period of time to another, the outward way it expresses itself may change. For instance, those who have delusions of persecution often think they are visited in their rooms at night, for the purpose of being injured. Formerly, their rooms were violently broken into, or there was a trap-door in the floor through which the visitor entered. Later, electrical wires were carried to their rooms, and powerful shocks of electricity were administered. At present, they add the telephone to the electric batteries, and often receive threatening and terrible messages from their enemies. Even the phonograph is occasionally brought into requisition.

According to Ball and Ritti, delusions met with in mental disease may be divided into the following:

(1) Delusions of satisfaction, of grandeur, of riches.
(2) Delusions of humility, despair, ruin, culpability.
(3) Delusions of persecution.
(4) Hypochondriacal delusions.
(5) Religious delusions.
(6) Erotic delusions.
(7) Delusions of bodily transformation.[7]

Nearly, if not all these classes of delusions will be mentioned in describing the various forms of mental

[7] Practical Manual of Mental Medicine, E. Régis, p. 61.

disease in subsequent lectures; they need not, therefore, be mentioned in detail here.

The physical evolution of delusions in a subject on which we have little light; but as a prelude to the subject which will next occupy us, namely, hallucinations, Kirchhoff's views are of interest:

"In patients," he says, "belonging to the most different classes, and in all parts of the world, we always find certain definite series of delusions in constant repetition. In many such, series of ideas persist throughout the entire course of the disease; they are called fundamental, or primordial. Like central hallucinations and imperative concepts, they either develop directly in the diseased brain, or are excited by slight external impressions, or by processes within the body. The latter factor requires some explanation. In ordinary health, but more frequently in morbid conditions, irradiated sensations in the body are often associated with irritations in the same, or other nerve tracts. For example, auditory impressions often produce sensations of light, or colors give rise to auditory impressions. In such cases of irradiation it can often be proved that the origins of both nerves lie adjacent to one another. In a similar way the development of certain delusions is connected with sensations located in adjacent parts of the brain. But as the expression in speech of these associated sensations always revolves within very narrow circles, the contents of the associated concepts are also limited by certain individual ideas and words, and these recur constantly in all individuals, after the same internal stimulus. This sheds light on the uniformity of so many delusions in different individuals. They must develop in certain anatomical tracts, and find expression only in generally known terms of speech."[8]

Hallucinations have been defined by Clouston as "false beliefs in sense impressions." Dr. Stearns calls them "false perceptions." Griesinger defines them as "subjective sensorial images, which are, however, projected

[8] Handbook of Insanity, B. T. Kirchhoff, p. 76.

outward, and thereby become apparently objects and realities." Either one of these definitions is, in a way, a good one, and worthy of consideration. That of Clouston is simple, and easily remembered. The only criticism to be made of it is, that it possibly in some cases might be applicable to delusion, as well as hallucination. Of course, a complete definition ought to stand clearly and definitely without qualification for the word or term it is intended to define, and for nothing else. It should not have two meanings.

Another criticism of almost any definition might be that it would make hallucinations appear to be the result of disturbed psychical processes on the one hand, or disturbed sensory ones alone on the other. At present it would appear to be the case that they are of mixed or psycho-sensorial origin, which admits in their production both a sensory and psychic element. Régis thinks there can be "no doubt of the physical element in the genesis of hallucination because of the finding of various lesions in the sensory organs involved, in their nerves, in the thalami, and corpora striata, in sensory centres of the cortex."

Twenty years ago hallucinations used to be defined as "errors of sensation," showing that at that time they were regarded as a physical rather than a psychical lesion. And in observing a patient where the hallucination is well marked the sensory anomaly is what chiefly impresses one, often to a degree to lead one to momentarily overlook the other symptoms of the disease. A patient will state, for instance, as one did say to me, that he hears a voice on the other side of the door, when you are talking with him. He may be saying nothing in any way suggestive of mental disease; you suddenly notice that he begins to listen intently, then directs his attention toward the door, as if he heard something; finally, he walks toward it, and satisfies himself not only that he hears a voice, but that it is, perhaps, the voice of his father.

