CONTRIBUTIONS TO THE HISTORY OF PSYCHOLOGY - 1916-1921

By COLEMAN R. GRIFFITH (1922)

Classics in the History of Psychology

An internet resource developed by Christopher D. Green York University, Toronto, Ontario ISSN 1492-3173

(Return to *Classics* index)

CONTRIBUTIONS TO THE HISTORY OF PSYCHOLOGY -- 1916-1921

By COLEMAN R. GRIFFITH (1922)

University of Illinois

First published in *Psychological Bulletin*, 19, 411-428

Posted March 2000

[Classics Editor's Note: Footnotes are given in square brackets. References are given in round brackets.]

Contributions to the history of psychology since 1915 fall naturally into two groups. There are, on the one hand, the systematic and the experimental studies which have made the science six years older. There are, on the other hand, the historical and biographical notes and the large and searching retrospections which relate contemporary psychology to earlier stages in the development of the science. It s~ to an enumeration of these contributions that the present paper is devoted. We cannot, of course, comment in detail upon the character of contemporary psychology, for an historian, speaking of his own times is like the Hawaiian surf-rider who seek to judge the incoming tide from his experiences while riding a single wave; but it is possible to get a certnin amount of information about the current trend of a science by considering events of various kinds which reflect or which have, presumably, influenced its general course. These events taken in conjunction with what appear, at the present moment, to be outstanding experimental and systematic studies may give a suggestion of the history over the last few years.

In psychology, as well as in many other sciences, the most important event, during the period under survey, was the World War. The science of psychology was, as all know, well on the way toward complete mobilization for military purposes when the war ended. Since many of the consequences of this reorganization have not yet appeared, a detailed account of this aspect of the period must fall to a future historian. A few facts are, however, available. For example, more than a fourth of the members of the American Psychological Association entered military service in special [p. 412] branches,[1] and several laboratories undertook the solution of psychological problems of military import. Although there seems to have been no such organized mobilization in France, England or Germany, nevertheless many foreign psychologists contributed important material bearing upon military occupations. Much of the

Livros Grátis

http://www.livrosgratis.com.br

Milhares de livros grátis para download.

interest of foreign nations fell to the diagnosis and treatment of "war psychoses"[2] although special problems in aviation demanded considerable attention (36).[3] In America the science systematically set out to render aid (a) in the air service; (b) in the intelligence service (104); (c) in personnel work and in the selection of men (8, 83, 88); and (d) in the solution of special technological problems involving visual and auditory perception (112, pp. 105-124), morale (39), military instruction (112, pp. 124-128), mental methods of diagnosis and cure, the mental causes of war, and the like (40, 41, 110). The active participation of the science in the war had been presaged by a rapid growth in the various branches of psychotechnology and early in 1917 the first definite step was taken in the organization, by the National Research Council, of a Committee on Psychology (111). A little later the American Psychological Association appointed twelve committees whose work, as planned, encompassed nearly all that the science could do in the emergency (111, 112). By the end of the year the work of these committees was well under way, either in laboratories, at training camps, or in the field (112).

Aside from many lesser, but nevertheless significant contributions to the war, the most important work was done, apparently, in connection with the air service, the medical service and in the selection of men. In the medical research laboratory established at Mineola, Stratton, Dunlap, Watson, Bentley and others initiated important studies upon the psychophysical qualifications of the prospective aviator. Studies were made, for example, upon perception. equilibration (63), and the integrity of mental states under low oxygen pressure (1, 23, 119). As we have suggested, the greatest contributions [p. 413] of the psychologist to medicine appear to have been made in England, France and Germany where highly successful methods of diagnosis, treatment and cure of "war psychoses" were devised. The most elaborate work in America and that which has made the greatest public appeal consisted of the administration to two million men of mental tests which were directed toward the fulfillment of a comprehensive plan of intelligence rating. The selection of men and their assignment to the several branches of the service rested upon the results of these tests (113, 87, 118, 114, 115).

Events of smaller scope which reflect the course of the science or which may be expected to have an influence upon it are (a) the appearance of new journals and the discontinuance of others; (b) the establishment of new laboratories, psychological institutes and departments; (c) the annual addresses of the presidents of the American Psychological Association; and (d) the necrology of our six-year period.

(a) Under the adverse conditions the number of new psychological journals which have appeared is significant as regards the vitality of the science. In 1916, the Journal of Experimental Psychology was founded by Watson. Late in 1917 its publication was suspended because of the war: but in 1920 it was revived and now continues with experimental articles. the Psychological Review printing theoretical articles and discussions. The Journal of Delinquency, devoted to "the advancement and encouragement of scientific investigation in the problems related to social conduct" was also begun in 1916. Psychobiology, a journal devoted to problems common to psychology and to the biological sciences, was founded by Knight Dunlap in 1917. The Journal of Applied Psychology, the official organ of a growing number of men interested in the general field of psychotechnology and a new Swiss journal, the Schweizer Archiv für Neurologie und Psychiatrie, edited by C. v. Monakow, began in the same year. Mental Hygiene appeared at the beginning of 1918 with the attempt to bring "reliable information" to all those interested in "methods of prevention or treatment in the broad fields of mental hygiene and psychopathology." Personnel, began as a publication of the Committee on Classification of Personnel in the Army, in 1918, was made a permanent publication by the National Association of Employment Managers in 1919. 1918 also saw the publication in Peru of the Revista de Psiquiatria y Disciplinas Conexas. Psyche und Eros began publication in 1919. In 1920 Psychobiology joined its interests with the Journal of Animal [p. 414] Behavior which had ceased publication in 1917. A new title, The Journal of Comparative Psychology, was adopted and the editors. Dunlap and Yerkes, were prepared to accept any "studies contributing to the knowledge of mental function and behavior in any organism." During the same year there was established the Archivio Italiano di Psicologia with Kiesow and Gemelli as responsible editors, the International Journal of Psycho-Analysis, and the Archivio generale di Neurologia e Psichiatria. In 1921 the Journal of Abnormal Psychology widened its interests under the new title, the Journal of Abnormal Psychology and Social Psychology, while the

American Journal of Insanity changed its name to the American Journal of Psychiatry. The Revue Metapsychique and Psychologische Forschung, the latter under Koffka, began in 1921. Aside from temporary suspensions due to the war, the most serious loss in journals occurred when Wundt's Psychologische Studien came to its final volume bearing the date 1918.

