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THE AMERICAN PSYCHOLOGICAL ASSOCIATION.

ONE of the most significant meetings that occurred during the Christmas holidays was that of the American Psychological Association in Philadelphia on Dec. 27 and 28. This was the first regular meeting of this body, a temporary organization having been effected in June last. The coming together of psychologists is significant not alone of the rapid strides which this science has recently been making, but particularly of the unity of method and subject matter which the introduction of scientific modes of observation into this controverted field has made possible. This association of psychologists is composed almost exclusively of specialists who are studying the nature of mental processes by the help of ingeniously devised apparatus, are propounding new problems and adopting new methods to their solution, and, in brief, are proceeding with that painstaking vigor and caution characteristic of all phases of modern science. For these reasons an account of their proceedings necessarily becomes somewhat technical; but this moderate element of technicality is itself a welcome relief from that over-popularization and almost sensational publicity in which a line of activity too often confused with psychology has indulged.

The meeting was called to order by the president of the association, President G. Stanley Hall, of Clark University, and the reading of papers began with a paper by Professor Catell, of Columbia College, on "Errors of Observation in Physics and in Psychology." Professor Catell criticised that line of psychophysical observation in which the liability to degree of error was taken as a standard of the sensibility for differences. He considered that the entire subject needed re-investigation, with a complete separation of these two points. He also regarded that recent experiments of his own and Professor Fullerton tended to show that the errors of observation do not fall under the law as usually stated (Weber's law) but approximate the law which the distribution of errors demanded.

A very interesting problem was presented by Dr. Witmer, of the University of Pennsylvania, in an account of a research upon the æsthetics of visual form. Dr. Witmer attempted to determine, by a large number of experiments, such questions as, What are the most pleasing forms? What proportions of the division of a line, and what proportions of the relations of the height to the breadth of a rectangle are the most pleasing? and the like. The results of these preferences were interpreted by reference to the general outline of the field of vision, of which the figures form a part. He showed conclusively that the former views of the conditions of such æsthetic judgments were inadequate, and that this neglected factor of the position of the figure with reference to the edges of the field of vision was a most important one. The experiments will be continued and give promise of contributing some measure of system and order to a field usually regarded as determined by caprice.

President Hall presented a brief outline of the history and prospects of experimental psychology in America, tracing the beginnings of this study from the first laboratory founded at Johns Hopkins University some eight years ago, up to the present time, when there are as many or more psychological laboratories established in this country than in all Europe. The rapid dissemination of interest in psychological studies and the material provisions for its future development were ably presented, and various measures of credit judiciously assigned. The publication of such a review of the purposes, methods and results of the new psychology, as President Hall outlined, should certainly contribute much towards a more general understanding of what psychology and psychologists are doing and—equally important—not doing.

Professor Jastrow, of the University of Wisconsin, gave an account of the exhibit of experimental psychology, which is to be made at the World's Fair. Here, for the first time, the attempt will be made to gather together various types of apparatus which are used in psychological research, to maintain in running order a working laboratory, in which simple tests of the senses, powers of judgment, the times of mental processes, the peculiarities of association, the limits of memory, of fatigue, and the like, may be made and recorded; and to exhibit in some measure the results of statistical and other forms of research. Considerable expenditure, the co-operation of colleges, of individual psychologists and of makers of apparatus have been secured for the successful completion of this large task. It is hoped that this somewhat comprehensive exhibit of the method and aims of this new science may aid in disseminating a truer and more appreciative view of the theoretical and practical value of this line of research than has yet been accomplished.

Professor Münsterberg, of Harvard University, upon the request of the president, addressed the association, speaking of the problems that were engaging his attention at his laboratory at Cambridge. No less than fifteen subjects of investigation are here in progress, and the nature of some of these Professor Münsterberg described in a very interesting manner. The impetus to work in this direction, which his acceptance of the chair at Harvard has given, has already made itself evident, and, before the year is over, many important results will undoubtedly be issued from his laboratory. The subjects under investigation covered a wide range, from the determination of the methods of localizing sounds in space, and a new method of determining when differences of sensation may be regarded as equal, to complicated experiments upon the nature of association, of changes in mental condition, of complex forms of reaction, and the like.