What impressed me in this case was the perversion

of the sensation of hearing. It seemed as if there must be some lesion in the auditory centre which was at the bottom of the misinterpretation. It was hard to get away from this conclusion. Yet, on reasoning further, you will see that the sound of the voice grew out of nothing external. My voice was not mistaken for the father's (which would have been an illusion); no other sound of any kind was to be heard anywhere, so that there was no chance in that way for a mistake. Where, then, did the voice come from? We must answer, from the patient's own mind; in other words, it was a wholly subjective phenomenon. It was not only a voice, but the voice of a particular person; which further demonstrates the falseness of the perception. In this case, as in most others, it will be found that delusions are woven into the hallucinations, and practically give them their form and coloring — a proof of their pyschical character. The subject of this hallucination had many delusions concerning his father, about whom he was constantly talking, and always wanting to see; it was in keeping with the development of the disease that it should be his voice he heard. He might have heard his father talking from a longer distance, or from some unusual place, like the roof, but he was a quiet-mannered, dignified young man, and it was consistent with his character that he should not shout at his father, but talk to him from a point near by. Often in studying cases of mental disease you may be able to reconstruct the normal personality of patients from what you can see of their tendencies and peculiarities.

Clouston attempts to account for hallucinations in this way: "We may either suppose that, through morbid activity in the nutrition and energizing of the centres of sensation, those molecular changes, which each previous perception had left, are rendered more vivid, and more like the original, as when a photograph by the stereoscope is made to look real and solid; or through failure in the judging and comparing power of

the brain, those faint images which we in health call memories, are actually mistaken for real perceptions of real impressions on the senses, just as when in a dim light, and dreaming humor, the pictures on the wall stand out as real men and women." [9]

"The voices heard are so natural, and the conviction of their existence so irresistible," as Régis says, "that very intelligent patients, physicians, and alienists, themselves will not suffer a doubt, and have recourse in explaining their existence to all kinds of incredible and absurd interpretations; for example, to the intervention of various forces, electricity, acoustic tubes, the phonograph, etc." [10]

There are as many species of hallucinations as there are senses, but there are numerous varieties. The chief kind is that of hearing, or *auditory hallucinations.* These generally take the form of voices talking directly to the patient. Their character depends on the nature of the case. If exaltation is present, they will be cheerful, agreeable, or grand and inspiring voices. They may even come from God, or the Virgin Mary. If depression is present, they will be gloomy, despondent, telling the patient of his wickedness, and commanding him not to eat, or drink. If the case is one of delusions of persecution, the voices will be of a threatening, or denunciatory character, and usually come from the enemy. They warn the patient of intended injury, perhaps of designs to kill him; and command him to kill first, as the only way of saving his life.

Hallucinations of hearing are not often of a pleasant nature, but rather of a painful one. They are particularly characteristic of the cases of persecutory disease, a point to which I wish especially to call your attention, as of medico-legal importance. Homicides committed by insane people are often done under the command of a voice, which is absolutely irresistible.

[9] Clinical Lectures on Mental Diseases, T. S. Clouston, p. 139.
[10] Practical Manual of Mental Medicine, E. Régis, p. 69.

Look most carefully for hallucinations of hearing when you examine an alleged insane murderer. He often will make no reference to any voice, or false hearing, for various reasons, one of which, and the one that concerns us here, being that after he has obeyed the command of the voice, he hears it no more, and naturally, as you will perceive on reflection, for the deed was in the nature of an explosion, and its consummation is followed by a period of relief from the previous mental tension. Nothing is left for the present to be commanded. In trying to get your clue for the auditory hallucination, you may be told no more then: "He had to do it" (the murder) — "He was told to do it" — "It was a put up job" — "He couldn't help it" — "He didn't have anything to do with it." All of these statements carefully analyzed, will turn out to be remote references to the hallucination and should lead to further investigation.

False hearing is not limited to one voice, though as above said, it takes its character largely from the form of disease, and individuality of the patient. I had a patient who heard in the house usually only one voice, but when he walked in the street he heard a great many. All the voices told him what a bad man he was, and purposed to generally expose him. Sometimes the voice is constantly active, keeping up a lively conversation, as in a patient I have, who at the same time carries on a rational conversation with me, and a less rational one with a voice located a little behind her, so that she has to turn her head a little, when trying to catch what it says. The voice generally says very much the same thing, so that she answers it rather mechanically. It tells her that every thing she does is just right, and approves of what she wants to do, which makes her more difficult to manage, as she has many bad habits, which have to be corrected. She sometimes thinks she is to be buried alive, which I think another voice tells her. The first voice, and her own seem to be limited to her own thoughts, one

asking questions, the other answering — hence of psychical origin.

Auditory hallucinations have always been regarded as a very grave and practically hopeless symptom from a prognostic point of view, indicating that the disease has become organic. At present we should say a case in which they were found was serious, but not hopeless. This change in opinion is owing to our better knowledge of mental disease, and the discovery of such hallucinations in curable cases where we had not before noticed them.