- (b) Under the impetus furnished by new laboratories, multiplying textbooks, new institutes and a rapidly growing number of trained men, the academic status of the science had continued to improve. The details of this improvement are shown in the 1919 report of the Committee on the Academic Status of Psychology (2) and in the statistical inquiry by McGeoch (62). The latter reports the establishment in this country of twenty-two new laboratories during the last decade. This number is nearly equalled by the establishment of new laboratories in Germany, France, Italy and Japan. In France there has been established (1920) a new Institute of Psychology at the University of Paris under the direction of Professors Delacroix, Dumas, Janet, Piéron, and Rabaud. A similar institute for experimental psychology was opened in 1917 at Constantinople by Professor Anschütz of Kiel. The organization of the American Association of Clinical Psychologists in 1917 and the establishment in Boston and Chicago and in other large cities of municipal psychological laboratories reveals the equally rapid growth of "applied psychology."
- (c) The addresses of the presidents of the American Psychological Association are significant (i) because they reveal the thought of the individual who has been given one of the highest honors among American psychologists, and (ii) because they often strike at the heart of problems confronting, at the moment, the entire science. Watson's address in 1915 on the place of the conditioned reflex in psychology certainly revealed a problem of the hour for it emphasized [p. 415] in no uncertain way the author's rejection of orthodox methods and results (101). In 1916 Dodge spoke on the "Laws of Relative Fatigue," a title which suggests the course of some of his own studies, but which, at the same time, emphasized a problem that has become perennial in psychology and in certain allied sciences (21). In 1917 Yerkes reviewed the "history of the organizing of psychological military service" under the title "Psychology in Relation to the War" (111). As we have suggested, the war had inevitably to increase interest in psychotechnology, or "applied psychology" as it is more commonly known, and Scott's address in 1919 on "Changes in some of our conceptions and practices of personnel" shows the swing of the pendulum in this direction (78). There was no presidential address in 1918, a small meeting of the Association being devoted to military problems. In 1920 the age-old problem of mind-body relations was reviewed by Franz in a setting furnished by the modern psychopathic hospital rather than by philosophical speculation (28). Miss Washburn's address in 1921 was a sign of returning "normalcy" for it undertook to answer one of the challenges set by Watson's pre-war address on method (98). Under the title "Introspection as an Objective Method," she sought to show that introspection or "symptomatic language behavior" is as trustworthy as the methods accepted in other descriptive sciences.
- (d) The necrology for our six-year period is large enough to remind us again that the science is rapidly passing into a third generation. Külpe, Meumann, Witasek, Fabre and Weismann in 1915; Münsterberg, Mach, Alzheimer, Müller-Lyer, Royce, Oppenheim, Norsworthy, Kidd, Horsley and Ribot in 1916; Brentano, Carus, Abramowski, Grasset, Tyler, and Dubois in 1917; Hering and Maudsley in 1918; Baird, Mercier, Ladame, Raleigh and Tamburini in 1919; Wundt, Flournoy, Hyslop, Southard, Leclère, Meinong, Delage and Siebeck in 1920; and Ladd, Lehmann, Verworn, Ewald, Boutroux and Erdmann in 1921, are the most important men in psychology and in related disciplines that have left their laboratories to their students.

In spite of the heroic times through which the science has been passing, there are, at the present moment, no indubitable signs of a material or permanent change in its general character. It is doubtful, however, if such signs would be recognized should they appear, for American psychology, as a single illustration, is the product of so many and such diverse interests that one cannot recognize, at times, even its central problems. A science which has drawn its materials [p 416] from the highly sophisticated German philosophy of the last century, from the physics and physiology of the whole continent, from the biology and animal behavior of England and America, and from the studies of the French upon mental pathology may turn without warning in any direction, especially when the responsibility for a considerable part in the

future development of the science has fallen upon a people who are not naturally given to a love of profound criticism and endless detail but who do have a tremendous capacity for practical affairs. A classified tabulation of the titles appearing in the *Psychological Index* during the last ten years and an inspection of the titles themselves seem, however, to suggest the following inferences: There has been a steady decrease of interest in mind-body relations of the philosophical kind, in general discussions of sensation, in visual sensations (except for 1921), in attention, in comparison and judgment, and in testimony. There has been a growing interest in auditory, cutaneous, olfactory, gustatory and organic sensations including the alleged "static" sensations. Under audition, for example, stands the attack made upon the Helmholtz theory by Wrightson and Keith (108, 11), Rich's study of tonal attributes (70, 71), and Watt's Psychology of Sound (100). The outstanding work of 1916, to take another example, was done by Henning on taste and smell (42, 43) in which the old Linnean and Zwaardemaker classification was replaced by six fundamental qualities forming the corners of a triangular prism upon which all other smell qualities might be placed. The system of taste qualities he arranged into a tetrahedron.

