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THE NEUROLOGIC DILEMMA*

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The opening chapter of William James' "Pragmatism" is called "The Present Dilemma in Philosophy." In place of philosophy read neurology, and the title of this president's address is revealed. The minor differences between James' chapter and mine will be found in the fact that I propose to devote just twenty minutes to the presentation of the dilemma in neurology. The major difference I shall refrain from mentioning, because I want to feel for a few moments, at least, worthy of the honor you have conferred on me.

It is far from my purpose to suggest a pragmatic solution, however, but rather do I want to certify to the existence of a dilemma and then to ask you to note that its partial solution can be found in the present program which my paper so feebly initiates.

Dilemmas exist only when attention is directed to them or when something happens which disturbs the orderly working of events and an effort is made to understand why things are not as they once were. I began to be dimly aware that there was something the matter with neurology when it was brought to my notice that in the neuropsychiatric service of the American Expeditionary Forces there were only a few neurologists, and that about 90 per cent. of the service was made up of asylum or institutional men. The war neuroses were essentially problems of neurology, and neurologists as a whole had very little to do with the attempt at solution. Whatever the explanation turned out to be is now of little importance, but this extraordinary lack of neurologic participation in one of the most significant neurologic opportunities of this generation led irresistibly to the conclusion that there were counteracting and antagonistic tendencies in neurology. It is out of these that the dilemma I am now going to talk about originates. It is my purpose then to touch briefly on the present state of neurology, to indicate what neurology seems to me to be, and to dissolve the dilemma by stating the things that make it up. As this address is not to be open to discussion, now at any rate, I shall find it comparatively

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easy to state such thoughts on the subject as I happen to have with a degree of boldness and definiteness not usually characteristic of presidents' addresses in our time and in our country.

A BROADER CONCEPTION OF NEUROLOGY

Neurology just now presents a most curious and interesting anomaly, owing to the fact that the personal and clinical treasures of the neurologist are really no longer his. He is permitted to have only a far distant and often impersonal interest in them. One by one the old and classic standbys, the dead ends and fruitless scars of ancient processes are dealt with by those to whom a neurologic training and type of thought have been denied. Syphilis of the nervous system, tabetic and parietic reactions are all now well within the territory preempted by surgeons, dermatologists and internists. They make the diagnosis, plan and carry out treatment, often with skill and intelligence it must be admitted, without the least idea that they are treading upon ground discovered and cultivated by a preceding generation of intrepid neurologic thinkers. I mention this merely to indicate the steadily narrowing fields of activity left to those whose neurologic horizon is limited by the traditions of the past; traditions which are crumbling under the attacks of our more venturesome colleagues. I shall leave to your imagination the rest of this story. Rare spinal cord lesions, the curious and unusual types of disease, familial deviations, congenital anomalies upon whose unending diagnostic and therapeutic difficulties the neurologic intelligence wages a hopeless struggle, are the residuals left after the piratical sifting is finished. These may well be called dead ends in contrast to the live and vivid realities which a broad conception of neurology should encourage us to put our teeth into. I am leading perhaps somewhat deviously to the first point which I want to make, and that is that neurology must be redefined and we must be courageous enough to follow where this redefinition leads. Neurology is concerned with the totality of the problems presented by the nervous system in health or disease and any condition influenced by its disturbed function. Consciousness is perhaps the chiefest of these functions, and to its expression, whether normal or abnormal in the accepted meaning of that term, neurology and neurologists must be actively concerned. This points directly to that group of defects which neurologists have hitherto been only half-heartedly interested in—the psychoses. I am not referring to the legal and custodial phases, but to the direct participation in the study, care of, and direction of the insanities as they are met with in the daily experience of all of us. I desire to accentuate the conclusion that there is no psychiatric point of view, that there is no such thing as a psychiatric method of thinking or approach which logically can be divorced from the neurologic one.

It is the latter that contain the vital elements of scientific advancement. When the problems of consciousness are neurologically approached then progress will begin.

THE NEUROLOGIC POINT OF VIEW

What is meant, then, by the neurologic point of view? It is briefly this: What knowledge there is of disease of the peripheral nerve, spinal cord, and brain based on lesional defects was arrived at through anatomic and physiologic methods of thinking applied to conditions found in the nervous system. A mass of definite, tangible, and illuminating information was acquired, which, crystallized by observation, experience and thought, furnished the data of neurology. This attracted the attention and awakened the interest of neurologists from the period of S. Weir Mitchell and Charcot, roughly speaking, to the time of the war. The methods that grew out of their activity and out of the work of many other men of their stamp stood the critical test and were productive in establishing what is now in many respects a well correlated and reasonably well known field of knowledge. Such methods should be followed, modified in ways that can only now be surmised, when the problems are less tangible, less material, and, unfortunately, more complex.

