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## THE KATATONIC SYMPTOM-COMPLEX.

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In 1874 Kahlbaum published a monograph on a clinical form of mental disorder to which he gave the name of Katatonia or tension-insanity (*Spannungsirresein*), and which he defined as follows:

"Katatonia is a disease of the brain with cyclically changing course, in which the psychical symptoms take by turns the form of melancholia, mania, stupor, confusion, and finally, dementia, one or more of which psychical composites may be wanting, and in which, along with the psychical symptoms, processes appear in the motor nervous system, as the essential symptom, with the general character of spasm."

These motor symptoms he considers the essential characteristic of the disease, comparing them, in this respect, to the motor phenomena of general paresis, which are considered to establish the identity of that disorder, although associated with very diverse mental symptoms. According to his account, they may assume a very considerable variety of forms. Perhaps the most striking is the so-called "*melancholia attonita*," which is often described as a distinct form of disease, but, according to Kahlbaum, is only an episode in katatonia. Epileptiform and choreiform convulsions are common, especially in the earlier stages. Another of the earlier symptoms is a condition which he characterizes as "*negativism*," of which the vernacular word "*contrariness*" is perhaps, quite as accurately descriptive, consisting in obstinate

Kahlbaum's view of katatonia as a distinct form of disease rests entirely on clinical grounds. He does not claim to have discovered any etiological factor peculiar to it, and, so far as I am aware, the pathological anatomy upon which the symptoms may be supposed to depend is as yet unknown. In such circumstances, three questions naturally suggest themselves: First, whether the symptoms described are uniformly associated; second, whether they are ever absent in cases which there is reason to believe to be of the same nature; third, whether they are ever present in cases which there is reason to believe to be pathologically distinct. The answers to these questions must be furnished by clinical observation, having regard to all the pertinent facts. There is always danger, in making general statements founded on impressions, that they may be unduly influenced by some specially striking cases, while others, equally revelant, may be overlooked.

I have collated all the cases presenting any of the symptoms considered to be characteristic of this disorder, admitted to this institution during the year 1898, and, both in order to save space, and for greater convenience of comparison, I have thought it best to put them in tabular form, giving also, in some detail, histories of a few illustrative cases.

From the foregoing table, the following facts are, it seems to me, evident.

First. Katonic symptoms are no great rarity. The total number of admissions in 1898 was 430. Among these, forty-four, or approximately ten per cent., presented such symptoms.

Second. Symptoms of this class are not usually isolated. Patients presenting one will very generally, if carefully observed, be found, at one time or another in the course of their disease, to show the clinical picture of katatonia in more or less completeness, although few, if any, fill it out entirely.

Third. Symptoms of this class must be held to be of unfavorable prognostic significance. None of the men included in the table have been discharged as recovered, and none of those remaining under treatment are in a condition warranting any such expectation. Of the women, four have been classed as recovered, but it must be considered doubtful whether, in any of these cases, the apparent recovery is anything more than a remission. This

is especially significant in view of the short duration of the disease before admission in a large proportion of the cases. In twenty of the forty-four, it was stated to be not more than a month.

It will further be noticed that the comparative frequency of the individual symptoms varied very considerably in the two sexes. The proportion of cases of stupor and catalepsy is not very different, but verbigeration, or the meaningless repetition of words and phrases, was only noticed in five of the men against twelve of the women. This might be supposed to be due to the greater natural loquacity of the female sex, but the fact that fifteen women and only ten men were obstinately silent at some time during their disease can scarcely be accounted for in this way. Contrariness, or negativism, is noted in ten men and fifteen women. Refusal of food is evidently, in a large proportion of cases, merely a form of contrariness, but it is also, not infrequently, due to apprehension of poisoning. This was observed in all but one of the women, and in only eleven, or little less than one-half, of the men. The tendency to take strange and constrained postures, on the other hand, was both more frequent and more striking in the men than the women. There is a history of convulsions, either occurring here or before admission, in seven men and only two women. Doubtless these last numbers would be enlarged if all the facts could be known, but in most of the other cases their occurrence was explicitly denied.

