

Psychology: Brief Course

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WITH A NEW FOREWORD BY GARDNER MURPHY

Chapter 1

Introductory

Psychology Defined

THE DEFINITION OF Psychology may be best given in the words of Professor Ladd, as the *description and explanation of states of consciousness as such*. By states of consciousness are meant such things as sensations, desires, emotions, cognitions, reasonings, decision, volitions, and the like. Their explanation must of course include the study of their causes, conditions, and immediate consequences, so far as these can be ascertained.

Psychology is to be treated as a natural science in this book. This requires a word of commentary. Most thinkers have a faith that at bottom there is but one Science of all things, and that until all is known, no one thing can be completely known. Such a science, if realized, would be Philosophy. Meanwhile it is far from being realized; and instead of it, we have a lot of beginnings of knowledge made in different places, and kept separate from each other merely for practical convenience' sake, until with later growth they may run into one body of Truth. These provisional beginnings of learning we call "the Sciences" in the plural. In order not to be unwieldy, every such science has to stick to its own arbitrarily-selected problems, and to ignore all others. Every science thus accepts certain data unquestioningly, leaving it to the other parts of Philosophy to scrutinize their significance and truth. All the natural sciences, for example, in spite of the fact that farther reflection leads to Idealism, assume that a world of matter exists altogether independently of the perceiving mind. Mechanical Science assumes this matter to have "mass" and to exert "force," defining these terms merely phenomenally, and not troubling itself about certain unintelligibilities which they present on nearer reflection. Motion similarly is assumed by

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mechanical science to exist independently of the mind, in spite of the difficulties involved in the assumption. So Physics assumes atoms, action at a distance, etc., uncritically; Chemistry uncritically adopts all the data of Physics; and Physiology adopts those of Chemistry. Psychology as a natural science deals with things in the same partial and provisional way. In addition to the "material world" with all its determinations, which the other sciences of nature assume, she assumes additional data peculiarly her own, and leaves it to more developed parts of Philosophy to test their ulterior significance and truth. These data are—

1. *Thoughts and feelings*, or whatever other names transitory states of consciousness may be known by.

2. *Knowledge*, by these states of consciousness, of other things. These things may be material objects and events, or other states of mind. The material objects may be either near or distant in time and space, and the states of mind may be those of other people, or of the thinker himself at some other time.

How one thing can know another is the problem of what is called the Theory of Knowledge. How, such a thing as a "state of mind" can be at all is the problem of what has been called Rational, as distinguished from Empirical, Psychology. The full truth about states of mind cannot be known until both Theory of Knowledge and Rational Psychology have said their say. Meanwhile an immense amount of provisional truth about them can be got together, which will work in with the larger truth and be interpreted by it when the proper time arrives. Such a provisional body of propositions about states of mind, and about the cognitions which they enjoy, is what I mean by Psychology considered as a natural science. On any ulterior theory of matter, mind, and knowledge, the facts and laws of Psychology thus understood will have their value. If critics find that this natural-science point of view cuts things too arbitrarily short, they must not blame the book which confines itself to that point of view; rather must they go on themselves to complete it by their deeper thought. Incomplete statements, are often practically necessary. To go beyond the usual "scientific" assumptions

in the present case, would require, not a volume, but a shelfful of volumes, and by the present author such a shelfful could not be written at all.

Let it also be added that *the human mind is all that can be touched upon* in this book. Although the mental life of lower creatures has been examined into of late years with some success, we have no space for its consideration here, and can only allude to its manifestations incidentally when they throw light upon our own.

Mental facts cannot be properly studied apart from the physical environment of which they take cognizance. The great fault of the older rational psychology was to set up the soul as an absolute spiritual being with certain faculties of its own by which the several activities of remembering, imagining, reasoning, willing, etc., were explained, almost without reference to the peculiarities of the world with which these activities deal. But the richer insight of modern days perceives that our inner faculties are *adapted* in advance to the features of the world in which we dwell, adapted, I mean, so as to secure our safety and prosperity in its midst. Not only are our capacities for forming new habits, for remembering sequences, and for abstracting general properties from things and associating their usual consequences with them, exactly the faculties needed for steering us in this world of mixed variety and uniformity, but our emotions and instincts are adapted to very special features of that world. In the main, if a phenomenon is important for our welfare, it interests and excites us the first time we come into its presence. Dangerous things fill us with involuntary fear; poisonous things with distaste; indispensable things with appetite. Mind and world in short have been evolved together, and in consequence are something of a mutual fit. The special interactions between the outer order and the order of consciousness, by which this harmony, such as it is, may in the course of time have come about, have been made the subject of many evolutionary speculations, which, though they cannot so far be said to be conclusive, have at least refreshed and enriched the whole subject, and brought all sorts of new questions to the light.

The chief result of all this more modern view is the grad-

ually growing conviction that *mental life is primarily teleological*; that is to say, that our various ways of feeling and thinking have grown to be what they are because of their utility in shaping our *reactions* on the outer world. On the whole, few recent formulas have done more service in psychology than the Spencerian one that the essence of mental life and bodily life are one, namely, "the adjustment of inner to outer relations." The adjustment is to immediately present objects in lower animals and in infants. It is to objects more and more remote in time and space, and inferred by means of more and more complex and exact processes of reasoning. When the grade of mental development grows more advanced.

