

What is Psychology? By J. STEVENSON BUSHNAN, M.D.,
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Physiology is co-extensive with organic nature. Organic nature is wholly composed of individuals, comprising the two great kingdoms of plants and animals. A unity of structure pervades the whole of this wide field of nature ; and this unity is a great principle, applicable to the determination of truth in the investigation of this part of knowledge. Every individual in organic nature is a system made up of reciprocally dependent and connected parts. The objects of investigation in physiology are phenomena, organs, and principles. The study of phenomena stands first in order ; but while it must essentially be first cultivated and advanced, in the ulterior stages of its progress it gains continually fresh additions from the progress made in the knowledge of organs and principles. That phenomena attract attention before organs, is manifest on the slightest consideration. Thus the phenomena of locomotion were familiar to mankind long before the part taken by the muscular flesh in locomotion was discovered. To this moment it is far more certain that absorption takes place throughout the animal body, than what the organs are by which that office is performed. And it would be easy to multiply examples of the same kind, notwithstanding that there are some phenomena of the human body—such as those connected with the sense of sight, the sense of hearing, and other senses—the organs concerned in which must have been known, in a general manner, almost as soon as the earliest phenomena in which they are concerned. Principles, in their larger sense, take their place subsequently to the study of organs ; yet, as referring to the more common genera of phenomena, these must also have had their rise almost coeval with the observation of phenomena. Thus the grouping of colours, sounds, smells, and tastes together, under the name of qualities derived from sense, must have been a very early and universal generalization. Nevertheless, it will,

I think, be conceded, after these examples, that the study of phenomena is of a more elementary character in physiology, than the study of organs and principles; and, therefore, in the difficult parts of any physiological subject, that more progress is likely to be made by the study of phenomena, than by the study of organs and principles. But before proceeding further, it may be desirable to give some examples of physiological phenomena:—the alternation of sleep and waking; of hunger and satiety; thirst; the effect of drink; breathing; the exercise of the senses, and trains of thought; the various kinds of locomotion, walking, running, leaping, dancing. Here a question naturally arises—if trains of thought be physiological phenomena, does not all human knowledge fall within the definition of physiological phenomena? If the human race were not yet called into being, neither would human knowledge, it is true, have any existence in the world. And, it is doubtless true, under one point of view, that all that man has discovered; all that he has recorded; all the changes which he has made upon the earth since his first creation—are the effects of his physiological nature. But to place all knowledge under the head of physiology would be to defeat the very end of methodical arrangement, to which the progress of knowledge is so largely indebted. Nor is it difficult to mark out at least the general character of the boundaries within which physiology, in the largest sense in which it is convenient to accept it, should be circumscribed. Let us take as an example man's susceptibility of locomotion. It is a sufficient illustration of the physiology of locomotion to point out, that every man without any extraordinary effort learns to walk, run, hop, leap, climb; but there is at least a manifest convenience in separating such more difficult acquisitions as dancing, skating, writing, from the order of physiological phenomena, and placing each in a department by itself, as subject to its own rules. So also it is at least a convenience to consider painting and music as separate departments of study, and not merely as physiological phenomena, falling under the senses of sight and of hearing. It may be supposed to be a matter of the like convenience, to separate from physiology all the phenomena which enter into what are commonly called trains of thought; that is nearly all that comes under the head of psychology, in its most appropriate extent of signification. But several objections will readily occur to such a mutilation of physiology. In particular, it is objectionable, because, as was already hinted, the phenomenal departments

of physiology, though the first to take a start, are often much augmented by the subsequent study of the organs concerned ; and, more so that, since psychology, disjoined from physiology, and limited to one mode of culture, namely, by reflexion on the subjects of consciousness, were psychology thrown out from physiology, the probable advantages from the study of the organs concerned in the mental processes, and the other modes of culture, admissible in physiological enquiry, would be lost. If it be said that psychology proper rejects all evidence, except the evidence of consciousness, on no other ground, but because of the uncertainty of every other source of evidence—the answer is, that in those sciences which have made most progress, possibility, probability, and moral certainty have always been admitted as sufficient *interim* grounds for the prosecution of such inquiries as have finally, though at first leading to inexact conclusions, opened the way to the attainment of the most important truths ; and that psychology, by the over-rigidness of its rules of investigation, has plainly fallen behind sciences, in advance of which it at one time stood in its progress.