The abnormalities of consciousness, expressed clinically in psychoses, become the objectives of neurologic endeavor as the logical development of the neurologic method reaches out to its ultimate possibilities. I am of course speaking of methods of thought, not technic of examination. The certainty of these conclusions appears to rest upon the fact that there is no fundamental difference in intellectual processes which can be said to be dependent on differences which are innate in the object of inquiry. The human mind in its function of thinking is not modified and does not undergo a change because the subject under scrutiny possesses one quality or another. The assumption that this is necessary causes the dilemma which has so long kept the neurologic method focused so largely upon purely anatomic problems. There is no fundamental difference in scientific method in the attempt to work out the factors that go to the making of a diagnosis of tabes, for example, and that which is concerned in manic depressive psychosis, dementia praecox, or a neurosis. If the method differs, and when it departs from the physiologic, anatomic, or chemical type of reasoning, then there is a defect in the thought process, and defective diagnostic and other conclusions are the result.

SENSORY DATA

In using the terms physiologic, anatomic, and chemical, I should like to include also such psychologic methods as are based on sensory

data. This, however, by no means necessitates limiting in any way the sources out of which the essential data comes; but it is necessary, I think, to measure and weigh such data by the critical and objective qualities of neurologic thought, in opposition to the mystic or introspective methods which are deemed so essential when neurology is thought of as a domain limited and bounded by the peripheral nervous system on the one hand and tumors of the brain on the other. I fancy that the neurologist's objection to a great deal of the freudian conception of the neuroses is not due to the conclusion arrived at but to the loose methods of thinking indulged in. The assumption that a thing is correct because the expected is proved is much less convincing neurologically than if the unexpected sometimes happens. The sexual etiology of the neuroses does not strike terror to the neurologic heart, but it is the prophecy and expectation that nothing else can be the explanation that is annoying and irritating.

There is here detected a faulty method of thinking which arises on account of the insistent and initiatively controlled trend which is wholly at variance with the free play of the trained intelligence upon a difficult and intricate problem. Psychoanalysis as a method of investigation is possibly adequate, but it ceases to be so the minute it departs, in any important way, from the influence exerted by the deductive procedure developed in the building up of a neurologic method. In the investigation of the neuroses the same method of inquiry must be followed. These phenomena of an altered function of the nervous system are capable of investigation by the same methods of thought that are used when the object of inquiry happens to be a localized lesion of the spinal cord. The control exercised by the postmortem study is unfortunately lacking in the former of these, but in the clinical problem no difference in the method of approach is necessary. Causation, mechanism, and clinical end results are there just the same, even if the final test of the microscope is at present lacking. After all, the method is the main concern, and the scrutiny of final conclusions is to be governed accordingly. In the physiology of the nervous system is to be found the key to the neuroses, and from it will eventually arise the laws governing the grouping, distribution, and quality of the sensory objectivation of hysteria, just as definitely set as those produced by a tabetic lesion of the posterior root and column.

Please do not think I am advocating a physiologic parallelism. I have no definite ideas on this subject whatsoever. I am merely calling attention to methods of thought and ways of thinking.

It is obvious, therefore, that the field of neurology must of necessity embrace that aspect of deviation of the nervous system produced by anatomically demonstrated changes in its structure, that disturbance

in its correct function that is called a neurosis, and that failure in adaptation which is termed a psychosis. This, I believe, is the field of neurology. This wide embrace is necessitated by the fact that there is no definite dividing line between them, and that the best and most fruitful method of approach is that which has had the best success in the understanding of the more obvious and more tangible problems, those that belong to the anatomic group.

THE NEUROLOGIC DILEMMA

I have tried to lay bare the elements out of which the dilemma in neurology has arisen. The dilemma, then, is this: The neurologist is caught in the meshes of contradictory tendencies in the subject by which its limits in one direction are steadily receding and those in another are extending beyond his visible horizon. He lacks the courage to wander into territory preempted by what appears to be a defective method because he lacks the conviction and faith in the correct method. He is too readily impressed by the conventional and traditional belief that some mysterious quality of mind is needed in order to venture into a land which by virtue of his training and experience he is best fitted to explore. I am convinced that the psychiatric phase of neurology, if such a paradoxical expression be permitted, is a definite part of any neurologist's activity and that the old separation of the subject should be given up. This does not by any means imply that there need be any limitations of specialists' activities in any direction. The neurologist may well choose one or another field or one or another group in which he is particularly interested. The whole, however, should be neurologically directed and infiltrated by the best neurologic thought. The solution of this dilemma must come about by keeping in mind very steadily this fact: neurology suffers when it separates itself too far from the problems of medicine as a whole. Psychiatry has, I believe, been artificially separated therefrom, and by its separation and segregation progress has been made unusually and uselessly difficult. The closer both get to the problems of medicine, the greater the advance will be, and if both do this they will automatically merge into the common subject to which they belong, which is disease of the nervous system. The place for neurology in the conception that I have in mind is a general hospital, where it should find its physical home. From this its material comes, and out of this combination its progress will develop. In a practical way, therefore, the university neurologic clinic will arise, as it is beginning to show itself in a few places scattered throughout this country. The totality of the problems of the nervous system will become, then, the object of inquiry, and the subject of this inquiry will be found in the persons whose nervous systems are diseased.