Of the more strictly mental symptoms of these cases, confusion of mind has not been tabulated, because it was present, at some time, in all the cases without exception. Although the stuporous or lethargic condition is often considered to be a form of melancholia, it is not, in my observation, by any means invariably associated with grief or apprehension. So far as I have been able to ascertain, the emotional state in such conditions is much more commonly apathetic, and evidence of amusement at what is going on is not very uncommon. Distinct evidence of depression was obtained in thirteen men and fourteen women. Excitement, including both elation and outbreaks of rage, was noted in fourteen men and fifteen women.

A good deal of stress has been laid, in some quarters, on religious delusions, especially in the form of communications with

God or angels, and symbolism, or a tendency to attribute a mystical significance to indifferent objects. These were observed in only a small proportion of the cases tabulated, both being more common among women than men.

The following abstracts may serve as illustrations of the course of this class of cases:

Case 1. F. S., a printer; admitted August 30, 1898; aged 28; married. Heredity was assigned, in the commitment papers, as the cause of his insanity, but the queries on this point in the form furnished for the preliminary history were left unanswered. His mother states that he has been of strictly temperate habits. He became insane five years previously to admission and was treated in the Concord, N. H., Asylum, and while there was melancholic and cataleptic. Previously to his treatment there he had convulsions. "Has changed from sleeplessness to a dead sleep for three months, awoke calm, then into a state of mania; was frightened and excited; then from that to talking and singing; for the past year has sung nearly all the time."

Dr. Bancroft, of the New Hampshire Asylum, states that he was admitted to that institution February 14, 1893, with all the characteristic appearances and conduct of a case of acute melancholia. He was discharged on trial, but little changed mentally, on May 23 of the same year, and returned, in the same condition, on the 22d of the following June. "During this second residence at the Asylum he seemed to be affected with stuporous melancholia. He was cataleptic and was fed for several months. He at times would nod assent and say a few words, but most of the time was dull and stupid, and required to be bathed and fed and exercised." He was discharged, not improved, October 13, 1894.

He arrived at this institution in a state of violent excitement, shouting, kicking, jumping into chairs, and laughing without occasion. He persisted for two days in tearing every article of clothing supplied to him. He then passed into an apparently stupid condition, paying no attention to his surroundings, and making no answers to questions. April 25, he showed cataleptic symptoms, and went through stereotyped movements, touching his mouth and chest over and over. He continued stupid for some weeks, allowing saliva to run from his mouth. June 7, he had an outbreak of violent conduct in the dining-room; broke dishes and assaulted other patients.

He remained in a stupid condition, most of the time, until his removal, by the State Board of Lunacy and Charity, August 30, 1898.

Case 2. W. B., a laborer; 55 years of age; native of Nova Scotia; married; was admitted February 22, 1898. He was stated to have been insane for a month, and religious excitement was alleged as the exciting cause, although, judging from his conduct after admission, it is quite probable that it was a symptom of his mental disturbance. He was depressed; would only eat and drink what had been tasted by his wife and

children, fearing poison. Imagined that a young man was in the house for the purpose of abducting his daughter. He said his life-work was done, and he wanted to go away. Although entirely illiterate, he was said to have been a man of more than average natural intelligence and shrewdness.

Physically, he was a well-developed man, without noticeable abnormalities. At the morning visit, the day following his admission, he was found facing a plant-stand, in an attitude of prayer, repeating in a monotonous tone, "Get thee behind me, Satan." On being made to move from the place, he became violently excited, shouted verses of Scripture, and assaulted several patients without provocation. When taken into a room for examination, he kept shouting, "I am He!" at the top of his voice. Said he was God; had come to recall the people of Israel; that the physician was chief of the devils. Finally he became mute; would not protude tongue, or assist in any way about the examination.

For two days he refused to be clothed or to eat. He then became quiet, and showed some appreciation of his condition, although considerably confused. A few days afterwards he announced that bread and water was the staff of life, and for quite a long time would eat nothing else. He walked back and forth on a certain board in the floor, saying that the Lord had told him to do so.

The active manifestations of insanity gradually subsided; he was soon given employment in the congregate dining hall, where he has continued to do efficient service. For some months there has been nothing in his conduct calculated, to the casual observer, to excite suspicion of his sanity. If questioned, however, it is easy to bring out the idea that he has some important religious mission, and that he considers himself immortal. He seems entirely content with his situation, and says he has no wish to leave the hospital, although he has a family in a neighboring town.

