THE BIOLOGICAL POINT OF VIEW OF ADOLF MEYER IN PSYCHOLOGY AND PSYCHIATRY

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THE BIOLOGICAL POINT OF VIEW OF ADOLF MEYER IN PSYCHOLOGY AND PSYCHIATRY[1]

By HENRI FLOURNOY.

The function of the different parts of an organism and the reciprocal action of these parts upon each other constitute one of the most important fields of study in medicine. But a living being cannot be separated from the world in which it lives and with regard to which it forms a whole. What is the behaviour of this whole in its natural centre, and how is this unit affected by its surroundings composed by other units? These questions are just as important as those concerning the part played by any one of the various organs within the body. Medicine cannot disregard them.

Literally, *psychiatry* means the medical treatment of the soul. What are we to understand by this? According to certain conceptions of the past, prevalent in the Middle Ages, the soul was to be looked upon as an entity with a nature of its own, to be considered independently of the body. The advent of science altered the problem. The scientist, in view of liberating his research from all superstition, chose to give the soul an humbler place than that which had been assigned to it, and in so doing he went so far that soon his aim appeared to be the explanation of all things by the exclusive knowledge of the properties of the body without even considering its functions. The time came when psychology could be conceived of as bereft not only of the antiquated notion of the soul, but of all the phenomena of consciousness as well. Dissections, post-mortem examinations, the analysis of chemical reactions, the study of reflexes in animal preparations became the chosen lines along which science might safely progress indefinitely.

But as a matter of fact the human organism is nowhere to be found isolated. It is always a part of a world, the world in which it lives. Its study cannot be limited to an analysis of its constitutive elements from the view-point of structure, of individual or associated activities. The proper aim should be to examine groups of facts in their broader aspect

[1] This paper, translated from the French, is the first chapter of a study devoted to Adolf Meyer—the eminent Professor of the Johns Hopkins University, whose teaching is of such far-reaching importance to modern psychiatry. The complete study will appear in the *Archives de Psychologie* under the title of: "L'enseignement psychiatrique d'Adolf Meyer."

and to see how such organisms, considered now as integral units, behave with regard to the units of their environment. Now psychology is precisely the science whose duty it is to study the working of this aggregate whole, whilst the branch of medicine which we call psychiatry is concerned with its disorders and the means of remedying them. Psychology and psychiatry are thus closely linked together and can scarcely do without each other. As to psychopathology, it is merely the scientific definition of psychiatry.

In other words psychology is properly the science of *behaviour*, and thanks to this view-point all accusations of metaphysical speculation and subjectivism directed against the study of the soul have lost their plausibility and must be dropped. The behaviour of the individual is susceptible of objective investigation to the same extent as the function of any particular organ or system of organs. By adhering to this modern conception, Meyer escapes the danger of falling into either of the two extreme attitudes which he has frequently called attention to. On the one hand, certain investigators have been lured by the dogma according to which the mind might be studied in itself by the means of introspection alone, as though we were dealing here with something totally different from the other facts of nature. On the other hand, medical men have sometimes made it a point to exclude, as superfluous, all that traditional psychology had accumulated, or to convert it into terms of brain-physiology. In that connection Meyer recalls the story of the director of an asylum who prided himself upon having been able to eliminate from his statistics the "mental and moral causes," satisfying thus his prejudices according to which the "mind cannot become diseased, but only the body[1]."

Nowadays *mental and moral causes* are admitted, but in a juster sense. We are not dealing with ideas or sentiments acting by reason of some abstract mechanism, but indeed with real factors due to the concrete conditions in which the individual happens to be situated. And when the adjective "psycho-genetic" is used it applies to the reactions of the complete personality with regard to his or her surroundings. In medicine one thing must be borne in mind, and that is that a human being is above all a social creature. Hence the necessity, after a proper examination of the bodily condition of a given patient, of an inquiry into the problems of his life expressed in the form of activities and human relations. In studying the history of any person whatever, his

[1] Ad. Meyer. "The contributions of psychiatry to the understanding of life problems," *Bloomingdale Hospital Centenary*, New York, 1921, p. 10.

biography as it were, one comes upon events and their particular effect upon him, real facts in a word, which no analysis of toxines, researches into sources of infection, and no cerebral hypotheses could possibly bring to light. So considered, mental causes may assuredly be said to exist. This has always been the view-point of common-sense, which neither psychology nor psychiatry can afford to dispense with—but which they rather confirm, just inasmuch as they make the complete personality and its social behaviour the principal object of their study.