It will not, however, be easy to persuade the votaries of pure metaphysics to relinquish the vantage ground afforded to their science, by its exclusive dependence on the evidence of self-consciousness. Yet there is a ready expedient by which this difficulty may be overcome ; namely, by leaving the old metaphysics on its footing of dependence for progress exclusively on the evidence of self-consciousness, under the name of metaphysical psychology—while the psychology which avails itself of the assistance of the discoveries of physiology, in regard to the functions of the nervous system throughout the animal kingdom, may receive the name of physiological psychology.

But my present purpose is to attempt to settle in what sense the term metaphysics is to be received ; and again, within what limits the signification of the much-abused word psychology is to be fixed.

The term metaphysics is universally acknowledged to be vague in its signification. Yet it will be found that this vagueness of signification, arises solely from the vast number of still uncultivated subjects which it embraces. To take a common arrangement :—metaphysics falls under two great heads. 1st, general metaphysics or ontology ; and 2ndly, special metaphysics or pneumatology. Under the former head rank several subjects, not only of immense extent, but

of very great obscurity; for example—being and essence; substance and mode; non-existence and annihilation; the possible and impossible; the necessary and the contingent; the determinate and the indeterminate; duration; time; cause; effect. Under the latter head, or special metaphysics, come the properties of being; identity; similitude; natural theology; psychology.

Thus psychology, according to this view, constitutes but a single subsection of the great chapter of metaphysical science.

To take psychology in the first place, in the acceptation in which it stands in this subsection, what does it signify? It may be considered as signifying the phenomenology of the human mind; that is the phenomena ascertained to be existent by the evidence of observation through self-consciousness. Such phenomena are, 1st, the phenomena of knowledge; 2nd, the phenomena of feeling; 3rd, the phenomena of effort.

It must be confessed, however, that this word psychology has also been used by good authorities in a larger sense, so as even to be nearly synonymous with the term metaphysics. Thus psychology is sometimes, by such authorities, represented as signifying in its larger sense, the philosophy of the human mind.

As this word then can hardly be said to be as yet fixed in its signification, a question may arise whether such a word be more required in the larger or in the more limited sense. In debating such a question, the past use of the word, that is, where it has not been wholly abused, need hardly be taken into account. It is nearly three centuries since the word first appeared in works of metaphysics; yet it cannot be said in that long period to have earned for itself a definite signification. If it is to be employed synonymously with metaphysics, or at least with philosophy of mind, it must be regarded as having a two-fold character; namely, psychology proper, or the phenomenology of mind, and psychology inferential, synonymous with ontology or general metaphysics.

In what has been said hitherto, psychology has been regarded as either synonymous with, or falling under the head of anthropology—that is the psychical nature of man. But a question may arise, whether in adopting a new word of such a description, it would not be useful to comprehend within it also the psychical nature of such animals as seem to possess consciousness. This is probably a more important point than the former question, as to the extension of the signification

of this word. The correlative term psychical seems already to have become established, as applicable to every state of consciousness, whether in man or in any other animal; and a word which should include the phenomena of which consciousness forms a part throughout the whole conscious animal world, would undoubtedly be of the greatest convenience.

Were such a use of the word agreed upon, then psychology, in its largest sense, would be divisible into the psychology of man or anthropopsychology, and the psychology of the dumb creation, eneo-psychology (*ἐνεὸς mutus*); while the former or anthropopsychology, would as above, be divisible into inferential psychology, and empirical psychology, these two epithets being sufficient to indicate that anthropopsychology is referred to.

Such, then, are the large limits within which there is a legitimate—a defensible use of the word psychology.

