The New Psychology[1]

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The department of psychology is in some sense new in this country as a university specialty. On one side it represents, in part, that oldest and most unsettled of collegiate branches, philosophy. Thrice in its academic history the latter has been the dominant intellectual passion of the ablest and most ingenuous young men, and has spread itself over a large part of the entire field of knowledge. First it degenerated with the Greek mind; in the Middle Ages theology, and later science, absorbed much of its domain and led it into dishonorable captivity. We look in vain to the practice of its professed teachers in Europe or in this country, past or present, for any such agreement concerning its methods, problems, or scope as marks off work for other chairs, while sections of its acknowledged area are covered by a rank growth of popular idols and presuppositions long since eradicated elsewhere. On this university foundation philosophy is likely to find little of the academic ease and leisure which some of its ablest representatives in the past have thought its needful soil, and none of the factitious dignity which sometimes invests it, in curricula where little science is learned, as a finishing or culminating study taught only to seniors, and by the president alone. In this high normal school for special professional teachers where so many fashions in higher education are now set, with a virgin field free from all traditions so apt to narrow this work, and just as we are entering an age when original minds in all fields are giving increased attention to its problems, and perhaps, as is now said from several high and impartial standpoints, to be known in the future as the psychological period of intellectual interest and achievement,-- if philosophy is to strike root in such soil and season and thrive in an air so bracing, it should, I strongly believe, take on some new features, may attempt some scientific [p. 121] results beyond exposition, and must satisfy some of the crying educational and religious needs of our nation.

With your indulgence, then, I will roughly and hastily sketch the present condition of the department:--

I. Schelling well said that one of the best tests of a philosophy was the way it regarded what is somewhat vaguely called instinct, which has been a perhaps unconscious *punctum*

saliens of a number of more or less developed systems since the old *Natur-Philosophie* which may be called its apotheosis. Most of the voluminous literature on this subject in our libraries is of little scientific worth. It is about as illogical to say, either in the sense of the Stoics or of Descartes, that what seems sensation and intelligence in animals is really mechanical, as it is to reason from their unconscious wisdom to a world-soul guiding toward an unknown pole of human destiny and making history in fact very different from the history of man's purposes; or to revere them, as Herder did, as nearer to God than man is, or as teachers of medicines and many arts; or even to practice augury from their greater wisdom or finer senses, as perhaps transmigrated souls. Neither the instinctive nor the conscious should be allowed to become the key or type by which to explain the other, as has so often occurred. Facts here must not be uncritically described in the language of human sentiments and institutions, as if actions that accord with wisdom implied a conscious purpose in the agent. Even in saying that the tailor-bird sews, the beaver makes a dome, wasps make paper, bees live in a state, we reduce them to human standards, and interpret rather than record observations. Yet it must never be forgotten that from another standpoint this gives the deep and religious satisfaction of feeling the world rational to the root,-- an atonement between consciousness and its unconscious foundation. Hence the joy of finding beneath us traces of purpose and design. Again, evolutionists have in some cases regarded instinct, as Lotze did many reflexes, as lapsed or fallen intelligence,-- even memory being instinct in the making,-- while others conversely view it with Darwin as rudimentary mind on its way to consciousness. When we reflect on the vast and mysterious past of experience involved in all instincts, and that some of them are possibly -- if we can accept Palméns doubtful methods -- older and more unchanged than the bed of the Mediterranean, and that, save in the case of a few domestic breeds, we know almost nothing of the history of instinct, conjectures like the above must also be pronounced premature. What is now [p. 122] wanted here is many painstaking studies of single species or animals like Erber's long moonlight studies of trap-door spiders, Spaulding's experiments upon chickens on emerging from the shell Morgan's observations of beavers, Darwin's researches on the intelligence of earth-worms, Forel, Moggridge, McCook, and Lubbock on ants, such as, with a few dozen more of like method, constitute all the really valuable literature on the subject. Scientific ingenuity in devising methods of experimentation is perhaps nowhere greater or surer of fresh and valuable results which may be obtained by the study of any form of animal life about us. In the articulates, at least, where instinct seems to attain its greatest perfection, it is hardly less fixed, complex, hereditary, or finely and characteristically differentiated among species than their anatomical structure itself. Its study is also not only no less scientific, but, as in the case of parasitic insects, and those harmful to vegetable life, and of those forms of disease in man fixed by the habits of colonies of minute animal forms, no less practical. By sets of questions so devised as to enable hunters, trappers, trainers, stock-raisers, keepers of pets, etc., to supply facts, and by sifting the incidental literature of the chase, the domestic animals,-- as, *e.g.*, of the horse in the days of knight-errantry, when he was taught a score of fancy gaits and tricks, and when he was psychically far nearer to man from closer intercourse, and because ridden on, and not behind,-- both these methods will surely yield, with much chart, many kernels of valuable observation and insight. The smallest -- if well selected -- zoölogical collection in every city park would not only be of high educational value to every child, but might find, if not its Brehm, yet no less acute observers than he to make it tributary to the rapidly-growing science of comparative psychology, by which so much once thought accessible only by introspective or speculative methods is treated objectively and with great methodic advantage. Thus, besides their intrinsic and their practical value, such studies shed light on the nature, and often on the psychic genesis, of what is *a priori* and innate in man. Not only his automatic nature generally, with impulses, desires, and appetites, but conscience and the movement and rest of attention, are, in a sense, instinctive; so that so far from being inversely as reason, as is often said, much that makes the human soul really great and good rests on and finds its explanation in animal instinct. Still lower and broader is the field which Mr. Taylor has very prematurely called vegetable psychology. The root penetrates the [p. 123] soil with a motion like, and no less fit than, the worm, and the tip of the root in many ways resembles in functions a tiny brain. The tricks of carnivorous, and the movements of climbing, plants, and, in fine, the boundless plasticity which fits every condition and fills full every possibility of life, show a wisdom beneath us we cannot escape if we would, and on which, when conscious purpose and endeavor droop, we can rest back, with trust, as on " everlasting arms."