Primarily then, and fundamentally, the mental life is for the sake of action of a preservative sort. Secondly and incidentally it does many other things, and may even, when ill "adapted," lead to its possessor's destruction. Psychology, taken in the widest way, ought to study every sort of mental activity, the useless and harmful sorts as well as that which is "adapted." But the study of the harmful in mental life has been made the subject of a special branch called "Psychiatry"—the science of insanity—and the study of the useless is made over to "Æsthetics." Æsthetics and Psychiatry will receive no special notice in this book.

All mental states (no matter what their character as regards utility may be) are followed by bodily activity of some sort. They lead to inconspicuous changes in breathing, circulation, general muscular tension, and glandular or other visceral activity, even if they do not lead to conspicuous movements of the muscles of voluntary life. Not only certain particular states of mind, then (such as those called volitions, for example), but states of mind as such, all states of mind, even mere thoughts and feelings, are motor in their consequences. This will be made manifest in detail as our study advances. Meanwhile let it be set down as one of the fundamental facts of the science with which we are engaged.

It was said above that the "conditions" of states of consciousness must be studied. The immediate condition of a state of consciousness is an activity of some sort in the cerebral hemispheres. This proposition is supported by so many

pathological facts, and laid by physiologists at the base of so many of their reasonings, that to the medically educated mind it seems almost axiomatic. It would be hard, however, to give any short and peremptory proof of the unconditional dependence of mental action upon neural change. That a general and usual amount of dependence exists cannot possibly be ignored. One has only to consider how quickly consciousness may be (so far as we know) abolished by a blow on the head, by rapid loss of blood, by an epileptic discharge, by a full dose of alcohol, opium, ether, or nitrous oxide—or how easily it may be altered in quality by a smaller dose of any of these agents or of others, or by a fever,—to see how at the mercy of bodily happenings our spirit is. A little stoppage of the gall-duct, a swallow of cathartic medicine, a cup of strong coffee at the proper moment, will entirely overturn for the time a man's views of life. Our moods and resolutions are more determined by the condition of our circulation than by our logical grounds. Whether a man shall be a hero or a coward is a matter of his temporary "nerves." In many kinds of insanity, though by no means in all, distinct alterations of the brain-tissue have been found. Destruction of certain definite portions of the cerebral hemispheres involves losses of memory and of acquired motor faculty of quite determinate sorts, to which we shall revert again under the title of *aphasias*. Taking all such facts together, the simple and radical conception dawns upon the mind that mental action may be uniformly and absolutely a function of brain-action, varying as the latter varies, and being to the brain-action as effect to cause.

This conception is the "working hypothesis" which underlies all the "physiological psychology" of recent years, and it will be the working hypothesis of this book. Taken thus absolutely, it may possibly be too sweeping a statement of what in reality is only a partial truth. But the only way to make sure of its unsatisfactoriness is to apply it seriously to every possible case that can turn up. To work an hypothesis "for all it is worth" is the real, and often the only, way to prove its insufficiency. I shall therefore assume without scruple at the outset that the uniform correlation of brain-states with mind-

states is a law of nature. The interpretation of the law in detail will best show where its facilities and where its difficulties lie. To some readers such an assumption will seem like the most unjustifiable *a priori* materialism. In one sense it doubtless is materialism: it puts the Higher at the mercy of the Lower. But although we affirm that the *coming to pass* of thought is a consequence of mechanical laws,—for, according to another "working hypothesis," that namely of physiology, the laws of brain-action are at bottom mechanical laws,—we do not in the least explain the *nature* of thought by affirming this dependence, and in that latter sense our proposition is not materialism. The authors who most unconditionally affirm the dependence of our thoughts on our brain to be a fact are often the loudest to insist that the fact is inexplicable, and that the intimate essence of consciousness can never be rationally accounted for by any material cause. It will doubtless take several generations of psychologists to test the hypothesis of dependence with anything like minuteness. The books which postulate it will be to some extent on conjectural ground. But the student will remember that the Sciences constantly have to take these risks, and habitually advance by zigzagging from one absolute formula to another which corrects it by going too far the other way. At present Psychology is on the materialistic tack, and ought in the interest of ultimate success to be allowed full headway even by those who are certain she will never fetch the port without putting down the helm once more. The only thing that is perfectly certain is that when taken up into the total body of Philosophy, the formulas of Psychology will appear with a very different meaning from that which they suggest so long as they are studied from the point of view of an abstract and truncated "natural science," however practically necessary and indispensable their study from such a provisional point of view may be.

The Divisions of Psychology

So far as possible, then, we are to study states of consciousness in correlation with their probable neural condi-

tions. Now the nervous system is well understood to-day to be nothing but a machine for receiving impressions and discharging reactions preservative to the individual and his kind—so much of physiology the reader will surely know. Anatomically, therefore, the nervous system falls into three main divisions, comprising—

- 1) The fibres which carry currents in
- 2) The organs of central redirection of them
- 3) The fibres which carry them out

Functionally, we have sensation, central reflection, and motion, to correspond to these anatomical divisions. In Psychology we may divide our work according to a similar scheme, and treat successively of three fundamental conscious processes and their conditions. The first will be Sensation; the second will be Cerebration or Intellection; the third will be the Tendency to Action. Much vagueness results from this division, but it has practical conveniences for such a book as this, and they may be allowed to prevail over whatever objections may be urged.