Perception, the functions of the muscles and glands, the various branches of psychotechnology, and social psychology also present distinct advances in interest. Aside from a few other departments which depend almost wholly upon laboratory facilities and which, accordingly, suffered during the war, most of the divisions of the science as listed by the *Index* have continued at the same level for a number of years. Historical notes, relations with other sciences, general problems, methods, apparatus, studies on the nervous system, psychophysics, affection and emotion, instinct, memory, thought, unusual mental states and functions, and animal psychology continue to command a modicum of interest. The number of papers in a given subject is not, of course, a reliable index of the quality of the papers, nor of their systematic importance, and it is quite possible, therefore, that a future survey will see in them a turn of the science in one direction or another. [p. 417]

If it is necessary to hazard a guess as to which way the science is turning one might be tempted to say that the leaven of behaviorism is at work and that the future will see less of the German tradition and more of mind and body as operating or performing in the business of living. It may be for this reason that psychotechnology, including under this term all the applications of psychological facts and principles to law, medicine, education, industry and the like, has developed at a greater rate than any other division of the science. As we have intimated, the war period was a "jubilee year" of "applied psychology." The movement initiated by Stern's "individual psychology" and Münsterberg's industrial enthusiasms has now passed wholly beyond its earlier position of minor interest in the discipline. Those who have looked with alarm upon the rapid way in which the various psychotechnologies have drained the science and laboratories of men and who have seen this drainage tremendously augmented by the war are inclined to believe that the science has fallen, in its youth, upon unfortunate times. On the contrary, those who felt that psychology was losing its contact with a mind whose chief characteristics were alleged to be found during actual mind-body operation and accomplishment, or those who felt that the discipline should administer primarily to the mentally sick, to the deficient, to the aberrant or to such processes as education, believe that the war and the demand for an applied science have saved the discipline from academic abstraction. As we have suggested, there is very little in the character of contemporary research to show which way, if in either, the main current of the science is apt to run. It may turn out that the biological tradition has thrown us a little off our feet, by sending us after a mind whose very existence depends upon adaptation and use. A functional psychology, or, according to Titchener's analysis, a psychology of act, leads naturally to an emphasis upon practical values. On the other hand, it may turn out that; we have buried ourselves too deeply in the German tradition with the result that mental analysis has taken us too far away from mind-body operation.

We shall turn, now, to the second large part of our task, *viz.*, that of enumerating and commenting upon the historical and biographical notes and the large systematic histories. We shall review, first, the general histories, and secondly, the more limited or special historical notes. Only one major contribution has been made to the general history of psychology during the period under survey. The period was prefaced by Baldwin's *History of Psychology*, the first

[p. 418] general history to appear in English, and Klemm's *Geschichte der Psychologie*, which was translated into English by Wilm and Pintner. In 1921, however, the second and third volumes of Brett's *History of Psychology* appeared, thus completing a task which he had set for himself in 1912 when his *History of Psychology*, *Ancient and Patristic*, was published. As will be recalled, 348 pages in the first volume were consumed in tracing the development of psychological thought from Thales to Augustine. The second volume continues to record, on the plan established in the first, in chronological order, "the steps by which psychology has reached its present stage of development." It includes also an estimate of the condition and contribution of all those phases of human thought to which psychology is allied. The second volume contains four parts given respectively to (a) the background of medieval thought; (b) to medieval doctrines; (c) to the sixteenth and seventeenth centuries; and (d) to the eighteenth centuries. The third volume falls into two parts, the first dealing with the "age of transition" and the second describing modern psychology. Fechner, Lotze, Stumpf, Wundt. Mach, Avenarius, Horwicz, Brentano. Lipps, Hartmann, Bain, Spencer, the Mills and James are referred to generously in the third volume.

Brett's history, taken in conjunction with those that have been published prior to the period now under survey, represents a high type of historiography. We still have, however, no history of psychology (37). An historical survey which spends four-fifths of its space in getting as far as 1860 is but a prolegomenon to the history of the *science*. Of the prolegomena, Brett has written one of the best. The science needs, however, a general history which will do for the whole science what Warren has done for the Association Psychology (97). This study was presaged in 1916 by a chapter on "Mental Association. from Plato to Hume. (96), a study which began with Aristotle's establishment of the problem under his principles of similarity, contrast and contiguity and his doctrine of the fusion of experiences. The study, which constitutes Chapter II in the book, goes on to review the contributions of the post-Aristotelians, Descartes, Hobbes, Locke, Berkeley, and Hume. Chapters III, IV, and V in the hook are devoted to Hartley, Brown, Spencer, and Lewes. Chapter VI summarizes the preceding five chapters. Chapter VII sketches the development of Associationism on the Continent. The remainder of the volume (three long chapters) gives a comprehensive summary of the experimental studies upon association and a [p. 419] statement of some of the relations of association to systematic psychology.

A number of other excellent special historical reviews have appeared although none of them is so searching or so complete as Warren's. The first of these, during our period, was Bentley's study of the psychological antecedents of phrenology (6). The writer found that "the historical importance of Gall touches not so closely the vagaries of his doctrine of phrenology as the fact that he sought empirically to integrate the psychological and anatomical knowledge of his time." (6, p. 115). The foundations of Gall's system are found, in part, in French Sensationalism and, in part, in the doctrine of faculties and in the German empirical psychology of the close of the eighteenth century. Another special study of importance has been done by Stratton on early Greek physiological psychology as it appears in a fragment by Theophrastus (82). Stratton finds in Theophrastus the "most important source of our knowledge of the earlier Greek physiological psychology" "... for an acquaintance with what these earlier investigators knew and thought of the observable processes of the mind -- the processes by which we gain our impressions of the outer world and reproduce and elaborate these impressions; the processes of pleasure and pain; and the connection which all these and emotion and purpose have with the different parts or states of the body -- of all these matters that are so important for modern psychology Theophrastus gives in this fragment a report far fuller than we find in Aristotle's De Anima, even when this is supplemented by the historical material in the other works of Aristotle. And one may in perfect justice go even farther and say that for a knowledge of Greek psychology before Plato -- apart from the question as to the nature of the soul, which Theophrastus almost wholly ignores -- we are indebted to Theophrastus for more than to all the other ancient authorities combined " (pp. 15-16). Stratton's study is divided into three sections, the first dealing with Theophrastus as a psychologist of sense perception, and as a reporter and critic of other psychologists, the second with the text and translation of the text, and the third with notes upon the translation and upon the original text.