II. More central, and reduced to far more exact methods, is the field of experimental psychology. This properly begins in the physiology of the excised nerve and the striated or voluntary muscle. The action of the latter is the only exponent we have, except the wave of negative electrical variation, of what takes place during the transmission of a psychic impulse in the fibre which Henle thinks even more important for it than the nerve cell itself. For a long time after Galvani's discovery of the marvelous reanimation of these tissues by contact with two dissimilar metals, scientific men no less sagacious than Humboldt, who recorded two volumes of now worthless observations, thought themselves near a demonstration of vital force. The problems that thus arose really became accessible only after the invention of the multiplicator and the double astatic needle, which were first combined in their study by Nobilis in 1826. Since then Du Bois-Reymond and Matteucci, whose work the former strangely underrates, and many younger investigators, have explored many effects of several stimuli under varied conditions, which no one interested in the study of voluntary movement can safely ignore. The facts are too complex and the theories at present too unsettled and conflicting for exposition here. Whether it be right or wrong, it is the hypothesis that the nerve-muscle preparation is only a mechanism with no vital principle in it, and could be made to give (although results have, it must be confessed, been often less exact than was hoped for) perfectly constant curves and currents if all its conditions a could be controlled, that has prompted nearly all work in this field.

When nerve cells occur between the stimulus and the muscle, we have what is called reflex action, from the curious conception of Astruc, who first used the term, that impressions going inward along the hollow nerve tubes struck the smooth, inferior surface of the *corpus callosum*, and were reflected outward along motor tubes with equal angles of incidence and reflection. In its modern sense this term now designates one of the most fundamental categories [p. 124] of physiological psychology; and its needlessly laborious demonstration by , because studied on the cranial instead of the spinal nerves, in 1821, and by Magendie independently later, marks the most important epoch in the history of neurology. It was made just at a time when anatomists were disheartened by the apparent lawlessness of the nervous system, and were turning back to Haller, and even Galen, and aroused at once -- especially when introduced into by Johannes Müller in the next decade -- the greatest interest and activity. Even neural anatomy, which had made little progress since the great brain-dissectors of the seventeenth century, was resumed in epoch-making works like those of Van Deen and Stilling on the spinal cord, and physiology began to go beyond the microscope in Türck's determination of the peripheral distribution of each pair of sensory spinal nerves. There were speculators who objected that to give a solid structural basis to the distinction between sensation and motion, instead of admitting that all fibres mediated both, was to restrict the freedom of the soul, and to dualize, if not to phrenologize, it into a posterior and an anterior soul (rather than a right and a left brain-soul, functioning alternately, as Dr. Wigan had said). The researches on inhibition begun by Setschinow,-- so suggestive for the study of the negative field of attention if not of hypnotism, -- the light shed on the problem of automatism vs. a psychic rudiment by the observations of Marshall Hall and of Pflüger, the studies of Ludwig's school,-- again the most valuable in this field, and on the most mechanical hypothesis,-- Wundt's explanation of his observations,-- which, however conjectural, has the great merit of unifying many partial hypotheses of ultimate nervous action,-- the ingenious experiments of Goltz, and scores of other special studies of various aspects of reflex action have cleared up and made more tangible many important psychic concepts. Unscientific as it would be to assume with Spencer, who writes without knowledge of these, or of German. researches generally, that a "reflex arc" and its function is the unit out of which brain and mind are compounded, still it is wise to conceive the former as a complex reflex centre of many mediations between the senses and the muscles, and human faculty in general as measured by the strength, duration, freedom, accuracy, and many-sidedness of our reactions on the various stimuli which reach us.

Consciousness itself was first subjected to methods of exact experiment by E. H. Weber, who published the results of nearly twenty years of the most painstaking observations on the senses [p. 125] of touch and pressure in a monograph of almost ideally perfect form, written and rewritten in German and Latin, more than fifty years ago, and who wrought out the first form of the psycho-physic law, the exact application of which is now reduced to very narrow limits. The study especially of the retina -- genetically a part of the brain and in a sense the key to its mysteries and an index of its morbid states, itself now so accessible to

observation, and its functions to experiment -- has enabled us to penetrate into the problems of visual form and color, and in connection with touch (under the long tuition of which vision is educated in our infancy, till it finally anticipates, abridges, and reduces its processes to a rapid algebra of symbols) has brought us into far closer quarters with the nature and laws of motion, reality, and space itself, than Locke, Berkeley, Hume, or Kant could penetrate. Not only physiological optics, but acoustics, is now almost a science by itself. By their psychic chemistry, elements of mind long thought simple and indecomposable have been resolved into ulterior components. This analysis Helmholtz, a few years ago, characterized as the most important scientific achievement of recent times, which have seen many philosophic themes till lately thought accessible only to speculation enter the laboratory, to be greatly cleared up by restatements, and often to be solved. The difficulties of experimenting on smell and taste, dizziness and the muscle sense, are being slowly overcome, and new sensations, such as local signs and innervation-feelings,-- no more accessible to direct experience than atoms,-- are postulated. All who have absorbed themselves in these studies have seen the logical impossibility of every purely materialistic theory of knowledge. Another line of researches which have greatly aided those must be mentioned. The rapidity with which neural processes traversed the nerves was thought by physiologists of the last century to be near that of light or of electricity. In 1844: Johannes Müller declared that their rate could never be measured, and Du Bois-Reymond published his great work on the electrical properties of nerves and muscles in 1849 with no mention of the subject; yet the very next year this velocity was measured, with much accuracy, by Helmholtz. Now the personal equation (or the shortest possible time intervening between, *e.g.*, the prick of an electric shock on the surface of the first finger of one hand, and the pressure of a key by the other, occupying perhaps fifteen one-hundredths of a single second) is resolved into several elements, enabling us to measure with great chronoscopic accuracy the time, and by inference [p. 126] the complexity and familiarity of many simpler psychic processes, and to explore many kinds of memory, association, and volition under the action of attention, toxic agents, fatigue, practice age, etc. When we add to this the rhythms, beginning perhaps fine intermittency in all nervous action, breaking vocal utterance into articulation, cadence, and rhyme, and widening into the larger periodicities now just beginning to attract attention in health and disease, it is plain at least that the old treatment of time as a simply form or rubric of the sensory was perhaps still more superficial than that of space, and that those who still persist in speaking of acts of human thought as instantaneous, or even independent of time, may be asked to demonstrate at least one such act or thought. Although thus far chiefly applied to the study of elements fundamental to consciousness rather than to is more complex processes, these methods are now rapidly multiplying and extending their scope, and even apart from all results have a quickening educational influence on all who seriously work them as a unique field of applied logic.