But even these wide limits are too narrow to contain the vagaries of some modern votaries of this word. Their use of it is psychology run mad. We cannot always discover whether it be the doctor or his patients who are the objects of psychology; whether psychology be madness or mad medicine; whether it be like that “metaphysical aid” by which Lady Macbeth expected her husband to obtain a crown; or, like the character of the lady of whom the poet speaks:

“Call her the metaphysics of her sex,
And say she tortures wits as quartans vex physicians.”

But, let that pass. The sense in which psychology chiefly concerns the physician is, what was called above, empirical psychology, or that which treats of the phenomena of the human mind. Insanity has nothing to do with any other kind of psychology; nor has it anything to do with this kind of psychology, except that there cannot be any form of madness which does not consist in a failure of the mind to be subject to some one or more of the ordinary laws by which its healthy phenomena are regulated.

This proposition may require some illustration, since it has become so common of late years to regard psychology as being in some manner intimately mixed up with insanity.

Mental phenomena consist of trains of states of consciousness, more or less simple, or what is the same thing, more or less complex; more or less under the control of reason or the

regulative faculty. It would be easy to multiply examples of trains of thought. The mind may be readily traced as passing from a state of perception to a state of simple self-consciousness of a present thought; thence to a state of memory by suggestion; again, to a state of memory by reminiscence, or effort of memory; then, to a state of imagination; next to a state of comparison; and, by and by, to an exercise of reason, or of the regulative faculty. Such states constitute the faculties of knowledge or cognition. It may further be traced into states of feeling, and into states of effort, called of late, by some, states of conation. But, it may be asked, how do we come to determine the character of the state in which the mind exists at any one moment? The answer is—exactly in the same manner as in any other case in which natural phenomena are observed, with this difference only that the mind is at once the observer and the observed. This last peculiarity is the foundation of the distinction so much insisted upon in our day among metaphysicians; namely, the distinction of states of mind into subjective and objective. For, when the mind is considered as existing in a state calling for observation, it is in a subjective state; when, on the other hand, it is actually under self observation, it is in an objective state. But, to return to the result of such observation of the successive trains or states of mind, it is plain that the process of observation consists in remarking the several resemblances and differences between the various states of mind which arise in succession. The consequence of this operation is, that we throw those states of mind, otherwise termed states of consciousness, which closely resemble each other into groups or genera. Thus, the state of consciousness which constitutes the sensation of a red colour, resembles that which constitutes the sensation of a blue colour much more than either resembles the state of consciousness, which constitutes the sound of a trumpet, or the sound of a flute; while the two latter states of consciousness resemble each other much more than either resembles the smell of a rose, or the taste of honey. Thus, the several states of consciousness constituting the sensations derived from each of the five senses are readily grouped into as many genera, owing to the close resemblance which they respectively have to each other. In like manner the sensations as a whole, owing to the element of local seat common to all of them, are readily distinguished from what metaphysicians term internal perception, or the simple self-consciousness of a present thought, feeling, or

exertion. So, also, the consciousness of acts of reminiscence is readily distinguished from that of acts of imagination, owing to the peculiar characters recognised in these two groups of phenomena ; and so forth, with regard to all the several states of consciousness entering into what is termed a train of thought. Hence, the various states of consciousness constituting trains of thought, are grouped according to their resemblances and differences into sensations, reminiscences, imaginations, desires, emotions, volitions ; and into whatever other genera shall be sufficient to include all the individual states of consciousness which may come under observation.

It is further to be remarked, that states of consciousness, such as those enumerated above are not necessarily simple—that such states are more frequently complex ; for example, a sensation united with a remembrance ; a reminiscence with an emotion ; an imagination with a desire ; an emotion with a volition ; and so on each simple state of consciousness, being often variously combined with other states of consciousness into a highly compounded state of consciousness.

Besides the grouping of the various states of consciousness into genera, according to their resemblances and differences, so as to represent the phenomenology of the human mind by distinct names, bearing reference to the distinguishing character of each group, such as perceptions, suggestions, reminiscences, imaginations, and comparisons, psychology includes the observation of the rules, according to which particular states of consciousness, are determined to arise at the moment, in preference to others ; these are commonly termed the principles of association, or the laws of human thought.