This science of behaviour is *dynamic*; instead of concentrating on the abstract phenomena of consciousness, or mental conditions considered in themselves, it deals above all with mental *reactions*, with the *activities* of the individual. Its aim is not to solve theoretic problems, but to throw some light upon the concrete situations in the life of some given individual, to discover how they affect him; in a word it is concerned with *vital* problems. That is why psychology and psychiatry, understood in this way, deserve to be termed 'biological.' What is their relation to the other sciences of life?

Here Meyer establishes a sort of *hierarchy* of the facts of nature. All may be reduced to comparatively simple 'elements' and in that case pertain to physics and chemistry. But the reduction to these two sciences eliminates the all-important fact of a very complex integration which is the characteristic of living beings[1]. In chemistry, for instance, the properties of a body as clearly determined as water require to be studied in themselves, independently of the oxygen and hydrogen which are its component parts. Now then, the combination of elements, their reciprocal integration may reach such a degree of complexity and unity that they realise what we call *biological units*. That vast group characterised by the comprehensive mass of vital phenomena (metabolism, growth, reproduction) includes types that are purely vegetative and others gifted, thanks to a certain amount of mobility, with a life of relation and real behaviour. The individuals of this latter type develop a nervous system with a complete organisation of reflex processes. Here, moreover, some new differentiation may occur, consisting of an activity qualified 'conscious.' This brings us up to the highest degree of complexity: the *psycho-biological level*[2].

[1] We should distinguish between *integration* and mere *summation*. Summation leaves the ingredients unaltered. Integration consists in the formation of new units which have to be studied as such, and the nature and behaviour of which cannot safely be deduced from the qualities of the ingredients.

[2] Ad. Meyer. "Inter-relations of the domain of neuro-psychiatry." *Archives of Neurology and Psychiatry*, 1922, VIII, 113.

To obtain the scientific comprehension of a unit as highly evolved as a human being, it does not suffice to sum up all that one knows concerning each one of the systems of which it is composed; its total reactions must be explored in themselves; they determine the attitude of the individual with regard to his surroundings, to the medium in which he is situated. And it is certainly in psychological terms that science can best and most intelligibly give an account of it. But according to Meyer—and we must insist upon this point—psychology has not to consider so-called isolated facts of consciousness, these acquiring their significance and their value just in proportion to the part they play in the associative system that constitutes an individual. How can one define the part played by the facts of consciousness? What is their biological importance?

To answer this question Meyer resorts to the notion of *symbolisation*[1]. Activities known as mental are made manifest by means of signs or symbols, which represent (in the form of perceptions, memories, ideas, images, projects, etc.) certain facts, thus permitting of conduct better adjusted to circumstances and nearer perfection than that depending upon simple reflex action. Able to utilise by means of symbols the data of the past as well as those of the present, to project his aims and aspirations into the future, to place fancy and reality on the same plane, the creature endowed with 'conscious' life has thus at his disposal a marvellous tool for adaptation and economy, a tool affording him the same facilities that the symbols of algebra and logarithms give the mathematician, at the same time constantly disclosing new possibilities to him.

It is apparent that this point of view with regard to the phenomena of consciousness is above all *functional*. Mental life cannot be conceived of independently of the organism in the existence of which it exercises a *vital function*, useful and necessary. That is why Meyer prefers to substitute for the short and simple term of psychology, that of psychobiology. He also objects to the tendency to accentuate in the name of a misunderstood conception of the principle of parallelism, the idea of an absolute rift between two series of facts, the physical and the mental; which tendency has in turn given rise to another, quite as detrimental to science, and which consists in an effort to place all facts exclusively in one of these two arbitrarily created series, thus falling into a sort of monism, idealistic or materialistic, which no longer corresponds to the complexity of the phenomena observed. When it comes to reactions

[1] Ad. Meyer. "Misconceptions at the bottom of 'hopelessness of all psychology,'" *Psychological Bulletin*, 1907, IV, 178. And: "Inter-relations...." *Loc. cit.* p. 115.

of a psycho-biological level there is no advantage in reducing them to a one-sided and simplifying formula. In nature these reactions are completely integrated, although the theories concerning the organic basis or the histological conditions of the facts of consciousness are absolutely inadequate[1].