The brain itself, the most complex and unknown of all the bodily organs, is now studied with as much specialization of both field and method as modern astronomy. If in one patient the right arm is lost or paralyzed, and after death certain bundles of fibres and certain cortical areas are found decayed, the inference that they are connected is strong. It is still stronger it conversely in other patients brain lesion, by wound or tumor, causes loss of function in the arm; and stronger still, it these fibres acquire their medullary sheath before others around them in the embryo, and can be traced from the arm to the same part of the cortex, By the consilience of these methods, supplemented by physiological experiment on animals, and in part by patiently tracing normal fibres with the microscope, approximate localizations of brain centres for the movements of the legs and, especially, the arms now seem established. General centres for speech and, perhaps, vision, though subject to individual variation, and not sharply defined, now seem also made out. Munk's distinction between central and penumbral spheres, Meynert's bold designation of the arched fibres that join convolutions as association fibres, a mild form of Goltz's theory of functional regeneration, the ascription of either commissural, reproductive, or balancing function to the cerebellum and of motor mediation mainly to the striate, and sensory to the thalamic body, seem, if less certain, and resting on very different kinds and degrees of evidence, now very probable. [p. 127] So far, the temporal regions of the brain seem most and the frontal region least crowded with functions, liable to decay, and sure to show functional impairment from slight lesions. The range of individual variation, and how far we may infer from experiments on animals to man, is by no means made out. Experiment and disease show that there are psycho-neural processes localized in fibres that can be

approximately counted,-- as those of the optic nerve and the cervical cord have been,-- and dependent on the integrity of specific cell groups, which no one who knows the facts, now easily shown, could think due only to an imponderable principle mediating freely between parts without necessitating connection of tissue. But if all cells and fibres involved in each act of the mind or emotional state might be conceived to be numbered and weighed, and all the circulatory, thermal, chemical, and electrical changes exactly formulated, the sense of utter incommensurability between these objective relations and the closer, more intimate consciousness of such acts and states would be sufficient as a corrective of materialism and as a positive justification of an idealistic view of the world.

The study of symptoms and abnormal states of every type and degree has also lately received new impulses. Painstaking- monographs are now multiplying on such subjects as the periodicities of the insane; detailed explorations of the mental states of individual lunatics, with the history of each illusion from its inception; or extended comparative studies of single deliriums, as of persecutions or of greatness; the writing or drawing of the insane; the complex psycho-physics of epilepsy, with all its finer shadings up into perfect health; the detailed elaboration of manifold types of aphasia; or again the special psychology of each crime class; biographies and family histories of great criminals ; the study of the blind, deaf, pauper types and other defectives, and of dreams. Nothing is just now more needed or more promising here than a comparison of carefully taken psychic observations of cases of acute mania with the cortical discoloration which commonly attends it. The successful student of these states requires the rare combination of an insinuating, sympathetic temper, of a perhaps itself infinitesimally neurotic type, with power to trace all morbid psychic phenomena in others to and identify them with fainter experiences of his own, along with the most objective discriminating sagacity. The infection of these states is so subtle in imaginative minds and the *katharsis* so long and serious that they should be undertaken by the general student of psychology very rarely or [p. 128] not at all. Yet all who would teach or profoundly study the laws of mind must now know something of its disease forms, both for their high practical and their pedagogic value, and all our public institutions where these unfortunate classes are gathered should offer every facility and encouragement to competent observers. Even a course of reading in psychiatric literature is now sure to transfuse and reanimate several quite atrophied departments of mental science.

Experimental psychology, in fine, seeks a more exact expression for a more limited field of the philosophy of mind (while widening its sphere to include the physical, emotional, and volitional as well as the intellectual nature of man), to which its fundamental and, in the future, conditionary relation is not all unlike that of physical geography to history. Baconian, or, more historically, Roger Baconian, methods, after reconstructing thought in other fields, are at last being applied to the study of those qualities and powers by which man differs from animals, and which in medical study and practice have been of late far too much ignored, and by metaphysics far too exclusively considered. The time was when the doctor, who can see human nature in its weaknesses and extremes no less transparently from his standpoint than the clergyman from his, studied to control the mind and heart and imagination of his patient, instead of leaving this for quacks, as well as to drug his body; when, before the power to take the *whole* man into account had been lost in easier micrologic medical specialties, he really deemed nothing human alien from himself, and often merited the Hippoeratic beatitude, " Godlike is the doctor who is also a philosopher." This part of psychology has been termed medical and physiological by Lotze and Wundt respectively, who have tried to compile its results, and surely merits the high place it is now winning in the best medical as well as philosophical courses of study, and unquestionably has a great future before it. With all the resources of the biological laboratory and your vast hospital here freely at its disposal, some good work in these lines may surely be hoped for here.

III. The needs of the average student, however, are no doubt best served, not by comparative, or even experimental, but by *historical* psychology, which seems no less adapted to the need of humanistic than the former to those of scientific students. As German teachers slowly realized that the force of the great systems in vogue there half a century ago was spent, and that further progress in those directions was impossible, they came to see in [p. 129] how important a sense to know truly is to know historically, and rescued their department from

decay by renouncing construction for the exposition and criticism of philosophic opinion in the past. To this work nearly half the courses in Germany in this department are now devoted, and philosophic curricula in tins country are becoming more and more historical, and with great gain. Indoctrination into one finished system, with no knowledge of others, makes real philosophizing impossible, and weakens the capacity to take in others' views unchanged, which is well conceived as one chief end of education. There is a vast mass of| reasoned truth in the past, acquaintance with which restrains young men from wasteful extravasation of thought, by holding them to the normal consciousness of the race, and yet at the same time deepens mental perspective and gives a wider comparative habit of mind, by rousing a love of many sides and points of view. A good teacher can secure this end without confusing inexperienced minds by conflicting theories and without danger of the depressive influence which comes from mere acquisition, or from more reading than reflection.