If it once becomes possible to view the nervous system as a whole, not only in its normal condition, but also when it becomes the subject of disturbing factors which produce what is called disease, the dilemma that confronts the neurologist will surely disappear, because it is the lack of a convincing method of approach that gives the dilemma its vitality, not the innate difficulties of the position itself. The impasse of a dilemma is usually brought about by the contradiction of tendencies, a pull in diverse directions. A stabilizing of effort or a neutralization of energy results, and the thing that can be solved remains unsolved. In an attempt to rationalize this lack of progress the difficulties are assigned to a place where they do not belong, and a terminological defense system arises, which perversely enough becomes the dilemma itself. Against the false screen the efforts at solution are directed, and no wonder they so often fail. It is a fortunate thing that neurology has been able to build up for itself a scientific method that has all the characteristics of workability and adaptation.

Contrasted to this is a method of thought that derives from a prescientific era, in which what was inside of one's mind rather than the data outside was made use of. I make use of this rather crude comparison to point out the striking contrast between what I conceive to be the opposing thought tendencies in the two branches of nervous diseases to which the horns of our dilemma are directed. That this divergence of thinking exists can be easily proved by noting the mental behavior of a medical student in the presence of a case of *tuberculosis* and a case of *dementia praecox*. The ease with which the former is examined and the awkwardness and embarrassment in the presence of the latter are striking indications of what I mean. As soon as a case of paresis is presented to him and it is indicated that the process here is identical with that of *tuberculosis*, the contrast of thinking almost immediately disappears. The inclination to cling to the objectivation of symptoms and to feel a certain sense of comfort in the thing seen or felt is an almost pathetic reminder of the artificially produced breakdown of the neurologic method of thinking in the face of symptoms arising from disturbed mental functions. This is where I have tried to put my finger on the sore place out of which the dilemma arises.

THE TECHNIC OF MENTAL TESTS

It is the unwarranted assumption that a different kind of thinking is necessary in the one problem and its sudden realization that produces a blocking of smooth effort in the observation and noting of data and the necessary conclusion from them. The technic of a student in a case of *dementia praecox* in its neurologic, medical, and psychical phases is an interesting commentary on the clash of methods. The contrast

to my mind should not exist at all. The use of material methods of observation as contrasted with those to which the term psychic is given is certainly striking. When the physical, neurologic, and chemical tests are over the examiner pauses as though to say, "Now I am going to examine this patient's brain or mind." Immediately there is a change in his attitude, a change which I believe is detrimental to such knowledge as he is able to obtain. What I am particularly interested in noting, however, is that with this change of attitude really goes no important fundamental change in method, because when it comes to the point of making a mental test or mental investigation or mental analysis, use is made and can only be made of the same channels of study that were used in the examining of the reflexes, or sensory tests, or what not.

After all is swept aside and all the hypertechnical phrases are done away with, there remains the method of question and answer. The instruments by which this is accomplished is by speech and by hearing. Everything else is adventitious, and what goes on in the patient's mind and comes into the examiner's mind does so through the sensory channel alone. It is the receptivity of one mind in the face of the attempted expression of the content in another's that satisfies all of the legitimate demands of the examination into the psychic field. Technic consists, if there is any such thing as technic in this sense, in the use of analysis, judgment, memory, the weighing of evidence, the use of past experience, the use of observation of facial expression, the reaction quality of emotion, etc., and if one examines this mass of data and the other mass of data he is not aware that there is any distinction of any importance whatsoever. The dilemma here consists in not admitting frankly and honestly that the difference in method is merely a difference in terminology; and, if it were not for the fact that terminological emphasis is placed on one method to the exclusion of the other, the neurologist's thought processes in one would be exactly the same as in the other. It is when the neurologist is influenced by the dilemma that arises in such an instance that the method itself begins to suffer, and unconsciously there is substituted something which is called psychiatric, and with which he feels unfamiliar because he instinctively knows that it is wrong. What I mean to imply is simply this: So far as psychiatric method is effective and productive it shares with neurologic methods a correct system of thought; when it departs it is manifestly defective. The dilemma here arises out of the impulse to dodge the hard issues of the neurologic pathway and to follow that part of the psychiatric method which falsely promises a way out. The curious thing is that it is this false element to which the term psychiatric is found most often applied.

CONCLUSION

The dilemma as it shows itself to me is made up, as most dilemmas are, of a series of false ideas, of illusionary elements, magnified into a semblance of reality by a terminology that finds a certain amount of attractiveness in its tautological nuances. Its chief incentive toward escape is based upon the false notion that because a thing is expected, all things are wrong that do not lead to that expectation.

The dilemma in neurology disappears as soon as it is faced or as soon as it is understood. The way out lies in the utilization of neurologic methods of thinking. The neurologist's opportunity is the nervous system, and no problem there is less than his right of possession nor more than his capacity, modestly and courageously tempered, may not hope to solve. Thus the dilemma vanishes and if, in attempting to dissolve it, I have not been able to state my thoughts with the grace and felicity of the great philosopher whose title I have dared to borrow, yet I hope I have been touched a little by his honesty of purpose and his supreme intellectual courage.

Humboldt Building.