Visual hallucinations are much less common than the above. They may occur in company with them or alone, perhaps generally alone. They are, of course, false perceptions of sight. Objects are seen which have only a subjective existence. A patient I had saw men at night who came to his room to carry him off to prison. He had no auditory hallucinations, therefore he explained their making no noise by saying they wore felt slippers. Objects seen may be ordinary persons, or the most exalted personages; or places, terrifying spectacles, pleasing sights. Things of a disagreeable nature are oftenest seen at night, and take the form of robbers, murderers, electrical machinery; in women, men who attempt to outrage them, etc. The prognosis where these hallucinations exist, I regard as serious in proportion to the degree they have become organized, but they do not usually indicate a form of mental disease dangerous to others, and are more curable than auditory hallucinations.

Tactile hallucinations, or false perceptions of touch, are not common. As far as my own observation goes they can be more directly attributed to physical causes than those mentioned above. They are often due to imperfect nutrition of the skin, and consequent irritation of the cutaneous terminal nerve filaments. They are perversions of cutaneous sensation, which are subjectively falsely interpreted. The patients feel things on the hands and skin, which may be skin disease or

insects or filth. Out of these false perceptions (as it appears to me) sometimes grow the delusions of filth and contamination. The prognosis is not very favorable in these cases. They may recover after a time, or get better, but are very obstinate.

Hallucinations of taste and smell are also rare. They are false perceptions of these senses, and also lead one to regard them as arising in large part out of a physical background. In some cases taste and smell or either one, may be altogether abrogated. I remember one such case, a woman who became mildly depressed after the birth of her first child. She had so largely lost her sense of smell that violets and other flowers had no odor at all to her. Her sense of taste was blunted, but not wholly lost. As she began to get better, she gradually recovered both smell and taste. In health there are frequent perversions of these senses, as one easily discovers on making an investigation.

It is quite common for patients to think they have poison in their food. This idea may arise as a delusion in the mind of a diseased victim of persecution. But it may further develop into an hallucination, and the patient will see the arsenic put in his food, or taste it on his tongue as a fine powder. The hallucinations of smell take the form of perceiving horrible odors, such as sulphurated hydrogen, or ammonia, or some deadly and noxious gas. Occasionally, I have known a patient to suddenly turn around, and perhaps hold his nose. Being interrogated as to what was the matter, he has said, "he could not breath there was such a stench." If these hallucinations are not well defined and evanescent they have no serious prognostic import, but where they are very dominant, so that a patient becomes suspicious because of the poison he sees, or is all the time trying to escape from the noxious vapors, the disease has become or is becoming fixed, and the prognosis is therefore unfavorable.

In addition to the specific forms of hallucinations already spoken of there are others of a more general

character, especially those which are referred to the genital organs, which are usually of a painful character, and occur in the persecutory form of mental disease.

In conclusion, brief mention must be made of the third group of what I have called classical characteristics of insanity, namely, illusions. *Illusions are mistaken sense perceptions.* The definition of Régis is: "The false interpretation of a perceived sensation." An hallucination is wholly subjective or invented; an illusion is a distortion, a sense deception. If we refer to the young man already spoken of who heard his father's voice on the other side of the door, you will remember we called his doing so an auditory hallucination because no voice was heard. But if some one proved to him not to be his father had actually spoken, and he had said, that is my father's voice, he would have been the subject of an auditory illusion. He insisted on it that much of the furniture in the room had come from his father's house, and was sure that the stable was his father's stable. These were illusions of sight, which are the most common kind.

Mistakes in identity also come under this head. The same young man recognized several people in the house as persons he had previously known, and even spoke to them and called them by name, yet he had never seen one of them before. Another patient addressed an unknown lady in a familiar way as his wife, and in spite of her protestations was satisfied of her identity. He also thought that he recognized her voice in the room over his head, and was sure when he heard the furniture being moved about, that she was being attacked and maltreated. These were auditory illusions.

Illusions of taste and smell are not uncommon. Salt and sugar are sometimes regarded as arsenic, strychnia and other poisons. Milk has the taste of poison. Egg-nogs are made of rotten eggs. Rare beef looks and tastes like human flesh. Any smell is like putrid flesh, or decaying matter, or sewer-gas.

Illusions of cutaneous sensation are occasionally met with, as in a patient with a dry and badly-nourished skin, who mistook the irritation and itching for insects which were crawling over her.

Illusions occur in both curable and incurable cases, and are not regarded as unfavorable indications in the prognosis. Uncombined with hallucinations, this is true; combined with them, the opposite is the case.