Boas has uncovered an interesting item in the history of affective psychology($\frac{10}{10}$). In a dissertation by J.J. Reich, a pupil of the famous G.E. Stahl. of Halle, the argument is made in

typical scholastic fasion[sic] that "emotional phenomena" cause such disturbance [p. 420] in the body as dumbness, apoplexy, paralysis, fever, epilepsy, and the like. Gardiner has also contributed to the history of the affections by making a systematic survey of early views on the subject (31, 32, 30). In his first article he reviews the Platonic conceptions of affection and emotion. He finds in Plato "the first considerable attempt at an affective psychology" although it must be confessed that "he drew largely on his predecessors" for his material. These predecessors are Heraclitus, Emyedocles, Anaxagoras, Diogenes, Hippocrates, and so on. "Plato's doctrine of pleasure and pain was developed in relation to the ethical controversies of his time and conditioned by current conceptions as well as by his own ethical and metaphysical inquiry.... The more complex affections, the emotions and passions, are regarded in part as modifications of pleasure and pain, and in part as distinct." The second article considers Aristotle. He, like Plato, treated affection, it is alleged, from other than purely psychological interests. Under Gardiner's interpretation of Aristotle "pleasure is the accompaniment of the free, unimpeded expression of the natural capacities, pain the accompaniment of conditions detrimental to such expression " (p. 6). Pleasures differ in quality, they exercise a facilitating effect upon the activity which they accompany, and they differ in purity. Gardiner then goes on to unravel Aristotle's tangled description of the passions and the emotions. In the third article he follows the development of the subject through the post-Aristotelian philosophy. Here, as in the case of Plato and Aristotle, he finds that the studies were always under the influence of practical interests and the results conditioned in no small degree by ethical and metaphysical considerations which lie largely outside of psychology. He finds evidence, however, of a growing sense of the complexity of the problem and believes that modern achievements in this field are by no means in proportion the time that has elapsed since the Greeks struggled with them.

In another branch of the science Denton (18) has pointed out that the mature views of Herbert Spencer differed materially from his earlier psychological writings. "Crude notions of fatigue and of attention" as well as a thorough-going doctrine of phrenology are discovered by Denton in Spencer's earliest writings.

General reviews of recent history have been appearing in the PSYCHOLOGICAL BULLETIN up to 1920 (72). Yearly summaries of progress in the science have appeared regularly in Appleton's Yearbook and in the Yearbook of the New International Encyclopedia. A few other general reviews have also been written. In a survey of [p. 421] ten years of American psychology Ruckmick (76) found that, contrary to the assertions of many that the science had fallen upon a "strange and troubled time" and that during the fifty-odd years of its existence as an experimental discipline it had signally failed "to make its place in the world as an undisputed natural science," there was every indication of an energetic growth and of the final attainment of first rank among other sciences. Dwelshauvers has reviewed more at length contemporary French psychology (24), but like too many historians of psychology much of his time is spent on the philosophers from Maine de Biran to Bergson instead of upon the psychologists.

In recognition of a quarter century birthday, the *Philosophical Review* published, in 1917, among other papers, two on the development of psychology during the preceding twenty-five years. Miss Washburn, in her retrospections over the quarter century (99), found that a statement made at the beginning of the period was just as true in 1917 as it was in 1892. The statement is "Psychology which, by enlarging its field of observation and improving its methods of investigation, has within the last decade probably outstripped every other province of human knowledge in the rate of its growth."[4] Miss Washburn has shown in broad outline how the science has continued to enlarge its field of observation and to improve and multiply its methods. Pillsbury's paper cites some of the new developments in the science during the quarter-century (68). In 1892 "Wundt's system had reached approximately its final form; James had published his chief books, and Ribot had written his more important works.... With some important exceptions experiment had been confined to sensation, to Weber's law, to space perception, and to reaction times. Ebbinghaus alone had worked on memory; only preliminary experiments had been made upon association and the ideational processes; the physiological accompaniments of mental processes had been little studied, and most of the results obtained were found later to be incorrect " (68, p. 56). As examples of new developments in the science since 1892 Pillsbury sets down the great amount of experimental work upon which modern

discussions are based, the development of the applications and of the branches of psychology such as education, psychiatry and mental pathology, the development of tests of intelligence, animal psychology, the rise of behaviorism, the psychology of advertising, and the like. [p. 422] The writer has found little change during the quarter century in "the persistence of opposing or contradictory theories and in the capacity of different men for drawing opposite conclusions from the same premises and the same observed facts" (p. 67). "As one compares the psychology of the present with the psychology at the time the *Review* was founded, one sees that the advance, great as it is, has not been in the line of development of a single system or even in a tendency to accept a common viewpoint. Rather has it been in the accumulation of facts in an ever widening domain and in the development of complete or partial explanations of separate problems ... there have been no revolutionary discoveries, and most of the great changes in the point of view that were proclaimed or proclaimed themselves to be epochmaking have with time proved to be less striking and of less importance than they seemed at first sight" (p. 69).

Saffiotti's review of the development of experimental psychology in Italy is a distinct contribution to historiography (77). Into twenty-four pages he has crowded the rapid development of Italian psychology from the publication by Guisippi Sergi in 1873 of the *Principi di Psicologia sulla base delle scienze sperimentali*, to the other important systematic texts, to the organization in 1896 of the first experimental laboratory by Tamburini and the founding of the various psychological journals together with a characterization of the psychology which Italy has produced.