Historical psychology seeks to go back of all finished systems to their roots, and explores many sources to discover the fresh, primary thoughts and sensations and feelings of mankind. These some are seeking in the stages of individual development from the earliest infancy up through the ferment and regeneration of the prolonged period of adolescence. Others develop the tact to extract them at first hand from savage races, among whom their traces grow more sacredly secret as tribes lose their ethnic originality. Others elaborate them from the history of the meanings of words and from folk-lore; while yet others are critically reconstructing them by long comparative study of all the recorded habits, beliefs, rites, taboos, oaths, maxims, ideals of life, views of death, family and social organizations, etc.;-- in short, not only from the entire field of the *muthos* or *logos*, but from what Maurice calls, the *ethos*, and Grote the *nomos* of extinct civilizations. This "higher anthropology" searches for such primeval notions of things as a naturalist for new species, and has a passion for pooling all sentiments, opinions, and views that have been actually entertained, even if they do not instantly fit as missing links in any elaborated scheme. When in the development of a race such material shoots together in cosmogonies, national epics, or ethnic -- as very distinct from revealed -- bibles, the psychic basis for a period of culture is laid, a spiritual cosmos begins. Of this same [p. 130] mother-lye, too, philosophy :it its best is but a more elaborate organization. Thus constituted, philosophy always labors to start from the common vulgar standpoint, and to dignify homely, commonplace things and duties, as Socrates did; it is always saturated with local color, and -- instead of being gaspingly thin and abstract, as it appears to those who in periods of strong discipleship and little originality study the great systems from the texts, ignoring the psychic environment whence they sprung -- always seems the most warm and condensed of all the manifold expressions of man's needs and ideals. With a different ethnic basis all systems would thus have been different, so that the "exhaustion method" that works by thought possibilities, if not far wiser than it knows, is *forced*, and sooner or later its work must be done over again. Neither the popular consciousness of any one nor of all races combined can be said to have exhausted the possibilities of thought; much less can this be said of any or all of the historic systems, of which life -- which could not be conducted a day by the systems (without some form of which not only civilization but intelligence would collapse), which cannot be studied by them save as the sun is studied from shadows, from which they sprung, and into which they sink again -- is always far ahead. All this was best illustrated among the Greeks, where both the name and the thing philosophy originated. There it was indigenous, freely determined by all the past, and homogeneous as the Greek blood. I am of those who think of Plato at his best, as a genial artist, who before the critical spirit of science had limited the sphere of invention, and at a time when conviction was decaying and egoism was undermining all foundations, fell in love with the ideal of the beautiful-good (kalokagaqia), and combined old philosophemes with the deeper insights of his own day, and sought moral regeneration by infecting men with a passion for his ideal. Like every *living* philosophy, it was essentially national. It was literature at its highest and best, and became dogma only in its decline, and was ethically inspired.

In view of all this we may say, not, I think, that psychology is all there is of philosophy, as Wundt does, nor even that it is related to the systems as philosophy to theology, nor that it is a philosophy of philosophy, implying a higher potence of self-consciousness, but only that it has a legitimate standpoint from which to regard the history of philosophy,-- a standpoint from which it does not seem itself a system in the sense of Hegel, but the natural history of mind, not to be

understood without parallel [p. 131] study of the history of science, religion, and the professional disciplines, especially medicine, nor without extending our view from the tomes of the great speculators to their lives and the facts and needs of the world they saw. It strives to catch the larger human logic within which all systems move, and which even at their best they represent only as the scroll-work of an illuminated missal resembles real plants and trees, in a way which grows more conventionalized the more finished and current it becomes. In a word, it urges the methods of modern historic research, in a sense which even Zeller has but inadequately seen, in the only field of academic study where they are not yet fully recognized.

From this standpoint we must regard the chief traditions or philosophemes in the history of thought, as three, now characterized somewhat as follows: The first took earliest shape under the obstetric art of Socrates as the concept, and was better defined by Plato's doctrine of ideas or forms. In another way it appears again in Aristotle's theory of categories, half deduced, half gathered from the agora, and which Kant assumed without criticism and with too little change; and later in the universals, innate ideas, exemplary forms and species of the schoolmen, as Hegel's diamond net-work, which made the universe real because it made it rational, as the pure entities in the artistic contemplation of which Schopenhauer thought the soul found its only surcease from pain, and even as the *natura ipsissima* of God himself, to know which was conscious immortality, while it is no less historically represented in the theory of fixed types in nature, which have constituted the chief obstacle which evolution has had to encounter in every field and form. This assumption of fixed substantial norms or forms -- precious because brought forth by such severe travail of soul,-- now thought to be immanent, now transcendent, here in the field of nature, there of mind, partly inherited from the Greeks, yet instinctive in every mind -- needs to be traced through its many forms, as the key to much of the thought and many of the great controversies of the world, and properly treated is of the highest educational value. On every hand, however, are rutty, ultra-categorical minds and books whose whole philosophizing consists in adopting or adapting some set of categories from the many by no means accordant tables of them, and pigeon-holing among them all facts of matter or mind with an often ill-concealed "air of repressed omniscience," as if they were hierophants initiating into esoteric mysteries and jealously guarding all metaphysical orthodoxies. Easily made changes in the [p. 132] name, number, order, or prominence of these norms meets any exigencies of controversy or morals, and few as they are, and many as are the books, they are by no means exhausted, nor the vast mental spaces that can be thus "triangulated" by their definition alone explored. Substance, cause, time, space, and all the rest are not simple, as is assumed, in the sense of indecomposable by psychic analysis. They mark the points where thinking stops as well as starts, and no definition of them can be so exact as to sustain a long argument unswervingly. Without such norms, knowledge and experience could no more become objects of science than physical nature if there were no laws, but they will submit to more adequate formulation if we study their validity rather than their fit or consistency. The influence of psychology upon the creations of speculative genius in this field is not unlike that of science upon poetry. It is opening to it a new world, and rendering the charm, of the old still more subtle.