Giving up the traditional idea of the contrast between the physical and the mental, Meyer simply recognises *modes of reaction*. Here too a sort of hierarchy may be established, for these reactions may occur on one of the three levels of complexity denominated vegetative, reflex or psycho-biological, according as they imply the action of visceral organs, of the nervous system or of the complete personality forming a whole. Other American psychiatrists, like Campbell and Kirby, adopt the same point of view, well summed up in this sentence from the *Text-book of Neurology and Psychiatry* of Jelliffe and White, quoted by Meyer: "The *hormone* is the type of tool at the physico-chemical level, the *reflex* at the sensori-motor level, and finally the *symbol* at the psychic level[2]." The aim and object of psychiatry being the study of the disorders in the behaviour of the individual—the defective reactions which occur, according to the accepted term, at his level of superior complexity or of total integration—it follows that psychiatry is above all based upon psychology and cannot do without it[3].

The medical psychology extolled by Meyer and indispensable to psychiatry differs somewhat from the old classical psychology. It is not based upon philosophical considerations and is not limited to a merely descriptive study of the states of consciousness or of the "faculties of the soul" arbitrarily isolated. Neither is it confined to ingenious laboratory problems to be solved by means of some instrument of precision. Every bit of this is necessary but insufficient; for mental life, inasmuch as it is an object of investigation, must not be deprived of its functional character. Its manifestations always take the form of *activities*, of *behaviours*, of more or less complex *reactions*, which have a biological importance and which cannot be well understood outside of the natural setting in which they occur. These reactions, shaped by previous events and by surroundings, in turn give a particular bent to the ulterior course of the individual's existence. That is why any

[1] Ad. Meyer. "Misconceptions...." *Loc. cit.* p. 179.

[2] Ad. Meyer. "Inter-relations...." *Loc. cit.* p. 115.

[3] The position of Meyer is best illustrated by the fact that he devotes his course of introduction to psycho-biology to the practical work of a personality study, the student working out a study of himself and of the three most contrasting fellow-students. In other words, Meyer proposes to study objective facts and the dynamics of the individual make-up.

methodical investigation in this connection must accumulate real facts, find out all about the particular circumstances in the midst of which the subject happened to be, analyse the influences he was subjected to from childhood and which may have fashioned his way of responding, give an exact account of the manner in which he met the obstacles with which he had to cope. This represents a succession of events which must be reconstituted in their concrete reality in order to discover the resources and the weaknesses of the said individual and be prepared to correct, as far as it is possible to do so, his faulty adaptations.

This conception leaves very little room for a belief in 'constitutional fatality.' By recognising the importance of *psychological causes* as defined above, this conception approaches that accepted by current opinion. It implies moreover possibilities of modification which would often be excluded *a priori* in the name of the dogma of innate constitution. "It must be borne in mind," says Meyer, "that psycho-pathology is beginning to assign a definite rôle, not only to the growth, nutrition and possibly extraneous diseases of the brain, but also to those brain conditions which we know and use only as mental states and mental activities in the sense of a dynamic psychology. We are beginning to consider as legitimate material of science what common sense has taught us and the teacher has long used in practice. We want to know the effect of certain activities and reactions on subsequent life, and also whether by modifying mental attitudes and habits we may not be able to avert trouble in the future[1]."

This thoroughly practical psychology deals therefore with *concrete data* drawn from the life and the conduct of the individual. Thus defined it is an objective science better qualified to penetrate into the medical world, so often sceptical and still sometimes affected, according to the delightful expression of the eminent psychiatrist of Baltimore, with real 'psycho-phobia.' But it is only fair to admit that this psycho-phobia is in part due to certain faults of the old traditional psychology. In spite of its progress in experimental research, this science has been somewhat wronged by those who have seemed to consider that its only field of investigation should be the purely abstract or subjective states of the soul, instead of insisting upon the functional importance of these states and maintaining the bridge connecting them with the rest of biology. As a result, psychology sometimes acquired in the medical world a reputation of uselessness, whereas it should long since have been

[1] Ad. Meyer. "What do histories of cases of insanity teach us concerning preventive mental hygiene during the years of school life?" *Psychological Clinic*, 1908, II, 90–91.

considered an important part of the programme of study of every future practitioner.