Aside from these studies of direct historical value, there is a group of miscellaneous writings which reflect more or less upon the history of psychology or which are introductory to the history. Galen's studies on the "natural faculties" (13), Leibnitz's life and work (14), Hume's relation to Malebranche (22), Rousseau's doctrine of the right to believe (105), Francis Bacon and the modern spirit (61), the James-Lange theory in Lessing (58), psychophysical parallelism as a psychological episode in history (56), the scientific productivity of American professional psychologists (29), the number of articles of psychological interest published in the different languages (25), notes on the presidents of the American Psychological Association (65), Jewish pillars of psychology (73), the Jewish founders of collective psychology (74), the blood and soul in ancient belief (107), the development of British thought (95), Malebranche's conception of psychology (92), the function of intuition in Descartes' philosophy of science (66), Ribot's psychology and its relation to contemporary thought (54), the history and development of thought and emotion [p. 423] in the middle ages (86), and the relation between the color theories of Schopenhauer and of Goethe (4), are some of the topics which fall in this group.

Obituary notices and biographical notes often contribute generously to the history of a period. The life and work of Wundt have been referred to or reviewed by Kraepelin (51), Titchener (90, 91), Wirth (106), by his American Students (84), and by an anonymous writer (120). Ladd's work has been eulogized by Hicks (47), and Seashore (79). Brentano has been given his place temporarily in the science by Kraus (52), and Titchener (89). The latter sets Brentano over against Wundt both of whom are regarded in the light of the "conditions under which their respective psychologies acquired their form and substance." A notice of Külpe's life and writings has been written by Fischer (27). The fortunes of that great genius Helmholtz are traced by Karpinski (50) from his formulation at twenty-six of the law of the conservation of energy through the *Handbuch der physiologischen Optik* and through his other great achievements. Some of Helmholtz's possible predecessors in the field of audition are suggested by Gradenigo (35), Mendenhall reviews his work in physiological optics (64). Hess has written an appreciative review of the work of E. Hering, especially in the field of vision (46). Verworn likewise has written of him (93).

Sheard has given a timely review of Thomas Young's relation to the early development of physiological optics (80). Various aspects of the life and work of C. Pierce[sic] have been treated by Royce and Kernan (75), Ladd-Franklin (53), Jastrow (49), and Dewey (20). Royce has also been honored in the same way by Bennett (5), Cabot (15), Howison (48), and Olgiati (67). Among other men in psychology and in related fields who are listed biographically or

historically are Ribot (94), Münsterberg (81), Tamburini (26, 38, 116), Southard (117), Raleigh (57), Haeckel (19), Ewald (33), Mach (44), Erdmann (85), da Vinci (7, 17, 55), Fabre (103), Crooks (3), Lombroso (12, 59), and Virchow (9, 60, 102). William Stern's fiftieth birthday has been signalized by a survey of his scientific work (16).

References

- [1] Air Service, Medical. Washington: Gov. Printing Office, 1919, Pp. 446.
- [2] BALDWIN, B. T., HENMON, V.A. C, ET AL. Report of the Committee on the Academic Status of Psychology, Amer. Psychol. Assn.; A Survey of I. General and Experimental Psychology; II. Child Psychology; III. Applied Psychology. 1919. Pp. 31. [p. 424]
- [3] BARRETT, W. In Memory of Sir William Crooks, O.M., F.RS. *Proc. Soc. Psych. Res.*, 1920, **31**, 12-29.
- [4] BARTHEL, E. Der Verhältnis der Schopenhauer'schen zur Goethe'schen Farbenlehre. *Arch.f. Gesch. d. Phil.*, 1920, **33**, 60-66.
- [5] BENNETT, C. A. Josiah Royce; notes. *Phil. Rev.*, 1916, **25**, 843-845.
- [6] BENTLEY, M. The psychological antecedents of phrenology. *Psychol. Monog.*, 1916, **21** (No. 92), 102-115.
- [7] BILANCIONI, G. *L'orecchio e il naso nel sistema autopometrico di Leonardo da Vinci.* Roma: Nardecchia, 1920. Pp. 105.
- [8] BINGHAM, W. V. Army personnel work J. of Appl. Psychol., 1919, 3, 1-12.
- [9] BOAK, E. R. Rudolph Virchow -- Anthropologist and Archeologist. *Scient. Mo.*, 1921, **13**, 40-45·
- [10] BOAS, G. A note for the history of affective psychology. *J. of Phil., Psychol., etc.*, 1920, **17**, 157-159·
- [11] BORING, E. G., AND TITCHENER, E. B. Sir Thomas Wrightson's theory of hearing. *Am. J. of Psychol.*, 1920, **31**, 101-I13.
- [12] BOWERS, P. E. Cesare Lombroso. J. of Deling., 1919, 4, 210-220.
- [13] BROCK, A. J. (Trans.) Galen on the natural faculties. New York: Putnam, 1916. Pp. iv+339.
- [14] BURNS, C. D. Leibnitz's life and work. *Monist*, 1916, **26**, 486-503.
- [15] CABOT, R. C. Josiah Royce as a teacher. Phil. Rev., 1916, 25, 466-473.
- [16] COHN, J. William Stern's wissenschaftlicher Werk. Rückblick und Ausblick au seinem 50. Geburtstage. Zsch. f. Päd., Psychol. u. exper. Päd., 1921, 22, 145-149.
- [17] CREDARO, L. Alcuni pensieri pedagogici di Leonardo da Vinci. *Riv. ped.*, 1919, **12**, 225-229.
- [18] DENTON, G. B. Early psychological theories of Herbert Spencer. *Psychol. Rev.*, 1921, 32,