The second historic standpoint is the mechanical. Though older than Democritus, it entered the modern world as a result of the great discoveries and inventions which heralded the Reformation. Descartes, who could not think except in visual and mathematical terms, and Borelli, by his great work on the motions or animals, and the iatro-mechanical school of medicine thus founded, which treated digestion as trituration, secretion as sifting. circulation as hydrodynamics, and nerve action as vibration, and made mathematics for a long- time the preliminary study of physicians, represents its "storm and stress " period. Part of the force of this tendency expended itself in practical inventions, part was lost in the vagaries of popular materialism, and the best of its impulses were revived and are still felt in the German school of physiology since Weber, which has raised the whole art and science of medicine in that country from a very low to its present commanding estate. Not content with the attempt to reduce inanimate nature to terms of measurable force and matter, it prompted Herbart's effort to resolve the mutual action of concepts to exact static and dynamic terms, proposed the psycho-physic law and the hedonistic calculus and a logic so exact as to be literally mechanical, and ever since Spinoza has cherished the assumption that philosophic problems might be reasoned out by geometrical methods, and favors mechanism in thought and morals by emphasizing

every material trope and analogy. It is the standpoint of which Lange is the best historian, and against which the main current of Lotze's philosophizing was from the first directed, and which [p. 133] he called universal in extent, but everywhere subordinate in function. If on the one hand it is often less respectful to the great traditions of humanity, if it breeds an indifference to many themes yet held in highest reverence that recalls the old agnostic maxim, *quœ supra nos, quid ad nos*, if taken extremely it eliminates freedom, responsibility, and immateriality from the problem of life,-- let us not forget that it has also brought the human mind to a sharper focus with less dispersive fringes than ever before in the history of thought, on to all things within its range, even though others beyond it are blurred and distorted.

For the third historic standpoint I know no better name than that of self-consciousness, a far narrower term and thing than self-knowledge. The remote result of the Reformation was to raise the question in a few of the most vigorous and serious minds of Europe: What if even our philosophy, too, be but the most refined of superstitions, and all articulate systems idolatry, and we must make *tabula rasa* of all current hypotheses and presuppositions about ultimate truth, and seek some kind of *ataraxia* in knowing that we can know nothing. Self-examination reduced them to the condition of primitive thinkers with no consensus, facing a universe perhaps too vast to have any character assignable by man, because greater than all that can be called thought, before, as it were, an unrevealed logos, an unrelated absolute, an unheteronomized ought, an unobjectified will. Hume would not have said that we must doubt all that we cannot prove, yet it was natural in an age of such rapidly deepening self-involution of thought that he should be taken far more seriously than he meant by Kant, who, more than any other, has made men content with a rational and practical arrangement of concepts, even if they cannot express the real nature of things, but only our thought of them. From this standpoint many have seemed to seek proof of, if not, indeed, a substitute for, the objective validity of ideas in the fit and consistency with which they can be juxtaposed, assuming that from their contact in individual minds the only real continuity in thought could be inferred. Others, by an introspective involution of thought, have believed that thus it could be made as deep as the ego and as broad as the all, and raised to a potence almost divinely creative. Taken extremely and alone, or in some of its manifold combinations with the first standpoint, this philosophic tradition tends to reduce both the world of matter and all the great realities of religion to a system of long-accumulating deposits and projections of the human consciousness, or to resolve [p. 134] nature as well as theology into anthropology. Man's mind is the measure of all things, the secondary and even primary qualities of matter, and all spiritual goods are alike subjectively conditioned or even constituted. The degenerate forms and products of this philosophic direction are too complex to be traced here.

These three spheres of thong-lit, to tracing the details of which through the various systems the history of philosophy is devoted, are still to a great extent unharmonized. The psychologist, at least, is not satisfied with any attempt to reduce the categories to an organic unity of consciousness. The Greek conception of form and the self-affirmation of Protestantism are now seen to be segments of a larger orbit of thought than this. The second of the above standpoints is not yet satisfactorily mediated with the notion of fixed and constant types of any sort, and mechanism stops short at consciousness. To secure the unique culture-power of the first and last of the traditions of philosophy to students of science, and of the second to students of general history and the humanities, is the chief duty, and to aid in mediating the now and higher unity now impending between the three is, in my opinion, the chief task, of the psychologist to-day. If there was ever a time when the student and teacher of religion needed to ponder these problems, to be fit for his work amidst the light and heat of popular interest and discussion these large adjustments are now exciting, it is to-day. It is the function, not of psychology, but of revelation only, to give absolute truth; but we must not forget in our land, where the very depth and strength of religious instincts makes us too satisfied with narrow and inadequate mental expressions of them, that the first step towards securing an adequate theoretic training of those sentiments, in which religion and morality have their common root, is to rescue the higher mythopœic faculties from the present degradation to which prejudice and crass theories have brought them. That deeper psychologic insights, in directions to which attention in this field is already turning, are to effect a complete atonement between modern culture and religious sentiments and verities is now becoming more and more apparent. The development of these insights will gravely affect the future of religion.

In fine, I cannot agree with John Stuart Mill that universities exist in order that philosophy may be kept alive, unless we define it, with Zeller, as the university itself, and not merely the philosophical faculty, so organized that each department shall be brought into closest and most fruitful reciprocity with that nearest allied to [p. 135] it. That it is a science of sciences, organizing the minto[*sic*] a hegemony or using them as its alphabet, that it must profess the universe in the sense of either Comte, Humboldt, Hegel, or Spencer, that it is nothing if not all, comparatively few would now care to maintain. Suggestive as some of the connections of thought in all the great systems have been, fascinating as is the grouping of large departments of knowledge as a refreshment from specialization that makes even a learned society often a babel where workers do not understand each other's terminology, and useful as it is for dividing the field of anthropological research, for educational curricula and the organization of scientific and other academies, psychology is content with the more definite field of being to the other disciplines of philosophy, and even ultimately to the humanities in general, what mathematics is to the more exact sciences, having its place among them wherever it can formulate fundamental relations more precisely, objectively, and in a way more surely and universally verifiable by others.

Most of the great philosophers lived very close to the practical needs of the masses of men about them. Their spirit will best animate us if we strive, however humbly, to do for our land and day what they did for theirs. The soil of our present American life will yield as choice a philosophic vintage as any other if we have the wit to cultivate it aright. Though very different in form from all past philosophies, it will be no less satisfying and seemingly final for us then than they were in their day at their best. If we could gather into it all the wisdom that lies about us scattered and ineffective in many minds till it really express the total life of our people, it will, more nearly than any other has done, express the life of the race, and be the long-hoped-for, long-delayed science of man.

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[Conclusion in the next Number.]

[p. 239]

II.