Case 3. W. M., male, aged 22, was admitted October 24, 1898. Heredity was alleged as the predisposing cause in the commitment papers, but his mother stated that the only insane relative was an uncle who was "silly" after an injury to his head. He is single, and a high-school graduate. He was considered of ordinary mental capacity, and his habits, so far as known, have been correct. According to his own statement, he has followed various occupations since graduating from the high school in 1895, never remaining more than a few months in a place. Amongst other things, he was employed for a month as an attendant in a private institution for the insane, and his mother thinks he has never been altogether well since. Last winter he began to be low-spirited because he did not succeed in obtaining work; was afraid the boys would call him a loafer. Three weeks before admission he took morphine with suicidal intent; was found on the street by the police and taken to the Boston City Hospital, where he recovered under appropriate treatment. The day before his admission he made a disturbance in church, and was taken to the police station.

On admission, he was found to be a man of medium height, muscular and well-nourished, with no marked physical peculiarities except adherent ear lobules and a high palate. Knee-jerks could not be elicited. He appeared rather theatrical in his manner; rolled his eyes about; made grimaces, and held his hands in constrained positions. Refused to answer questions in regard to hallucinations of hearing, on the ground that the examiner "knew all about it." Was reported to have had a fit, thought to have been hysterical in the morning. When examined before the medical staff, October 27, he stated, in regard to this suicidal attempt, that he bought six one-quarter-grain pills, and thinks he took them all; was sorry afterwards, and took a glass of vinegar as an emetic; also ran his finger down his throat to induce vomiting. States that false hearing is a form of insanity, and that he had false hearing after leaving the asylum where he was employed; imagined that he heard people whispering about him and accusing him of having syphilis. In regard to his conduct in church, he said that he was so moved by the music that he wept, and then whispered loud enough for people about him to hear.

Oct. 27, it is noted that he makes senseless resistance about being dressed and undressed, going to his meals, etc. Frequently makes peculiar passes with his hands.

Oct. 31, he remained in bed all day, refusing to speak, open his eyes, or eat.

Nov. 1, he made his escape by breaking out a window sash. He was quickly overtaken, and made but slight resistance to being brought back.

Of late, he has manifested none of the motor symptoms of katatonia. He appears to have hallucinations of various senses; claims that people crawl up through the floor and get inside of him, to his injury; that he has swords in his head. Is tired of hearing what goes on down stairs, but will not say what it is. Would like to get a revolver to blow his brains out.

Case 4. R. M., a married woman; aged 28; French Canadian by birth, was admitted Nov. 9, 1896. Insane relatives denied. The patient gave birth to her first child September 7, 1896, and seemed slightly confused immediately afterward, but that soon passed away, and she appeared well mentally for some weeks. About November 1 she began to be depressed and confused, and developed hallucinations of hearing of a terrifying nature. She refused to eat, and declared she was going to die; would talk scarcely any English, although able to do so.

On admission, she was a robust appearing woman, without noticeable physical abnormalities. She appeared apprehensive, and would not speak to the physician when examined, but told a patient that the food was poisoned. She refused food for several days, but soon began eating and talking freely. In the latter part of November she claimed that she ought to be allowed to go home, but said she knew she should never go, as she heard people in the next room say she was going to be killed. She improved rapidly from this time, and in the early part of December appeared perfectly well for more than a week, after which she gradually

relapsed into her former condition, refusing to talk, and eating only on persistent urging. In April, 1897, she again began to improve rapidly, and by the end of May showed little evidence of mental disturbance, although she still seemed suspicious.

She was removed, much improved, by her husband, June 3, 1897.

On the 26th of May, 1898, she was re-committed. Her sister stated that she probably had not been entirely well at any time since her discharge. Between two and three months previously to her return she talked strangely, and tried to hire a dance hall. A week before her admission she suddenly became noisy and violent, and since that time had been alternately elated and depressed. She sang, gesticulated, and talked incoherently in French about devils and angels. Evidently had terrifying visual hallucinations.

At the time of her admission she was in good physical condition, but seemed utterly confused mentally, chattering continually in French, and paying no attention to her surroundings. She persistently denuded herself; usually seemed elated, but would occasionally weep for a few moments. Her excitement gradually subsided, with some fluctuations, and in the early part of July she was entirely quiet, but stupid; could not find her seat at the table.