- [19] DE SARLO, F. Ernesto Haeckel. Bilychnis, 1921, 8, 1-12.
- [20] DEWEY, J. The pragmatism of Pierce [sic]. J. of Phil., Psychol., etc., 1916, 13, 692-710.
- [21] DODGE. R. Laws of relative fatigue. Psychol. Rev, 1917, 24, 89-113.
- [22] DOXEE, C. W. Hume's relation to Malebranche. Phil. Rev., 1916, 25, 692-710.
- [23] DUNLAP, K. Psychological Research in Aviation. Science, 1919, 49, 94-97.
- [24] DWELSHAUVERS. La pychologie française contemporaine. Paris: Alcan, 1920, Pp. 256.
- [25] FERNBERGEB, S. W. On the number of articles of psychological interest published in the different languages. *Amer. J. of Psychol.*, 1917, **28**, 141-150.
- [26] FERRARI, G. C. Augusto Tamburini. Riv. di Psicol., 1919, **15**, 241-242.
- [27] FISCHER, A. Oswald Külpe. Zsch. F. päd. Psychol. 1916, 17, 96-99.
- [28] FRANZ, S. I. Cerebral-mental relations. Psychol Rev., 1921, 28, 81-95.
- [29] FRANZ, S. I. The scientific productivity of American professional psychologists. *Psychol. Rev.*, 1917, **24**, 191-219.
- [30] GARDINER, H. N. Affective psychology in ancient writers after Aristotle. *Psychol. Rev.*, 1919, **26**, 204-229. [p. 425]
- [31] GARDINER, W. H. The psychology of the affections in Plato and Aristotle. I. Plato. *Phil. Rev.*, 1918, **27**, 469-488.
- [32] GARDINER, W. H. The psychology of the affections in Plato and Aristotle. II. Aristotle. *Phil. Rev.*, 1919, **28**, 1-26.
- [33] GILDERMEISTER, M. Julius Richard Ewald. Zsch. f. Sinnesphysiol., 1921, 53, 123-128.
- [34] GOLDMAN, H. The applied psychology of Hugo Münsterberg. *J. of Appl. Psychol.*, 1918, **2**, I116-129.
- [35] GRADENIGO, G. Est-ce vraiment à Helmholtz qu'on doit attribuer la théorie sur l'audition qui porte son nom! Les précuseurs: Duverney (1683), Valsalva (1704)· Le Créateur: Cotugno (1761). *Arch. ital. de biol.*, 1919, **69** 33-47.
- [36] GRADENIGO, --; GEMELLI. --; ROMAGNA-MANOIA, --; SAFFIOTTI, --; GALEOTTI, --; AND AGGARROTTI, --. Ricerche fisiopsicologiche candidati all' aviazione militare. *Giorn. med. mil.*, 1919, 1-240.
- [37] GRIFFITH, C. R. Some neglected aspects of a history of psychology. *Psychol. Monog.*, 1921, **30** (No. I36), 17-29.
- [38] GUICCIARDI, G. Augusto Tamburini. Riv. sper. di fren., 1920. 44, i-xix.
- [39] HALL, G. S. Morale in war and after. *Psychol. Bull.*, 1918, **15**, 361-426.
- [40] HALL, G. S. Practical relations between psychology and the war. J. of Appl. Psychol.,

- [41] HALL, G. S. Some relations between the war and psychology *Amer. of Psychol.*, 1919, **30**, 211-273.
- [42] HENNING, H. Der Geruch. Zsch. f. Psychol., 1915, **73**, 161-257; 1916, **74**, 305-413; **76**, 1-127.
- [43] HENNING, H. Die Qualitätenreihe des Geschmacks. Zsch. f. Psychol., 1916, 74, 203-219.
- [44] HENNING, H. Ernst Mach als Philosoph, Physiker und Psychologr. *Eine Monographie*. Leipzig: Barth, 1915. Pp. xviii+185.
- [45] HERING, H. E. Fünf Reden von Ewald Hering. Leipzig: Engelmann, 1921. Pp. 140.
- [46] HESS, C. Ein Nachruff auf Ewald Hering. Arch. f. Augenhk., 1917, 83, 89-97.
- [47] HICKS, G. D. Obituary, Professor G. T. Ladd. Nature, 1921, 108, 23-24.
- [48] HOWISON, G. H. Josiah Royce: the significance of his work in philosophy. *Phil. Rev.*, 1916, **25**, 231-245.
- [49] JASTROW, J. Charles S. Pierce [sic] as a teacher. J. of Phil., Psychol., etc., 1916, **13**, 723-725·
- [50] KARPINSKY, L. C. Hermann von Helrnholtz. Scient. Mo., 1921, 13, 24-32.
- [51] KRAEPELIN, E. Wilhelm VVutldt. Zsch. f. d. ges. Neur. u. Psychiat., 1920, 61, 351-362.
- [52] KRAUS. O. Franz Brentano. Münschen: Beck, 1919. Pp. xii+171.
- [53] LADD-FRANKLIN, C. Charles S. Pierce [sic] at the Johns Hopkins. J. of Phil., Psychol., etc., 1916, 13, 715-722.
- [54] LENOIR, R. La psychologie de Ribot et la pensée contemporaine. *Rev. de métaphys. et de morale*, 1919, **26**. 739-763. *Monist*, 1920, **30**, 365-394.·[p. 426]
- [55] LIEB, J. W. Leonardo da Vinci: natural philosopher and engineer. *J. of Franklin, Inst.*, 1921, **191**, 767-806; **192**, 47-68.
- [56] LLOYD, A. H. Psychophysical parallelism: A psychological episode in history. *J of Phil, Psychol, etc.*, 1917, **14**, 561-570.
- [57] LODGE, O. In memory of Lord Rayleigh, O.M., F.R.S. *Proc. Soc. Psych. Res.*, 1920, **31**, 1-11.
- [58] LOEWENBERG, J. S. The James-Lange theory in Lessing. *Amer. J. of Psychol.*, 1917, **28**, 301.
- [59] LOMBROSO, G. Come mio padre venne all'antropologia criminale. *Arch. di antrop. crim.*, 1921, **41**, 419-437.
- [60] LUBARSCH, O. Rudolph Virchow und sein Werk. Berl. klin. Woch., 1921, 58, 1345-1349.
- [61] McCLURE, M. T. Francis Bacon and the modern spirit. *J. of Phil, Psychol., etc.*, 1917, **14**, 520-527.