The field and its immediate contiguities which I have thus tried to outline is that within which advanced university courses in psychology should be laid out. No individual mind can master all its details, and there is room for more and more specialization within it, but no university lecture curriculum should omit a survey of all these larger topics. It is a field peculiarly full of promise, not only of new discoveries, but of perhaps still more important and inevitable restatements of old truth, and also a field in which investments of time and labor are at last as sure of quick returns in the way of positions and professional excellence as any. Leaving this, we must now ask what preparatory collegiate training should lead up to these higher studies. True philosophy is the most serious business of manhood, and to fit it to the slowly ripening faculties of our collegiate youth requires a peculiar wisdom quite distinct from knowledge of the subject. Our best young men are but children here, in a sense which can hardly be claimed in other studies : so that the need of the arts of adaptation, and the dangers of too rigorous adherence to the logical methods which the maturer expert mind prefers, are perhaps nowhere greater. He who would prescribe effectually for the disease of self-ignorance at an age when young men are most sincere, yet most apt to be mistaken, must be rather a parent than a doctor. He must distinguish between problems and certainties, and have the pedagogic heroism to prefer homely, old-fashioned, commonplace truths to the latest discoveries or his own newest insights. Adaptation rather than systematic completion should be his cue. Can we not see why Plato could have become so wise in reserves as to be reluctant to

write out his deeper penetrations lest they harm those for whom they were not adapted? Can we not catch the educational motive of some of his myths and of the distinction between acroamatic and exoteric, and may we not even wonder whether, after all, such events as the royal rescript addressed to Kant, the expulsion of Wolff from Halle, and even the prosecution of Socrates for corrupting the Athenian youth, do not indicate that the various orthodoxies, culminating as they often seem to do in what is thought best for youth rather than in that accepted as final by educated maturity, had detected a real if slight defect in their [p. 240] method and self-control ? It is more and more evident that Plato, at least, in whom preeminently among all men the philosophic and the educational spirit are harmoniously blended, sought to make philosophy a means of moral regeneration. He seems to assume, as has been well said, that to approach philosophy properly the novitiate must first regulate his life and become an enthusiast for virtue before he can truly love wisdom. The concepts in which he "ultimates" himself have rare *parousia* in history; somewhat, perhaps, as the swords too heavy or dangerous for common men were put beyond their power, to await a Theseus or Siegmund, who shall have, with the power to resume them, the virtue and wisdom to use them aright. A very fundamental need in education is to arouse some sense for ideality at that period of life when the animal nature is at its strongest and best. Truth then needs to come as an enthusiasm and from beyond the experience of the individual, as a counterpoise to passion, preëmpting the free, unstable psychic energy so abundantly disengaged during later adolescent years, and preforming and preserving it as the precious raw material of life. This whole period is one of dis-ease, of strain and tension between the instructions of childhood and the new faculties and desires which connect us to the race. There is then a certain natural precocity, a kind of delicious mysticism, anticipating the realities of life from afar, the free expressions of which are among the best things in literature, and which it is one of the most sacred offices of the teacher of philosophy to keep alive against the sterilizing tendencies of indifference, nil-admiration, and practical, as distinct from theoretical, materialism of thought. However romantic such idealism, it must be kept practical and life-preserving; it should open and not close the mind, and should anticipate an attainable experience and not lead beyond it. Its ideals, however exalted, should have the true philosophic sanity and virtue of being bent chiefly to the establishment of good mental and moral habits, or, in apt Hegelian phrase, however much estrangement and self-alienation they at first occasion, there should be no unatonable residuum at last. The energy of the instinct of idealization must not be misdirected or overdone ; it must not lead men off the proper basis of their own true nature, still less counter to it. Because philosophy is sometimes no truer to literal fact than are the parables of Jesus, there is a saturation point, which there is danger of passing if all that is taught be not in the most sympathetic relation with that nine tenths of life which is so deeply stirred at this age, but which cannot and should not be fully brought into the narrow field of youthful consciousness. [p. 241]

All this is very clear from the study I have lately made of the written answers of between three and four hundred seniors in six of our largest colleges to a series of questions respecting their philosophic interests, to be later reported on in full. Only one regretted in any degree the time spent on it. Half a dozen elected philosophy, or some branch of it, "so they could talk intelligently about it in society, without calling Democritus a sophist, or Cicero a contemporary of Kant;" "as one studies literature as part of a liberal education." A dozen more sought or found help toward their profession, as "aid in understanding insanity;" "power to persuade men ; " "help to faith for preaching;" " arguments to refute Spencer's agnosticism, materialism, etc." A few others found in it an aid to concentration, or "to increased analytic power; " help in understanding scientific problems;" "power to work easier;" to "make the best use of body and brain;" "ethical support to be a truer man;" a sense of "growth and expansion;" "escape from prejudice;" "tact to deal with men." Others found help about special problems that had puzzled them, more frequently evolution, theism, the Bible, the relation of men to animals, heredity, etc. More than four fifths of all, however, specified chiefly aid through what are now unmistakably recognized as adolescent crises and readjustments. They begin to "feel that an has two" and indeed "many sides;" they "realize an all-sided curiosity;" had dreamily but persistently "pondered" on perhaps such single questions as: "What is space," "especially if infinite ?" "Why did the world exist?" "Who and what am I?" Why am I "I and no one else"? "What should I do, be, know?" They had "doubted nothing and now suddenly doubted all things," and found they were "not exactly themselves;" were moving about in a world not realized. What is the greatest

happiness? "Are we free? and if so, how should we use our freedom?" What is the "ground of belief"? "Is common sense, after all, the best guide?" and, Are private "virtue and sacrifice rewarded"? Such are the questions in their terms that these young men ponder, as we have perhaps all done, and perhaps forgotten as the world grew familiar to us. Nearly a score of half-morbid souls found or affected great distress at the deep unsettlement, and seek only peace of mind and surcease from such endless questionings and introspection, feeling a nervous horror either of some nameless "abyss of mental disaster," or from finding out that they actually agree at heart with some disapproved system. In a few extreme cases frequent changes of view had destroyed faith in their own mental [p. 242] power and in the stability of all ideal truth, or premature reading and forced teaching or thinking gave ample illustrations of the dangers of a very wide mental horizon for a feeble intellect, or of introducing immature minds to the great perennial controversies in the field of thought, because teachers forget that there are problems it is simply immoral for individual minds to open and that there is a mental indigestion that hurts the brain as truly as dyspepsia does the walls of the stomach. A few maturer minds were emerging happily and healthily from this prolong apprenticeship to life, and express themselves as having "obtained blessedness of an individual mental attitude," or "reached a few mild postulates" that "fit their constitution;" or having been "long at sea and now landed and in possession of a small spot of earth to till;" of having "studied and now being ready to produce, if but little;" of having found that "intellect is not all," and "cannot give the lie to conscience" or our deeper instincts; of having realized that what has troubled them has also seemed insoluble to all men; of beginning to realize a unitary mental world where knowledge once isolated is classed and utilized, old views confirmed, widened, and others dropped off; and of having realized that the revelations of life -- the feeling of love, death, paternity, etc. -- are, after all, the chief sources of all philosophy.