She remained in essentially the same condition, at times showing a little more mental activity, until the early part of December, when she again became excited and confused. She made strange gestures with her hands; tried to walk along a crack in the floor on tiptoe; threw herself suddenly on the floor and jumped up again. In a few days she again became quiet, and said she was dreaming during the time of her excitement. Another similar attack occurred early in January, 1899. From that time she gradually improved and was again removed by her husband, February 22, 1899, apparently entirely clear in mind, although evidently somewhat demented.

Case 5. Sarah R., aged 43; married; was admitted April 17, 1898. Nothing is known of the family history except from her own statements, from which it seems evident that her father was insane. The patient was uncongenially married, and her life had been laborious beyond her strength. At the time of her attack she and her husband were employed together on a farm. For some weeks she had been noticed to be excitable and erratic in her conduct, and the family had been satisfied for several days that her mind was disordered. Two days before her admission she started to go to a neighboring village, with the intention of obtaining separate employment there, but became so much excited on the way that she had to be brought back. She talked excitedly and incoherently on religious subjects; threw money out of the window and directed foolish expenditures, and acted in such a way as to excite suspicion of suicidal intentions.

On admission she was thin and sallow, but presented no evidence of organic disease. She was in a highly excited condition, talking and screaming continually, mainly on religious subjects. When her atten-

tion could be gained, she gave relevant replies to questions. She continued to talk incoherently and to sing for several days.

On May 2 it is noted that for several days she had not talked nor fed herself, and when the attempt was made to have her move, became rigid, though she made no active resistance. She was noticed to be cataleptic on that day.

About a week later she became much clearer in mind, and conducted herself rationally. She professed to have no recollection of her arrival at the hospital, or of the events of the first two or three days following. She accused the physicians who treated her before her admission of causing her derangement by giving her ether; said that one of them was "a wolf in sheep's clothing." A few days afterward she became very mysterious in her manner. She hinted that she was destined for some remarkable mission, and would reveal wonderful things at the proper time; thought that all nations were represented in the ward; that she and one of the physicians were soldiers of the cross.

From this time she gradually improved, and in June, although still, at times, rather mysterious in her manner, she always repudiated her delusions, and seemed ashamed when reminded of them. In October she seemed to be recovered, and was anxious to leave the hospital, but was utterly unwilling to return to her husband, claiming that the trials of her married life had been the cause of her insanity, and that a return to the same surroundings would bring on a relapse. She had, for some time, done very efficient work in the sewing-room, and as at that time a seamstress was wanted, it was decided to employ her in that capacity. She has done her work satisfactorily, but on several occasions has been uneasy, unreasonably suspicious, and has shown in various ways that all was not right with her. On one occasion she said that she felt very much as she did before her breakdown.

Case 6. L. S., a woman; 25 years of age; married, but separated from her husband; was admitted July 25, 1898. Insanity among relatives denied. The patient was healthy as a girl, and was considered unusually intelligent and studious. At the age of 22 she married, to please her father, a man for whom she had no affection, and who proved uncongenial. About a year after her marriage she began to show signs of mental disturbance; accused her mother of taking her strength from her; formed such a dislike for her husband that she would not stay in the room with him; had exaggerated ideas of her ability as a musical composer. Later, she began to fear that people would steal her money.

In 1897, having been deserted by her husband, she came East to be with her mother, but returned to Cleveland twice, seeking reconciliation with her husband. She would often sit for hours staring at some object or with her eyes rolled upward. She would not eat if any one was in the room with her. At one time she imagined that her mother's house was uncleanly, and would not eat there, but ate well at her aunt's. She consulted various physicians, but would not take their prescriptions. She wandered away in the rain, and was committed to the Worcester, Mass.,



Hospital, because she would not stay at home, on the 16th of December, 1897. Two days after her admission there she became resistive and refused food. Soon became very filthy, systematically soiling her clothing and bedding. She would seldom speak; was often cataleptic; would often walk the corridor with erect carriage, mouth tightly closed, arms held stiffly at her sides, and grasping a fold of her dress with both hands. She was removed, May 18, by her mother and aunt, not improved.

She is stated to have improved physically for some time after her removal, but soon became unmanageable at home, and was brought here, as above stated.