Dr. Sanford reported some of the minor studies which are in part completed and in part in progress at the laboratory of Clark University. One of these studies gave an account of the fluctuations in mental power at different portions of the day, as determined by the capacity to remember a series of arbitrary impressions. Another dealt with the frequency and character of dreams of subjects who every night at once recorded their dreams upon awakening from them. The great frequency of dreams, the fact that they are concentrated in the early hours of the morning, that they are so largely based upon actual experiences, and that recent events contribute much to their content,—these and other points clearly appeared in the analysis which this material furnished.

Professor Bryan, of the University of Indiana, presented two papers, in one of which he gave an account of experiments establishing the effect of the intensity of the stimulus upon the reaction time; and, in the other, described some tests which had been made in schools of Springfield, Mass. These tests show the development of motor power in children at different ages, and brought out many unexpected and significant relations.

Papers were also read by Dr. Nichols, of Harvard College, presenting some novel experiments upon illusions of rotation and upon the sense of pain; by Professor Pace of the Catholic University of Washington, describing some observations upon the power of judging the thickness of surfaces held between the thumb and forefinger; by Dr. Witmer, describing the results of a few simple reaction times, taken upon a great variety of unpractised subjects; other papers of a somewhat philosophical nature were presented by Dr. Chamberlain, on the "Relation of Psy-

chology to Anthropology," and Dr. Aikens on an "Analysis of Cause."

The meeting adjourned, to meet next December, at Columbia, N. Y. The officers of the association are: G. Stanley Hall, president; Professor Ladd of Yale University, vice-president; and Professor Jastrow of the University of Wisconsin, secretary.

ASSOCIATION OF AMERICAN ANATOMISTS.[1]

The following persons were elected to membership: —Herbert S. Birkett, M.D., Montreal, Canada, Demonstrator of Surgery, McGill University; Tracy Earl Clark, B.S., Clinton Liberal Institute, Ft. Plain, N. Y.; J. Milton Greenman, Assistant Director Wistar Institute of Anatomy, University of Pennsylvania; James W. Hartigan, M.D., Morgantown, W. Va., Professor of Biology, University of West Virginia; Geo. S. Huntington, M.D., New York City, Professor of Anatomy, College of Physicians and Surgeons; Peter J. McCourt, M.D., New York City; Middleton Michel, M.D., Charleston, S. C., Professor of Physiology, Medical College of South Carolina; Wm. B. Scott, Princeton, N. J., Professor of Geology and Paleontology; Wm. Anderson, F.R.C.S., etc., London, England, Demonstrator of Anatomy, St. Thomas's Hospital College (honorary); C. S. Minot, S.D., Harvard Medical School, Professor of Histology and Embryology; C. A. Hamann, M.D., Assistant Demonstrator of Anatomy, University of Pennsylvania.

The executive committee, through the secretary, reported that the circular in regard to information concerning the Negro race was nearly ready.

The following papers were then read: 1. Crania of the Cetacea. 2. The human lower jaw, Dr. Harrison Allen, University of Pennsylvania. These two papers were illustrated by specimens and discussed by Professor Herrick and by Professor Geo. Macloskie of Princeton University. 3. History of the development of bone-tissue. Illustrated by microscopic slides. Dr. Carl Heitzmann, New York City. Discussed by Professors Macloskie and William Libbey, Jr., of Princeton University.

The following quotation is an extract from Dr. Allen's presidential address: "It is now four years since the Association of American Anatomists was founded, with a list of fifteen members. Many were the objections raised when it was proposed to organized a new society. Eminent professors declared that it was not needed; others, while sympathizing with its objects, were convinced that the list of members would be so small that it would be a difficult matter to fill the necessary offices. The fact that an active membership exists of ninety-four persons, representing twenty-two States, the District of Columbia and the United States army, sufficiently meets both the above-mentioned objections. It tells us unmistakably that the society is needed, and that not only are the offices filled, but that the association is recognized as a devoted band of students whose activity compares favorably with that of other scientific organizations.

"But the work thus far accomplished is but the harbinger of what it is hoped may be undertaken. An attempt at co-operation between the American Anatomists is to be brought before you at this meeting. The executive committee will present a plan by which observations on the anatomy of the Negro shall be entered upon. It is earnestly hoped that every teacher and demonstrator of anatomy in the country, whether a member of this society or not, will assist its committee in accumulating observations on this class of subjects."