This long experience is integral to the nature of youth and is favored by collegiate leisure and retirement from competition and the necessity of production. College journals often exhibit its expression, though almost always covered by some kind of semi-affectation. As they struggle up for expression, the constitute some of the very best things in literature, and have strange power, if not too early extinguished by the pressure of facts, to keep life green, fresh in a good sense, and growing to the end. They are the springs of philosophic self-consciousness and ideality in general, of reverence, dependence, adoration, in which religion and morality have a common root. When the ideas begin to shoot they are often toyed with. The sudden sense of boundless freedom is like emancipation to the negro. The sutures and fontanelles of the brain open in vulnerable spots for skepticism and error, and really good minds often pass through phases of romance and sentimental musings before reaching a procreant maturity which at last nothing can overwhelm.

Now certain phases of philosophic studies -- and especially of the so-called theory of knowledge, in which so many young minds are now floundering, like sophism and scholasticism in their day, [p. 243] the educational value and function of which it so much resembles -- are peculiarly adapted to deepen and prolong this adolescent ferment and increase mental self-consciousness, if not introspection, and to aggravate instead of to moderate the natural fever of eclaircissement. For those who need very radical readjustment and have the strength of mind to bear its long strain to a happy end without arrest in some incomplete stage, this is well. It is nature's way of regeneration. The danger is that such young men will make a premature "surrender to the ideal" so unconditionally that the logical faculties will be divorced from reality, that consistency will be more thought of than objective truth, and that, as occasionally happens, they will become infected with the titanic heaven-storming rage of absolute idealism and reason their way up and down the universe with all the abandon of the *scholares vagantes*, but without acquiring their hard-earned experience. Healthier young men, on the other hand, do not have or need any profound experience in philosophic skepticism. To be desperately agnostic, pessimistic, materialistic, is impossible to normal youth. God is conceived as a rather more naive and less self-conscious being, less dependent for his existence to faith on the accuracy with which the stock proofs are kept at concert pitch, etched into the brain with the strongest logical mordants that the most stalwart skeptic-baiters can devise. The chief dangers of this period are the dwarfing of some parts of our nature at the expense of or along with the great if not too rapid growth of other parts, especially favored by every divorce between intellect, heart, and will, and by every excessive concentration or premature specialization. What muscular

areas or physical functions (on the integrity of all of which emotional sanity is so dependent) are in danger of depletion in the daily life of the student? is there any one group of brain cells that is gradually falling into disuse? -- these, at bottom, ethical questions are those which the elementary teacher of philosophy should never forget, for no university is truly universal that ignores large sections of human nature or cultivates it only in spots. By personal inquiry and correspondence, and especially by the aid of the National Bureau of Education, a conspectus of the methods and books in this department of more than three hundred of our colleges is being prepared, from which it is already manifest that there is far less agreement than formerly. Some begin with inductive or oftener deductive logic; others with the general history of philosophy, others with Plato, Aristotle, Locke and Berkeley, Kant and his successors, or in a few cases with some contemporary [p. 244] writer; others prefer to begin with an ethical outline, the philosophy of the state or society ; others with natural theology; others with a somewhat ontologic metaphysics of first principles; others with the philosophy of religion; a few with physiological psychology ; while one advises beginning with something striking and piquant, like ultra pessimism, materialism, or authors like Mandeville or even Max Stirner. Much may be said in favor of nearly all of those, and perhaps of other beginnings. Most have certain plain advantages, but I think an older and once more general way is on the whole better. Most of us younger teachers have yet much to learn from those venerable men who founded not only the philosophic but so many other of our academic traditions, now, alas, passing away like a species destined for extinction, with the paternal system of college government. These men, generally presidents of the institutions in which they taught, conducting its discipline, gathering about them a faculty sympathetic with their own views of ultimate truth if not in some cases preparing the wav for it, sometimes began to instruct with systems more elaborate and theological than current fashions favor, and sometimes with almost none; but discussions with successive classes of men whose choice of a vocation as well as character and creed were often at stake slowly gave their convictions an earnestness, and at the same time an affinity and close and intimate reciprocity with student interests, ideals, aims, caused them to cease indoctrination alone, and made them true *maieutic* educators, subordinating all as means for enriching the minds, warming and elevating the hearts, steadying and strengthening the virtue and piety of their pupils. They thus became mainly teachers of ethics, or rather of practical morality, while they did not neglect the philosophic need of the religious sentiment, but learned how best to draw upon it for interest, to keep it warm by unselfish sentiments and bright by close contact with current literature and science, feeling it more important that opinion in this department should square with the deepest instincts of the soul than with the traditions of the schools of thought. Shall these great teachers be allowed to take their secret with them, when already in many of our colleges it is a pressing problem to find men of simple, quiet dignity; and poise of character, earnest in spirit and moral purpose, of solid even if of less extensive acquirements, without hyper-subtlety or pedantic or morbid self-consciousness, to introduce undergraduates to ethico-philosophic studies; men who shall gain and keep access to and if needful guide their hearts and wills as well as their intelligences, [p. 245] -- something perhaps as an ideal parent or father confessor might do,-- and all of course without rudely unsettling the religious convictions and habits of mind, whatever these may be, on the stability of which character itself is so often dependent?