- [62] McGEOGH, J. A. The present status of psychology. Colorado, Coll. Publ. Gen. Series, No. 103, 1919.
- [63] *Manual of Medical Research Laboratory*. Washington: War Dept., Gov't Print. Office, 1918, Pp. 255.
- [64] MENDENHALL, T. C. von Helmholtz, Amer, J. of Physiol. Opt., 1921, 2, 115-120.
- [65] MOORE, C. B. Notes on the presidents of the American Psychological Association. *Amer. J. of Psychol.*, 1918, **29**, 347-349.
- [66] MURSELL, J. L. The function of intuition in Descartes' philosophy of science. *Phil. Rev.*, 1919, **28**, 370-409.
- [67] OLGIATI, F. Un pensatore Americano: Josiah Royce. Milano: Via Mazzini, 1917, Pp. 114.
- [68] Pillsbury, W. B. The new development in psychology in the past quarter century. *Phil. Rev.*, 1917, **26**, 56-69.
- [69] *Proceedings of the Annual Meetings of the Amer. Psychol. Assn.* PSYCHOL. BULL. 1917, **14**, 33-80; 1918, **15**, 25-56; 1919, **16**, 33-61; 1920, **17**, 33-82; 1921, **18**, 57-108; 1922, **19**, 65-115.
- [70] RICH, J. G. A preliminary study of tonal volume. J. of Exper Psychol., 1916, 1, 13-22.
- [71] RICH, J. G. A study of tonal attributes. *Amer. J. of Psychol.*, 1919, **30**, 121-I64.
- [72] RILEY, W. Historical contributions. PSYCHOL. BULL., 1916, **13**, 1-4; 1917, **14**, 1-3; 1918, **15**, 1-4; 1919, **16**, 1-3.
- [73] ROBACK, A. A. Jewish pillars of psychology. , Amer. Jewish Chron., 1917, 3, 596-597.
- [74] ROBACK,.A. A. The Jewish founders of collective psychology. *.Amer. Jewish Chron.*, 1917, **3**, 671-673.
- [75] ROYCE, J., and KERNAN, F. Charles Saunders Pierce [sic]. J. of Phil Psychol., etc., 1916, 13, 701-708.
- [76] RUCKMICK, C. A. The last decade of psychology in review. PSYCHOL. BULL., 1916, 13, 109-120.
- [77] SAFFIOTTI. F. U. La evoluzione della psicologia sperimentale in Italia. *Riv. di psicol.*, 1920, **16**, 129-153..
- [78] SCOTT, W. D. Changes in some of our conceptions and practices of personnel. *Psychol. Rev.*, 1920, **27**, 81-94. [p. 427]
- [79] SEASHORE. C. E. George Trumbull Ladd. Science, 1921, 54, 242.
- [80] SHEARD, C. Thomas Young: the father of physiological optics *Amer. J. of Physiol. Opt.*, 1920, **1**, 9-14.
- [81] STERN, W. Hugo Münsterberg: in memoriam. J. of Appl. Psychol., 1917, 1, 186-188.
- [82] STRATTON, G. M. *Theophrastus and the Greek physiological psychology before Aristotle*. New York: Macmillan. 1917, Pp. 227.

- [83] STRONG, E. K. Work of the committee on classification of personnel in the army. *J. of Appl. Psychol.*, 1918, **2**,130-139.
- [84] STUDENTS, HIS AMERICAN. In memory of Wilhelm Wundt. *Psychol. Rev.*, 1921, **28**, 153-188.
- [85] STUMPF, H. Gedächtnisrede auf Benno Erdmann. Setzber. der preuss. Akad. d. Wiss., 1921, 497-508.
- [86] TAYLOR, H. O. *The medieval mind. A history of the development of thought and emotion in the middle ages.* (2 vols., 3rd Amer. ed.). London: Macmillan, 1920. Pp. 600+630.
- [87] TERMAN, L. M. The use of intelligence tests in the army. PSYCHOL. BULL, 1918, 15, 177-187.
- [88] THORNDIKE, E. L. Scientific personnel work in the army. Science, 1919, 49, 53-61.
- [89] TITCHENER, E. B. Brentano and Wundt: Empirical and Experimental Psychology. *Amer. J. of Psychol.*, 1921, **32**, 108-120.
- [90] TITCHENER, E. B. Wilhelm Wundt. Amer. J. of Psychol., 1921, 32, 108-120.[*]
- [91] TITCHENER, E. B. Wilhelm Wundt, 1832-1920. Science, 1920, 52, 500-502.
- [92] VAN BIÉMA, E. Comment Malebranche conçoit la psychologie. *Rev. de métaphys. et de morale*, 1916, **23**, 127-146
- [93] VERWORN, M. Ewald Hering. Zsch. f. allg. Physiol., 1919, 18, 97-104.
- [94] VILLA, E. Armando Theodulo Ribot. Riv. d. fil., 1917, 9, 101-109.
- [95] WADDINGTON M. M. The development of British thought. Toronto: Dent & Sons, 1919, Pp. 194.
- [96] WARREN, H. C. Mental association from Plata [sic] to Hume. Psychol. Rev., 1916, 23 203-231.
- [97] WARREN, H. C. A history of the association psychology. New York: Scribner, 1921, Pp. ix+328.
- [99] [sic] WASHBURN, M. F. The last quarter century in psychology. Phil. Rev., 1917, 26, 46-55
- [98] [sic] WASHBURN, M. F. Introspection as an objective method. Psychol. Rev., 1922, 29, 89-112.
- [100] WATT, H. J. The psychology of sound. Cambridge: Univ. Press, 1917, Pp. viii+241.
- [101] WATSON, J. B. The place of the conditioned reflex in psychology. *Psychol. Rev.*, 1916, **23**, 89-116.
- [102] WELLER C. V. Rudolph Virchow -- Pathologist. Scient. Mo., 1921, 13, 33-39.
- [103] WHEELER, W. M. Jean-Henri Fabre. J. of Animal Behav., 1916, 6, 74-80. [p. 428]
- [104] WHIPPLE, G. M. The obtaining of information: Psychology of Observation and report.