4. An anomalous development of the human sternum. Specimen and remarks by Dr. D. S. Lamb, Army Medical Museum, Washington, D. C. Discussed by Dr. Dwight. 5. Discovery of an ossified thyroid cartilage and a supposed rudimentary clavicle in an Artiodactyl. Professor Wm. B. Scott, Princeton University. Specimen exhibited. Discussed by Professor Cope and Dr. Allen. 6. Observations on the psoas parvus and pyramidalis. A study of variations. Dr. Thomas Dwight, Harvard Medical School. 7. Significance of percentages in reversions in human anatomy. Professor H. F. Osborn, Columbia College, New York City. Discussed by Professor Cope and Drs. Dwight and Lamb.

3 P.M. session resumed. The following papers were read: 8. Histogenesis in the brain, and its bearings on development and decline. Professor C. L. Herrick, Dennison College, Granville, Ohio. Discussed by Drs. Heitzmann and Piersol. 9. The metapore or foramen of Magendie, with photographs. Professor B. G. Wilder, Cornell University. In the absence of Professor Wilder, the paper was read by Mr. Clark. Discussed by Professor Herrick. 10. Neuromerism and the cranial nerves of Ophidia. Professor Herrick. 11. The insula of the pig. With specimens. Discussed by Drs. Allen and Dwight. 12. Note on diagrams of the spinal cord. Dr. J. T. Duncan, Toronto, Canada. Read by the secretary, and referred to the Committee on Nomenclature. 13. Duration of motion of human spermatozoa. Professor Geo. Piersol, University of Pennsylvania. Discussed by Drs. Spitzka and Heitzmann.

Thursday, Dec. 29, 1892. The report of the Committee on Nomenclature, Dr. Wilder, secretary, was presented. The reading of the report was dispensed with, copies having been placed in the hands of the members present.

The following papers were read: 14. The innervation of the organ of Corti. Howard Ayers, Ph.D., Curator of the Lake Laboratory, Milwaukee, Wis. Microscopical slides with remarks. 15. The posterior surface of the liver, as described by Vesalius. Dr. F. H. Gerrish, Bowdoin College, Maine. Discussed by Drs. Dwight, Allen, and Heitzmann. 16. Embryos of bats. With specimen and plates. Dr. Allen. Discussed by Professors Cope and C. S. Minot. 17. Meckel's diverticulum. Dr. D. S. Lamb, Army Medical Museum, Washington. Discussed by Drs. Dwight and Minot. 18. Delimitation of abdominal regions. Dr. E. A. Balloch, Howard University, Washington. Read by the secretary. 19. The need of agreement in the limits of the adbominal regions. Dr. Gerrish. The last two papers were discussed together by Drs. Dwight, Piersol, Kemp, Heitzmann, and Lamb. It was decided that, with the consent of the authors, copies of these papers be sent to the committee on this subject appointed by the Anatomical Society of Great Britain and Ireland; and also to the committee of the German Anatomical Society. 20. Physical characteristics of the Kootenay Indians of South Eastern British Columbia. Professor Alex. F. Chamberlain, Clark University, Worcester, Mass. Read by title. 21. Series of thirty-five natural-size photographs of sections of human brain, with brief remarks. Dr. I. S. Haynes, University of New York.

[1] Fifth annual session, at Princeton, N. J., December 27, 1892. Dr. Harrison Allen, of Philadelphia, president; Dr. D. S. Lamb, U. S. A., secretary.

NOTES ON THE OCCURRENCE OF RUBELLITE AND LEPIDOLITE IN SOUTHERN CALIFORNIA.

BY HAROLD W. FAIRBANKS, BERKELEY, CAL.

THE work of the California State Mining Bureau has recently brought into notice a very interesting association of minerals in San Diego County, California. The most important of these are lepidolite and rubellite. The former remarkable for the great quantity and purity in which it occurs, and the latter for its exquisitely radiated crystal aggregates. The ruby-tinted tourmaline imbedded in the pale lilac-colored mica presents a picture of beauty rarely equaled in the mineral kingdom. Before giving a detailed description of the occurrence of these minerals, a few words on the general geology of the district may not be out of place.

San Diego, the southern county of the State, is dominated by one main system of mountains known as the Peninsula Range. This consists of a confused mass of mountains and valleys rising gradually from the coast to the summit, forty miles inland, from which the descent is quite abrupt to the Colorado Desert. The average height of the watershed is about four thousand feet, but toward the northern boundary of the county, Mount San Jacinto reaches an altitude of about ten thousand feet. This Peninsula Range consists chiefly of granite which often takes on a dioritic facies. Dark basic diorite and rocks of the norite type occur as intrusions of considerable magnitude. Quartzite, mica schist, and thin bedded gneisses form long, nar-