

of local developments in shaping customs and beliefs and giving them their distinctive characteristics. What I object to on the part of ethnologists is not the use of psychological arguments, which are necessarily at the root of the whole matter, but the resort to an effete system of psychology which is utterly repudiated by practically all real psychologists, except Wundt and his disciples.

When a small band of immigrants, intent upon exploiting the mineral wealth, forces its way into a barbarous country, and, in virtue of its superiority of weapons or of skill and knowledge, is able to dominate the local people, and compel it to work for them, the stamp of the alien civilization, its practises, its customs and beliefs, can be imprinted upon a large servile population. Nor must it be assumed that the new learning is adopted wholly and without change. For every people has its own cherished beliefs and customs which no power can wholly eradicate. What happens in such cases is that the new practises are blended with the old; and in course of time, as the mixture becomes more and more intimately rationalized, a new and distinctive cultural compound is developed, which can not strictly be regarded either as the indigenous or the introduced culture, but a new structure which has been built up by the spirit of the local population out of the new and the old materials. Thus even when the same elements of a new culture are introduced into a series of localities the resultant civilizations are not identical; but each takes on its distinctive characters, which are determined partly by the circumstances under which the new leaven has been impressed, and partly by the nature of the pre-existing culture, and possibly to some extent by the character and abilities of the people of the country. For a people's aptitude and inclination to adopt alien practises clearly counts for a good deal in this process. Essentially the same external influences were brought to bear, in varying ways and in different degrees, upon India, Indonesia, Australia, eastern Asia, Oceania and America; but how strikingly different were the results in each of these domains!

The subject, however, is much too vast and intricate profitably to be discussed in a letter. I have already collected enough material for several large volumes on the part played by the "working of the human mind" in the history of civilization. All that I aim at achieving at present is to persuade ethnologists to do what is constantly being done in every *true* science, namely, impartially to examine the foundations upon which its theory rests. If they will consent to do this I have no doubt as to the outcome.⁸

G. ELLIOT SMITH

THE UNIVERSITY OF MANCHESTER, ENG.

THE AMERICAN PHYSIOLOGICAL SOCIETY

THE American Physiological Society held its 29th annual meeting in association with the Federation of American Societies for Experimental Biology and the American Association for the Advancement of Science in New York City December 27, 28, 29 and 30. The meetings were all held at the Cornell Medical College buildings where convenient arrangements had been provided also for the other societies of the federation. One of the most pleasant features of the meeting was the arrangement for luncheon, which brought together the members of the different societies.

On December 28 the annual federation banquet was held at the Hotel McAlpin with a large attendance. A similar dinner was held at the Chemist Club December 29.

The new members elected to the society were:

William T. Bovie, Harvard Medical School, Boston.
William John Crozier, Bermuda Biological Station for Research, Agassiz Island, Bermuda.
Admont H. Clark, Johns Hopkins Medical School.
Frank A. Hartman, University of Toronto.
S. H. Hurwitz, Hooper Foundation, San Francisco.
R. W. Keeton, Northwestern University.
Edward C. Kendall, Mayo Clinic, Rochester, Minn.
Charles E. King, University of North Dakota.
Dean de Witt Lewis, Rush Medical College.
David I. Macht, Johns Hopkins Medical School.
Frank C. Mann, Mayo Clinic, Rochester, Minn.
Victor C. Myers, New York Post-graduate Hospital Medical School.
Oscar H. Plant, University of Pennsylvania.

⁸ I think it is only right that your readers should be informed that my article in *SCIENCE*, August 11, 1916, was written in May, 1915, and that by a careless mistake, the uncorrected stenographer's copy was sent to you.

W. C. Quinby, Harvard Medical School.
J. M. Rogoff, Western Reserve Medical School.
C. L. Von Hess, University of Chicago.
Rosaline Wulzen, University of California.

The program of scientific papers and demonstrations was as follows:

IN MEMORIAM

Isaac Ott, A.M., M.D., by Albert P. Brubaker.
Joseph Hoeing Kastle, Ph.D., by A. S. Loevenhart.

Allen M. Cleghorn, M.D., C.M., by Shepherd Ivory Franz.

Thomas Gregor Brodie, M.D., F.R.S., by A. B. Macallum.

"The Fate of Intravenously Injected Dextrose," by J. J. R. Macleod.

"The Diastatic Activity of the Blood in Diabetes," by V. C. Myers and J. A. Killian (by invitation).

"Observations Concerning Fat Feeding," by F. M. Allen (by invitation).

"The Cause of the Increased Heat Production following Pancreatotomy in the Dog," by J. R. Murlin.

"The Use of Cotton Seed as a Food," by Thomas B. Osborne and Lafayette B. Mendel.

"Primary Scrotal Syphilis of the Rabbit and its Utilization in Chemotherapeutic Experiments," by W. H. Brown and L. Pearce (with lantern demonstration).

"The Action of Some Optic Isomers on the Ureter," by D. I. Macht.