As soon as physicians come upon some abnormal mental reaction they are inclined to give up the attitude of plain common-sense, observes Meyer. They think it would not be scientific to see in these reactions nothing more than ineffective attempts on the part of the patient to adapt himself to surrounding conditions; and instead of discarding their prejudices and analysing the facts relating to the incident in question, "they pass at once to a one-sided consideration of the extra-psychological components of the situation, abandon the ground of controllable observation, translate what they see into a jargon of wholly uncontrollable brain-mythology, and all that with the conviction that this is the only admissible and scientific way[1]." Now then, in the majority of cases of mental disorders *functional facts* are the very first to be directly ascertained, and instead of indulging in anatomical hypotheses and juggling with words qualified by Meyer as 'neurologizing tautology,' it would be preferable to remain upon the ground of facts as they occur in reality.

A superficial knowledge of Meyer's doctrine might lead one to believe that he under-estimates the importance of somatic factors, but that is far from being the case. In his hierarchy of the different levels of complexity of an organism, the highest level, characterised by psychological symbols, is placed above the inferior, vegetative and reflex ones, but he does not eliminate these nor can he dispense with them. That is why the study of the non-mental conditions of a psycho-biological reaction is all-important. Practically Meyer makes the very most of the methods of investigation adopted by general medicine and of anatomical data, to the study of which he devotes the most minute attention. But we must never lose sight of the fact that this is not sufficient to explain any mental disorder; the highest level of complexity and the only one at which these mental phenomena occur, is precisely the one which permits of the best adjustment of the individual to the conditions in which he happens to be placed. There lies the main point, the essential part of the problem, which can be handled and expressed in psychological terms only. For this function of adaptation does not depend upon one particular organ of the body, but on the complete integration of the personality and on the influences of the surroundings in which it reached its full development. This is equivalent to saying that no state whether normal or morbid can be qualified as 'inorganic,' if that is

[1] Ad. Meyer. "Misconceptions...." *Loc. cit.* p. 172.

supposed to signify some condition *sine materia* quite inconceivable in biology. On the other hand, mental states are all functional by definition, in the particular sense that they are made manifest by some disorder or other in the higher functions of the individual—those concerning his social adjustments—whatever may be the part played by the non-mental factors generally, the vegetative and reflex, which must also be taken into account.

If Meyer's medical psychology gives the greatest importance to anatomy and physiology, it also makes the most of all the contributions which *introspection* yields. What is required is a close scrutiny of deep inner tendencies, to eke out, so to speak, the marks of the moral shocks through the subjective data furnished by the patient. By utilising this last means of exploration Meyer turns away from the over-strict doctrine of the orthodox behaviourists, according to whom in fact one should be concerned with the statements supplied by visible outward things alone, taking no account of the content of the states of consciousness. In Meyer's opinion, it is true, this content is of no importance in itself, but it represents concrete facts with considerable economy thanks to its symbolic capacity mentioned above; thus it helps the individual to adjust himself to real situations and the biological part it plays is of the utmost importance. The knowledge of this content and of all its deviations is therefore indispensable but subordinate, just as all the purely anatomical and physiological notions are for that matter, to a problem of general biology.

To our mind this broadly comprehensive point of view escapes the well-founded objections formulated against the narrow psychology of behaviourism, particularly by MacDougall, Roback, Claparède. Meyer's attitude, on the other hand, does not exclude the *purposive* character of the mental processes, a character upon which psychologists seem ever more inclined to insist[1].

[1] See on this subject the reports and discussions, at the last International Congress of Psychology (Oxford, 1923), by Myers, Piéron, Janet, Bovet, Claparède, Reymond, Adler, Head, Mitchell, Meyer, Adrian, Campbell, Jones, Abraham, Hart, *et al.*

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