Nothing of special importance was noted in her physical condition at the time of her admission, except a very noticeable aortic pulsation in the epigastrium. Her conduct here was much the same as at Worcester. She was cataleptic much of the time; seldom spoke; would stand, holding her skirts up with both hands and staring fixedly. She was obstinately filthy; after being kept upon the stool for a long time, would soil or wet herself immediately on being released. She occasionally wrote letters, of which the following is a sample:

"Mrs. S.

"Beg of you. Permit me to visit you."

"Dr. Sprague—

"Want to go to Cleveland immediately to-day. Give me my clothes and send me to-day. If my father knew my condition he would be angry. Mamma does not realize. Send me to Dr. J. H., 15 Afton Place, or to A. S., West Denison Ave, Cleveland. Keep getting worse. Mrs. S."

She was removed, not improved, by the Board of Lunacy and Charity, September 14, 1898.

Coming, now, to the consideration of the three questions already raised in regard to the specific character of cases presenting katatonic symptoms, in view of this series, I may say, in regard to the first, that, with one exception, to be mentioned hereafter, all the cases tabulated impress me as probably belonging together.

As to the second, my belief is that a considerable number of cases which do not present the muscular symptoms described by Kahlbaum are, nevertheless, substantially of the same nature. To present the clinical evidence for this view would occupy too much space, but I judge that it is becoming the prevalent opinion among the German alienists. At a meeting of the *suedwestlicher psychiatrischer Verein* at Karlsruhe, November 7, 1897, Aschaffenburg, in a paper on the subject, took the ground that *katatonia* was a variety of "*Dementia præcox*"—primary, non-senile dementia—and in the discussion, by Sommer, Bleuler, Kraepelin, Kreuser and Vorster, no one appears to have dissented from this opinion.

With regard to the third point, my observation has led me to believe that this group of symptoms may occur in connection with, and probably as a consequence of, other well-defined morbid conditions, such as, for instance, epilepsy and general paresis. The following cases may serve as illustrations:

Case 7. H. R., a merchant; aged 34; married; was admitted July 7, 1897. A grandmother, uncle and aunt are stated to have been paralytic; no particulars furnished in regard to them. The patient was well educated, having spent two years in college, and overstudy is assigned by his friends as the cause of his insanity. About six months before admission he manifested an unreasonable dislike to his parents. About three weeks before admission he imagined that people intended to poison him; refused food; lay naked on a mattress, refusing to be dressed. At times he would balance himself on his knees, without touching any other part of his body, and remain in that position for a considerable time.

Since his admission he has shown, much of the time, a tendency to peculiar postures and stereotyped actions; sits in a stiff, constrained position; holds his hands extended, with fingers widely separated, for hours; eats his meals lying on the floor. He has been cataleptic at times. In September, 1898, he refused food for several days, and when questioned about it, said he never ate anything; never was in business; never did any work; never saw his father and mother, and did not know whether he ever had any, etc. He frequently repeats some phrase or sentence, often of a profane nature, over and over for a long time, *e. g.* "Danvers damn hospital"; "There's a son of a bitch to hell cleaned out this building."

It will be seen that he manifests the katatonic group of symptoms in rather more than ordinary completeness. Along with them, however, are other symptoms of a different nature. His pupils are unequal and sluggish; his facial muscles tremulous; his knee-jerks exaggerated; his handwriting unsteady, and, although he does not broach the subject himself, it is usually easy, by questioning him, to elicit delusions of wealth and personal importance. In short, there seems to be no reasonable doubt that he is suffering from general paresis.

Case 8. C. C., a woman; aged 29; married, but separated from her husband, was admitted October 13, 1897. Her father is said to have been intemperate, to have had two paralytic strokes, and to have died of epilepsy. The patient had led a dissolute life in regard to sexual relations, and had used alcoholics intemperately. Mental change had been noticed for about a year previously to admission. She had been very changeable in her disposition, had shown kleptomaniac tendencies, threatened the lives of relatives when they opposed her, and attempted suicide by drowning.