"The Influence of Certain Conditions on the Rate at which Epinephrin is Liberated from the Adrenals into the Blood," by G. N. Stewart and J. M. Rogoff (by invitation).

"The Blood Lipoids in Nephritis," by W. R. Bloor.

"Concerning the Lipoids of the Blood in Renal Conditions, with Special Reference to the Cholesterol Content," by Albert A. Epstein and Marcus A. Rothchild (by invitation).

"Observations of Acid Base Equilibrium in the Blood," by John Howland and W. McKim Marriott.

"The Inorganic Composition of Thoracic Duct Lymph," by A. B. Macallum. (Read by title.)

"The Movements of the Artery within the Compression Chamber During Indirect Estimations of the Blood Pressure," by Joseph Erlanger.

"The Time Relations of the Fundamental Heart Sounds," by Carl J. Wiggers and A. Dean, Jr. (by invitation).

"The Veno-pressor Mechanism," by Yandell Henderson.

"Further Observations on the Distribution of Blood in Shock," by H. C. Jackson and H. H. Janeway (by invitation). (Read by title.)

"The Effect of Pneumothorax in the Dog and Cat," by H. C. Jackson and C. J. Imperatori (by invitation).

"A Comparison of the Effects of Food and of Caffeine on Work in the Athlete and an Untrained Subject," by C. B. Root (by invitation) and H. Curl (by invitation). (Read by title.)

"Effects of Physical Training on Pulse and Blood Pressures During Activity and During Rest," by Percy M. Dawson.

"Some Electrical Phenomena of Animal Tissues," by Robert A. Gesell.

"Experiments on the Relation of Blood Pressure to Urine Formation," by A. N. Richards and O. H. Plant (by invitation).

"The Fate of Sulphophenolphthalein when Injected into the Animal Organism: Factors other than the Kidney Influencing its Retention," by E. C. Kendall (by invitation).

"Action of the Diuretics on the Denervated Kidney," by Wm. C. Quinby (by invitation).

"On the Movements of the Isolated Ureter of the Dog," by George B. Roth.

"The Stimulating Action of the Bromide Ion on Smooth Muscle," by T. K. Kruse (by invitation).

"The Physiology of the Chromatophores of Fishes—II. Responses to Alkaline Earths and to Certain Neutral Combinations of Electrolytes," by R. A. Spaeth.

"The Absorption of Fat in Depancreatized Dogs," by Joseph H. Pratt, C. W. McClure (by invitation) and Beth Vincent (by invitation).

"On the Toxemia of Intestinal Obstruction," by L. R. Dragstedt (by invitation), W. Burby (by invitation) and A. J. Carlson.

"The Visible Structure of Cell Protoplasm, and Death Changes," by Robert Chambers, Jr. (by invitation).

"The Effect of α -Amino Acids, Dipeptides and Peptones on the Growth of Cells in Vitro," by Clarence A. Neyman (by invitation) and Montrose E. Burrows (by invitation).

"Muscular Irritability," by C. C. Guthrie.

"Studies in Muscular Power and Fatigue," by A. H. Ryan and J. H. Agnew (by invitation).

"A Comparison of the Amount of Catalase in the Muscles of Active and Inactive Animals," by W. E. Burge. (Read by title.)

"A Study of the Total and Preformed Creatinin in Various Muscles of the Cat," by Ernest L. Scott and Adelaide Spohn (by invitation).

"The Cardio-skeletal Quotient," by W. L. Men-denhall.

"Hunger and Appetite in Fever," by A. J. Carlson, J. Mayer (by invitation) and J. R. Rupp (by invitation).

"The Influence of Temperature on the Gastric Hunger Contractions of Some of the Lower Animals," by T. L. Patterson.

"The Mechanism of the Regulation of the Intra-abdominal Pressure," by Helen C. Coombs (by invitation).

"Preliminary Report of Cardiogram and Blood Pressure Records, showing the Effect of Music," by Ida Henrietta Hyde. (Read by title.)

"Further Observations on the Existence of a Cerebral Heat Center," by Ernest Sachs and P. P. Green (by invitation).

"An Application of Boyle's Law and Avogadro's Hypothesis to the Oscillations of the Mercury Manometer," by Albert M. Bleile (by invitation).

"The Action of an Oxidizing Substance on the Catalase Value of the Blood," by Aaron Arkin.

"The Hydrolytic Products of Chitin," by S. Morgulis. (Read by title.)

"Water Vaporization in Health and Disease," by Eugene F. Du Bois and G. F. Soderstrom (by invitation).

"Some Considerations of the Isolated Bone Marrow," by Cecil K. Drinker, Henry A. Kreutzman (by invitation), and John R. Paul (by invitation).

"Some Physiological Disturbances Induced in Animals by Nitrobenzol Fumigation," by Melvin Dresbach and W. L. Chandler (by invitation).

"Physiological Effects of Ingestion of Ethyl Alcohol by Rectum, with Special Reference to the Gaseous Exchange," by T. M. Carpenter.

"On the Reflex Control of the Vagus Tonus," by F. T. Rogers (by invitation).