More specifically, every elementary course in philosophy, to which proverbs, maxims myths, and folk-lore might lead up as a pro-pedeutic outside of the curriculum, should include some inductive and deductive logic. This gives the mind a method to strike out in the sea of ideas, to learn how ideas feel, to handle them, to eliminate contradictions. The drill in the *Barbara Celarent* may be mechanical for a few weeks, with considerable stress on common fallacies. A professor learned in the dialectic or the mathematical logic must check his wisdom in mid-volley, but may turn the natural contentiousness of the youthful human mind to account in occasional forensics with an eye to the syllogistic side of argumentation. Again, every young man needs a little psychology. He must know the current facts and terms in this literature about the senses, the will, feelings attention, memory, association, apperception, etc., with copious historical allusions, and especially with their innumerable and very practical applications to mental and physical hygiene but without much of what is called physiological psychology. Thirdly, an undergraduate course should require ethics as of most importance. Beginners need not ponder too deeply with Mr. Bradley the dialectic nature of the good; nor strive to grasp an ultimate good that can only be defined by negation, with Professor Green; nor assume too

rigorously that we must always act rationally to act morally with Professor Sedgwick; nor see their way, at the outset, to identifying practical morality with the end of the world with Janet,-- important as all these matters are, later;-- but our effort should be to get ethics out of the subtleties to which it is ever tending in text-books and class-rooms,-- to shed over it a larger clearer light of every-day experience. The world now asks of college graduates of both sexes not so much their rank on the list, their college honors or accomplishments, important as these are but whether they are still fresh, sane, young at heart and in body; whether they have the courage, buoyancy, naïveté, which are among the most direct products of good physical health, and without which no man can have a good and full psychic development unseared by sickly or precocious emotional experience. Very many young men have some perhaps single and very trivial habit which hey and perhaps their intimates hardly recognize, which is liable to stand in the way of deserved success; and I [p. 246] have seen a number of able young men go to the bad in college who a single word of timely admonition, if wise and tactful, would have saved. Such a kindly mentor, if not a sharp moral precisian on he one hand, nor a grandmotherly being who thinks a student can do no wrong on the other, might work his way to influence among students, not only on hygienic habits, but on associations friendships, ideals, callings in life, choice of electives, or do great service by teaching young men how to study in their rooms where bad methods cause such waste;-- whom they revere and like, and to whom students should feel they could go at any time and be sure of welcome, when in want of adult confidence. Again, while intellectual operations are more or less concentrated on the cerebro-spinal system and the senses, the emotions are connected with the whole body, perhaps through the sympathetic system possibly in a way admitting some general validity to the psycho-physic concepts which Delitzsch extracts as the somatology of the writers of the Old Testament. However this may be, there is a most important sense in which every defect of physical development or health leaves its mark on the emotional nature, and perhaps conversely. While the intellect may work correctly, with much physical infirmity, a single feeble part of the body cannot be without some ill effect on the sanity of sentiment, restricting the full and healthy flow of emotional life which nature seems to offer to no class of young men more certainly than to those entering upon college life. Not only during rapid growth, but for years after, the vital processes are directed to the body at large, the brain and mind are somewhat sluggish and retarded. If these are crowded, *e.g.*, some other part of the body is sure to be more or less starved and dwarfed,-- accident or hereditary weakness determining from which organ or tissue nutrition should be diverted. Chest, stature, stomach, muscles teeth, spinal cord, or brain texture may suffer to collapse at the very beginning of senescence. Most men live in and by their feelings; the intellect is individual, accidental, occasional, while the heart is the inner divinity which deals with wholes. It is one of the chief means through which ancestral experience is organically transmitted, and is the only truly common language between genius and the lout, between the old and the young. Very many insanities begin, in their pre-asylum stages, not in illusions or any distinctively mental disorders, but in emotional perversities or instabilities. Thus the doctor, the sanitary officer, advises for every few students, as at , faculty visitation, as formerly in the American college; the professors of physical culture and of ethics need [p. 247] to coöperate to help solve problems in vital economy which each man, later in life, has to solve for himself, and to make men great with the hands and feet; though we need not say, with Pindar, that no others are great. These statements are now almost commonplace in psychiatric literature.

Is it not plain that the average adolescent of to-day needs a basis for his morality in belief; that youth are liable to be ethically enfeebled without some hypothesis of the larger relations of life? There is no youthful heroism or self-sacrifice without devotion to something outside of and above self. Even crass, hastily-chosen postulates often bear a great and long strain of duties; and to unsettle them, under the delusion that a religious breakdown is the beginning of philosophic wisdom, is bad ethics and worse pedagogy, and involves moral loss. The sacred records which have furnished this basis in the past, and by which a spirit of consecration has been given to life, are -- to say no more here -- of the very highest pedagogic value of all that has come down to us from the many-voiced past. The great teachers of religion knew what was in men, became in a noble sense all things to all men; and their secret is not so much a finished, final, inside view of things, admitting of no change or growth, as the educational secret of consummate adaptation to men as they found them, and of giving truth in such a form that it naturally expands with the growth of the mind and opens ever new and

deeper meanings. This whole field of psychology is connected in the most vital way with the future of religious belief in our land, and cannot longer be neglected in theological courses with impunity. The religious mind was never so susceptible to so wide a range of philosophic truth as now. It was an instinct, at bottom religious, that gave birth to philosophy, and which now inclines most young men to it in our colleges; and it can and must do for the sanity and the ripening of this instinct to full manly maturity what nothing else in the way of intellectual culture can ever do. The new psychology, which brings simply a new method and a new standpoint to philosophy, is I believe Christian to its root and centre ; and its final mission in the world is not merely to trace petty harmonies and small adjustments between science and religion, but to flood and transfuse the new and vaster conceptions of the universe and of man's place in it -- now slowly taking form, and giving to reason a new cosmos, and involving momentous and far-reaching practical and social consequences -- with the old Scriptural sense of unity, rationality, and love beneath and above all, with all its wide consequences.[p. 243] The Bible is being slowly re-revealed as man's great text-book in psychology,-- dealing with him as a whole, his body, mind, and will, in all the larger relations to nature, society,-- which has been so misappreciated simply because it is so deeply divine. That something may be done here to aid this development is my strongest hope and belief.

I have spoken with a frankness which, till lately, would have been almost like offering one's self as a corpus vile for vivisection, and may only add that, while the problem of undergraduate education in philosophy has been better solved in this country than ever before or elsewhere, and while instruction in the history of philosophy which should follow such studies is also being happily, if all too slowly, wrought out in a number of our best institutions, the still more advanced course I have tried briefly to characterize as historical psychology, to which all philosophical courses lead up in a university, has not yet found much representation in our country. Of the educational side of the work of this department,-- which is simply a field of applied psychology,-- and of its relations to advanced work in logic and ethics, I shall speak later. That the work of the department I have described will appeal irresistibly to young men, provided only it can have a representative here at all adequate, no one well read in the history of universities and their studies and dominant interests can doubt.

G. Stanley Hall.

Footnotes

[1] An introductory lecture, delivered October 6.

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