On admission she was fairly nourished; the tongue was tremulous, and deviated to the left; pupils were equal, but reacted slightly to light; knee-jerks exaggerated. Mentally, she seemed fairly clear, and gave a coher-

ent account of her life, but a day or two afterwards became very much confused; made absurd and contradictory statements, and was untidy and resistive. For a considerable time her condition varied with a good deal of regularity on alternate days between noisy excitement and stupidity. She showed extravagant delusions of a vague, incoherent character, *e. g.* her father, with whom she claimed to converse frequently, was going to supply her with gold teeth; she had been married many times; was going to marry one of the physicians. The latter was also going to marry two or three of the nurses, and going west to be a cowboy. Her articulation was, at times, a little indistinct; handwriting not markedly impaired.

In January, 1899, she was disposed to refuse food, and was found to have sloughs on the right heel and left instep, evidently caused by mutual pressure. She was put to bed, and has remained there up to the present time. Much of the time she is mute, refuses food, makes passive resistance to whatever is done with her, and is occasionally cataleptic; not infrequently, however, she converses freely, complies readily with whatever is asked of her, and eats heartily. Her sores have healed. For some time she kept her left hand closed, and flexed at the wrist, and for a considerable time seemed unable to extend fully either the fingers or the wrist, but now has fully recovered the use of it.

Although the diagnosis in this case is not, perhaps, entirely beyond question, it seems altogether probable that this, also, is a case of general paresis.

Case 9. C. J.; aged 31; clerk; admitted January 5, 1898. He is stated to have been subject to epilepsy since ten years of age, but first showed symptoms of insanity about June 1, 1897, when he became suspicious, imagining that people were ridiculing him, slandering him and trying to poison him. Thought he was being charged with electricity, and kept his mouth shut for fear electric currents would get in. Was mute for two or three days. At times would stand in peculiar attitudes. Later he became elated; thought he owned the whole world, and had authority over every one.

A few days after his admission he refused food, alleging that it was poisoned. After five days' abstinence he was fed with a tube, making no resistance, and soon began to eat voluntarily. Not long afterwards he was found, one morning, profoundly cataleptic, and remained so for some hours. On another occasion he spent some time in throwing his slipper into the air with his toe, and trying to catch it. At one time he sat with his trousers rolled above his knees. None of the motor symptoms of katatonia have been noticed for several months past. He had delusions of personal importance, with a religious tone. Some time ago he announced that a flood was coming on January 8th, and that the hospital building was the ark. After the date fixed had passed, he explained that such had been the intention of the Almighty, but that he had changed his mind. His convulsions occur, on the average, about once a month.

I recall two other epileptic patients who were in the habit of assuming characteristic katatonic attitudes.

The three cases last described seem to show either that two distinct diseases, affecting mental activity, may co-exist, or that epilepsy and general paresis may give rise to katatonic symptoms. Although the possibility of the former supposition cannot be denied, it seems hardly probable that two such diseases should coincide in the time of their outbreak, as seems to have been the case with the two sets of symptoms in one, at least, of the patients.

It seems to me justifiable to conclude, provisionally, that the katatonic symptom-complex may occur in a variety of morbid conditions, although it is by far most common in the class of cases to which Kraepelin has applied the term "*Dementia præcox*." In their bearing on prognosis, such symptoms must be considered at least relatively unfavorable, although long-continued remissions certainly occur, and it hardly seems justifiable, at present, to deny the possibility of complete and permanent recovery. It is quite possible that cases of recovery may, in reality, be pathologically distinct from others that resemble them in their symptoms.

With regard to etiology, the rather common occurrence of sudden remissions seems to me unlike what might be expected if the symptoms were due to auto-intoxication, which Kraepelin is disposed to assume as the cause of the symptoms. The striking resemblance of many of the more prominent symptoms of this condition—catalepsy, stupor, mental bewilderment, illusions and hallucinations—to phenomena that can be artificially induced in the hypnotic state seems to me suggestive of the possibility that they may have something in common in their causation.

Whatever may be thought of the propriety of classifying cases presenting these symptoms separately from others with a like tendency to dementia, it seems to me entirely unsatisfactory to class them with cases of acute mania and melancholia because they happen, on the day of admission, to be elated or depressed. As a practical matter, the recognition of the motor disturbances here considered warrants a different prognosis, both as to the course of the disease and its ultimate outcome, from that of

either mania or melancholia properly so-called. In diseases of which, at present, we know neither the cause nor the cure, it is a satisfaction to be able to foresee their course and termination, and a proper classification is a necessary prerequisite to any fruitful study of pathology.