Thus psychology, that is empirical psychology, may be described as having two principal ends, namely, to methodise the phenomena of the human mind by reducing these to groups ; and to determine the rules according to which such phenomena arise in their ever varying order of succession. It must be confessed, that in the former of these two great ends, namely, the methodising the phenomena of consciousness, psychology is infinitely more successful than in the latter, or the determining the rules according to which the phenomena present themselves. Nevertheless, it is a common persuasion, that the glory of psychology lies chiefly in having accomplished the latter of these two objects. A very short consideration will show how erroneous is such an idea. Psychology undoubtedly has discovered certain general rules,

according to which the succession of human thoughts is determined. Moreover, it should be admitted, that this knowledge is not without some practical value. Its real character, however, is almost entirely speculative. It is not of such a kind as to enable us to predict even the general course of a train of thought by knowing its commencement, otherwise than as a vague probability. Further, it is manifest, that individual peculiarities, to a great degree, overrule all these general laws of thought ; while temporary physiological conditions of the body, even within the limits of perfect health, exercise an incalculable influence over the course of thought which would otherwise have been determined. What a modification of the laws of thought does a single glass of champagne produce ! How many other slight causes of exhilaration will give rise to a like modification ! How many temporary causes of depression, will exert as great a power in an opposite direction ! The prediction of the course of a train of thought, under given circumstances, is hardly more certain than a prediction of the result of a cast of the dice from the dice box.

But it is a one-sided view to dwell on the mere succession of thoughts in a train as determined by such circumstances as contiguity, similarity and the like. Thoughts do not succeed thoughts like a long chain of connected events in physical nature. They do not follow each other under definite impulses, like wave upon wave.

It is, indeed, quite correct to say, that one cannot recover a thought which is missing, by a mere act of will : it can only be brought back by the principle of suggestion, in obedience to the established laws of our mental constitution. The things which are in the memory do not exist for the present in consciousness ; they are retained in the mind, but out of sight, until recalled by a reproductive faculty, namely, either by spontaneous suggestion, or by the effort termed reminiscence. Nevertheless, we have only to consider how extensive this power of reminiscence is over whatever exists, or even over whatever has existed in the memory, to be convinced of the vast indirect power which the *ego* exercises over its own trains of thought.

In our common systems of the nomenclature of the mental phenomena, this vast indirect power of the *ego* over the successions of thought, is hardly pointed out with sufficient distinctness. It is true we are told that, though we cannot call up any thought at pleasure, yet when a thought has come up, we can detain it, and dwell upon it as long as we

please. This proposition is commonly interpreted as denoting that the human mind is of a very passive character ; and that it is only by a train of fortunate accidents it can bring up for use the stores of knowledge, which it may contain. But to what is the proposition, that the mind can detain and dwell upon a thought at pleasure tantamount? Surely to this : that with very trivial exceptions, the whole contents of a man's memory are constantly at his disposal. For what thought is there that does not connect itself with a multitude of other thoughts, so as to bring each up in succession when it is detained before the mind. Again which of that multitude does not connect itself with a like multitude, so that by a continuance of this power of detention, nearly the whole contents of the memory may be at last exhausted. If it be said that every man does not possess such a ready power of bringing up his thoughts in such a manner, the answer is, that in such a man's memory his knowledge is not properly arranged, and that the sooner he sets about methodising it on a more skilful plan, the more available will it be for the use whereunto he designs to apply it. But after all it will be said, is not this process merely the reminiscence of psychologists. True ; but it is that faculty viewed from a point different from that whence it is commonly regarded. In short, when trains of thought are considered in connection with the laws which usually determine their succession, the mind is apt to be viewed as in a merely subjective state, such as is the state of reverie ; but man is seen to much greater advantage in the full activity of his mind when the *ego* is objectively occupied with thoughts, determining their rise, selecting those which he prefers, rejecting those which displease him when they but threaten to arise, coercing the dilatory, and compelling all to assume a fixed order and methodical array. Such a power unquestionably belongs to the *ego*. It is not the result of one faculty. It is often a combination of many different and even opposite states of consciousness. It is the exercise of the objective energy of the *ego*. Moreover, such a power is not developed but on great occasions ; even in the ordinary states of mental activity there is a similar objective control of the *ego*. To use but a mean similitude, the *ego*, in respect to the succession of thought, sits as at the table of a money changer, rejecting the counterfeit, receiving the real, computing its value, allowing what it is worth in exchange, and disposing of it in its proper drawer.