- PSYCHOL. BULL., 1918, 15, 217-248.
- [105] WILDE, N. Rousseau's doctrine of the right to believe. Mind, 1917, 26, 12-28.
- [106] WIRTH, W. Unserem grossen Lehrer Wilhelm Wundt in unanslöschlicher Dankbarkeit zum gedächtnis! *Arch. f.* d. *ges. Psychol.*, 1920, **40**, i-xvi.
- [107] WRIGHT, J. The blood and soul in ancient belief. *N. Y. med. J.*, 1918, **108**, 93-98; 225-227; 271-277.
- [108] WRIGHTSON, T. An Inquiry into the Analytical Mechanism of the Internal Ear. London: Macmillan. 1918. Pp. xi+254.
- [109] YERKES, R. M. Psychology and the national service. PSYCHOL. BULL., 1917, **14**, 259-263[**]
- [110] YERKES, R M. Psychology and the national service. *J. of Appl. Psychol.*, 1917, **1**, 301-304.
- [111] YERKES, R. M. Psychology in relation to the war. Psychol. Rev., 1918, 25, 85-115.
- [112] YERKES, R. M. Report of the Psychology Committee of the National Research Council. *Psychol. Rev.*, 1919, **26**, 83-149·
- [113] YERKES, R. M. (ED.). Memoirs of the Nat. Acad. Sci., 1921, 15, 1-890.
- [114] YERKES, R. M. and OTHERS. National Research Council. The national intelligence tests. Yonkers: World Book Co., 1920. Pp. 32.
- [115] YOAKUM, C. S., and YERKES. R. M.. Army mental tests. New York: Holt, 1920. Pp. 303.
- [116] ANON. Auguste Tamburini. In Memoriam. Roma: Unione Editrice, 1920. Pp. 278.
- [117] ANON. Elmer Ernest Southard. Obituary. Ment. Hygiene, 1920, 4, 679-681.
- [118] ANON. How the army uses individual differences in experience. PSYCHOL. BULL., 1918, **15**, 187-206.
- [119] ANON. Medical studies in aviation (IV. psychologic observations and methods). *J of Amer. Med. Ass.*, 1918, **71**, 1382-1400.
- [120] ANON. Wilhelm Wundt. Münch. med. Woch., 1921, 521-525.

Footnotes

- [1] See *J. of Appl. Psychol.*, 1917, **1**, 394-395 for some of the early appointments. A list of appointments as of November, 1918, appears in the same journal, 1918, **2**, 294-295, 386.
- [2] For titles running into the hundreds see the *Psychological Index*, 1916, **22**; 1917, **23**; 1918, **24**; etc. Relevant titles are found under VII-7, IX-1-a and b, IX-9, X-3.
- [3] For a large number of other titles see *Psychological Index*, especially Division VII-7 during the years 1915-1921.

- [4] See prefatory note, Phil. Rev., 1892, 1, 7.
- [*] Classics Editor's Note: References [89] and [90] are given the same page numbers here. This appears to be an error. [90] was actually published on pp. 161-178 of volume 32 (1921) of American Journal of Psychology.
- [**] Classics Editor's Note: References [109] and [110] a given the same titles here. However, the title of [109] should be "Discussion and report: Psychology and national service."

Livros Grátis

(http://www.livrosgratis.com.br)

Milhares de Livros para Download:

Baixar	livros	de A	\dmi	inis	tracão
Daixai	11 4 1 00	$\alpha \cup \gamma$	MILL		ti ayac

Baixar livros de Agronomia

Baixar livros de Arquitetura

Baixar livros de Artes

Baixar livros de Astronomia

Baixar livros de Biologia Geral

Baixar livros de Ciência da Computação

Baixar livros de Ciência da Informação

Baixar livros de Ciência Política

Baixar livros de Ciências da Saúde

Baixar livros de Comunicação

Baixar livros do Conselho Nacional de Educação - CNE

Baixar livros de Defesa civil

Baixar livros de Direito

Baixar livros de Direitos humanos

Baixar livros de Economia

Baixar livros de Economia Doméstica

Baixar livros de Educação

Baixar livros de Educação - Trânsito

Baixar livros de Educação Física

Baixar livros de Engenharia Aeroespacial

Baixar livros de Farmácia

Baixar livros de Filosofia

Baixar livros de Física

Baixar livros de Geociências

Baixar livros de Geografia

Baixar livros de História

Baixar livros de Línguas

Baixar livros de Literatura

Baixar livros de Literatura de Cordel

Baixar livros de Literatura Infantil

Baixar livros de Matemática

Baixar livros de Medicina

Baixar livros de Medicina Veterinária

Baixar livros de Meio Ambiente

Baixar livros de Meteorologia

Baixar Monografias e TCC

Baixar livros Multidisciplinar

Baixar livros de Música

Baixar livros de Psicologia

Baixar livros de Química

Baixar livros de Saúde Coletiva

Baixar livros de Serviço Social

Baixar livros de Sociologia

Baixar livros de Teologia

Baixar livros de Trabalho

Baixar livros de Turismo