"An Instance of Apparent Anesthesia of a Solution," by E. N. Harvey.

"Labyrinthine Reactions in Kittens, with Demonstration," by A. L. Prince.

"Minimal Variations in Spinal Reflex Thresholds," by Eugene L. Porter.

"Possible Periodic Variations in the Knee Jerk in Women," by Jessie L. King.

"The Combination of Thrombin by the Antithrombin of the Blood Serum," by H. S. Gasser.

"The Transformation of the Plasma Clot," by George A. Baitzell. (Read by title.)

"Inhibitory Effects of Adrenalin upon the Sphincter of the Iris," by Don R. Joseph.

"Changes in the Percentage Composition of Muscle Protoplasm during Prolonged Fasting with Work," by C. W. Greene.

"Some Observations on the Conditions of Activity in the Adrenal Glands," by W. B. Cannon and H. F. Pierce (by invitation).

"Further Studies on the Effects of Adrenalin on Muscular Fatigue and Limb Circulation," by Chas. M. Gruber.

"Anti-Neuritic Substances from Egg Yolk," by H. Steenbock.

"Endermic Reactions," by J. D. Pilcher and T. Sollman.

"The Active Constituent of the Thyroid; Its Isolation, Chemical Properties, and Physiological Activity," by E. C. Kendall (with lantern demonstration).

"On the Mechanism of Blood Coagulation," by G. H. A. Clowes.

"The Perfusion of the Mammalian Medulla: The Effect of Carbon Dioxide and other Substances on the Respiratory and Cardiovascular Centers," by D. R. Hooker and D. W. Wilson.

"Recovery Experiments Following Removal of the His Auricular Node in the Dog's Heart," by J. A. E. Eyster and W. J. Meek.

"The Effects of Temperature Change on Rhythm in the Human Electromyogram," by Alexander Forbes and W. C. Rapleye (by invitation).

"The So-called Experimental Streptococcal Poliomyelitis," by C. G. Bull (by invitation) (with lantern demonstration).

"Experimental Studies in Poliomyelitis," by E. C. Rosenow and G. W. Wheeler (by invitation).

"Experimental Poliomyelitis in the Monkey," by E. C. Rosenow and E. B. Towne (by invitation).

"The Relation of the Velocity of the Pulse Wave to Blood Pressure," by Percy M. Dawson. (Read by title.)

"Does the Myelin Sheath Function as an Insulator Broken only at the Nodes of Ranvier?" by J. F. McClendon. (Read by title.)

"The Oxygen Pressure Necessary for Cellular Activity," by Montrose T. Burrows (by invitation). (Read by title.)

"The Cause of Cataract," by W. E. Burge. (Read by title.)

"The Attenuation of the Toxic Action of KSCN by Elevated Temperature," by R. A. Spaeth. (Read by title.)

"A Signal Magnet which Writes Either Upwards or Downwards," by W. Hale.

"Some New Apparatus," by D. E. Jackson.

"An Improved Lever for Frog's Heart and Muscle Strips," by A. H. Ryan.

"The Inhibitory Effect of Stimulation of the Central End of the Vagus Nerve upon the Contractions of an Active Expiratory Muscle in the Chicken," by A. L. Meyer (by invitation).

"Demonstration of a Gas-Analysis Apparatus," by Yandell Henderson.

"The Motion Picture as an Aid in Teaching Physiology," by J. A. E. Eyster and W. J. Meek.

"Pathoscope Films used to Illustrate Physiological Demonstrations to Students," by Alexander Forbes.

"Motor Phenomena of the Stomach and Cap as Observed Roentgenographically," by Gregory Cole (by invitation).

"Photographs Representing the Growth of Chickens Fed with Definite Mixtures of Food-stuffs under Laboratory Conditions which have heretofore not Led to Success," by Thomas B. Osborne and Lafayette B. Mendel.

"A Convenient Form of Non-Polarizable Electrode for Class Use," by Theodore Hough.

"Microscopic Demonstration of Absence of Chromatolytic Change in the Central Nervous System of the Woodchuck (*Marmota monax*)," by A. T. Rasmussen (by invitation) and J. A. Myers (by invitation).

"Glycogen in the Blood Vessels of the Liver," by G. Carl Huber and J. J. R. Macleod.

"A Method of Recording Fundamental Heart Sounds Directly from the Heart," by Carl J. Wiggers and A. Dean, Jr. (by invitation).

"Exhibit of Photographically Recording Apparatus for Studying the Dynamics of the Circulation," by Carl J. Wiggers.

The final joint meeting of Saturday afternoon proved to be of unusual interest, especially as regards a group of papers on the subject of poliomyelitis, or infantile paralysis. This discussion brought out the largest attendance of the entire scientific series of meetings.

The annual session adjourned with very kindly feelings of the membership for the local committee and the staff of the Cornell Medical College for the convenient and genial arrangements providing for the physical comforts of the session.

CHAS. W. GREENE,
Secretary

COLUMBIA, Mo.