It is the regulative faculty or reason which is most con-

cerned in keeping our trains of thought nearly square with the perception of what is present, with the memory of the past, and what they derive from imagination within the bounds of truth to nature. Even in reverie this control is exercised to no small extent. In intoxication such control is not wholly lost. In dreams, on the other hand, there is often little trace of this controlling power to be met with. The laws of suggestion operate in dreams without any constraint; while in dreams the controlling influence of external realities as presented by perception is lost.

Dreams unquestionably belong to psychology. The evidence of dreams is the same self-consciousness on which the truth of waking reality rests. But while dreaming belongs strictly to psychology, it is the very type of mental derangement—which belongs not to psychology, but to the pathology of the nervous system. According to some psychologists, there is during sleep an unceasing state of dreaming. If this be true, it must be rare for a man to be otherwise than mad during sleep. But to become sane again he has only to awake.

It must be confessed, however, that though mental derangement does not strictly belong to psychology, that subject cannot be studied advantageously without the aid of psychology.

It was remarked above, that dreaming is a perfect type of mental derangement. In dreaming, the laws of human thought do not cease to operate; but the controlling influence of reason is lost—so also is the correcting effect of an external reality through perception. In mental derangement the controlling influence of the regulative faculty or reason is lost to a greater or less extent; and, although an external reality is before the eyes of the patient, that sometimes only adds to his delusion by presenting itself under a perverted form, owing to pathological alterations in the action of the organs concerned in sense; while, from the same cause, the ordinary laws of human thought, although not lost, are so modified that their results stand more than ever in need of that control, necessary even in health, of which the unfortunate condition of the patient has wholly deprived him. It was remarked above, that the laws regulating the succession of thoughts are much modified even within the limits of health, by slight physiological changes on the living system. How easy then is it to conceive that pathological changes even of no very great extent, may still more influence and modify such laws; and, if the controlling power be at the same time weakened, though only in a slight degree, the result will readily be some

of the strikingly marked forms of mental derangement. The effect of such slight pathological changes on the ordinary laws of thought commonly is, that thoughts arise in rapid succession connected together by very slight ties of resemblance, contiguity or parallelism; for example, the remembrance of any two articles lying across each other will suggest a gibbet in the form of a cross, while out of this gibbet a thousand grotesque images, all slightly in some manner or other connected, will arise. Examples of this kind are found to abound in dreams; and even in our waking moments there is frequently a threatening of the same kinds of absurdity, which, however, is put down at once by the regulating faculty. This may at first view appear incredible to many. But let a man watch himself for some time, and he will, it is certain, discover that but for the vigilance of the self-regulating faculty, he would often not only think, but even utter things which he would be ready to pronounce fit only to come into the mind, or to be spoken by the lips of a madman. Such are the effects which the laws of human thought would produce, were these not controlled and overruled by the objective energy of the *ego*.

But it is time to draw to a close. In a certain sense psychology is a department of physiology; and under that aspect it may derive improvement from those methods of cultivation which prevail in physiological science. Viewed as a department of physiology, psychology may be made to include all the phenomena throughout the animal kingdom, in which consciousness or the sense of existence takes a part. But more appropriately psychology belongs to anthropology, or what concerns man; and when limited in the greatest degree, it denotes the phenomenology of the human mind in its healthy state, or that part of human science which is cultivated by the observation of what self-consciousness suggests.