

3. BURR, C. W. The Psychology of Misers. *J. of Nerv. & Ment. Dis.*, 1915, 42, 383-398.
4. CODY, S. *How to Deal with Human Nature in Business*. New York: Funk, Wagnalls, 1915. Pp. 488.
5. DAVENPORT, C. B. Violent Temper and its Inheritance. *J. of Nerv. & Ment. Dis.*, 1915, 42, 593-628.
6. DEARBORN, G. V. N. *The Influence of Joy*. Boston: Little, Brown, 1916.
7. DRAKE, D. *Problems of Conduct*. Boston: Houghton, Mifflin, 1914. Pp. vii + 455.
8. GOWIN, E. B. *The Executive and his Control of Men*. New York: Macmillan, 1915.
9. JASTROW, J. *Character and Temperament*. New York: Appleton, 1915. Pp. xviii + 596.
10. KERSCHENSTEINER, G. *Charakterbegriff und Charaktererziehung*. Leipzig: Teubner, 1912. Pp. 207.
11. MONTMORENCY, J. E. G. DE. Patriotism and Character. *Contemp. Rev.*, 1914, 106, 821-825.
12. PRINCE, M. *The Psychology of the Kaiser*. Boston: Badger, 1915. Pp. 112.
13. PUTNAM, J. J. *Human Motives*. Boston: Little, Brown, 1915. Pp. xvii + 179.
14. WHITNEY, W. T. *Moral Education*. Boston: Leroy Phillips, 1915. Pp. 108.

COMPARATIVE PSYCHOLOGY OF RACES

BY R. S. WOODWORTH

Columbia University

We are at last beginning to get comparative mental measurements of the white and colored elements in the population of the United States. A few series of such measurements were noticed in a previous number of the BULLETIN devoted to race and kindred topics (Oct. 15, 1914), and more have since appeared.

Phillips having previously observed that the school retardation was much greater in Philadelphia schools for colored children than in those for white, now (13) applies the Binet tests to groups of white and colored children whose homes were also visited, and equates the environmental factor by pairing each colored boy with a white boy of approximately the same age and home conditions, and girls similarly. The colored group tested on the average .83 years below their chronological age in the case of the boys, and .59 years below in the case of the girls, whereas the white boys averaged .16 years above and the white girls .19 years above. The difference between the white and colored children was thus .99 years (Binet units) with boys, and .78 years with girls. Of the colored children, 68 per cent. got a Binet rating below their

chronological age, and of the white children only 43 per cent. Of a larger unselected group of 86 colored and 166 white children, from which the above-mentioned comparable groups were selected, 55 per cent. of the colored ranked a year or more behind their chronological age, and 7 per cent. a year or more ahead; while of the white children 24 per cent. ranked a year or more behind and 20 per cent. a year or more ahead. The author also reports incidental observations—without statistical evidence—to the effect that “the colored pupils as a class were good in the memory tests and poor in those requiring judgment. They were generally slower in response. The testing of the colored children took a much longer time than the white. Their reaction time was greater, they were less animated.”

A comparative study of the amount of “retardation” in grade of white and negro pupils is reported by Perring (12) from a Philadelphia school in which about a third of the pupils were negroes taught in classes along with the white children. A considerably larger proportion of the colored than of the white pupils were found to be retarded, the percentages being: for white boys 34; for white girls, 29; for negro boys, 57; for negro girls, 59. This difference between the races was more pronounced in the lower than in the upper grades, perhaps because of differences in the factor of elimination. The average degree of retardation, measured in years, was greater for the retarded negro than for the retarded white children. There were also fewer cases of acceleration among the negro than among the white children. This relative lagging of the negro in school was not due to an excess of physical defects, for the medical inspector’s record showed, curiously enough, that physical defects were more common among the white than among the negro children.

Pyle has made extensive and comparative tests of negro and white children, ages eight to sixteen, and published two brief notes (14, 16) and a somewhat fuller report (15). The negro children were pupils in the schools of three towns in Missouri. In general, the negro children scored less than the whites in the tests. The girls did better than the boys in both races, and in fact the negro girls surpassed the negro boys more than the white girls surpassed the white boys. The racial differences in the different tests varied considerably, thus in the average of both girls and boys the colored children scored in relation to the whites of the same ages the following percentages: in cancellation tests, 99; in a free association test calling for speed in continued association, 83; in logical memory,

82; in rote memory, 73; in word building, 47; in substitution tests, 46; in controlled association (average of tests for opposites, genus-species, and part-whole), 41.

Pyle's curves show that the difference between the negroes and whites tested becomes somewhat less with advancing age, as appears also in the following condensation of his data. In the average of both sexes negro children of 8 to 10 scored 50 per cent. as much as whites of the same age; negro children of 11 to 13, 59 per cent.; and negro children of 14 to 16, 73 per cent.

Pyle separated the negroes into two groups according to their social positions and found that those of the upper social class stood about midway between the whites and the poor negro group. This difference was most marked in tests for learning, association, memory and constructive imagination. The author suggests that the negroes composing the upper social class may have more white blood than the others. At all ages the boys of the two races were about equal in muscular strength and speed; and the same is true for the younger girls; negro girls surpassed white girls in strength above the age of ten, whereas white girls surpassed in speed.

In a later series of tests with a special apparatus calling for motor coördination and association the results indicated that "negro children have three fourths to four fifths the learning capacity of white children," whereas in the former series the general result gave them about two thirds of the score of the whites. The author believes that the factor of experience and environment is largely eliminated in the later tests.

Ferguson has published a full report (6) of some tests of white and negro children in the schools of Richmond, Fredericksburg and Newport News, Va., along with a discussion of the literature. The subjects were principally from the ages of 11 to 18 and were in both primary and secondary schools. Since the proportion of colored children attending school is somewhat smaller than that of the whites, and considerably smaller in case of the high school, the probability is that negro subjects represented a somewhat more selected class than the whites, especially in the upper grades. In all 486 whites and 421 colored pupils were tested with the analogy or mixed relation test, the Trabue form of the completion test, a cancellation test and a maze or steadiness test. When the white children are compared with all colored children taken together the white make a considerably better score in the mixed relation and completion tests, though this difference becomes less in the high-

school grades. Taking all groups together the colored children scored 75 to 80 per cent. of the whites in the mixed relation test and completion tests, while in the cancellation or maze tests there was no clear difference between the races. In the maze test the colored pupils worked more slowly and more accurately, whereas in the cancellation test they worked more rapidly and less accurately, but these minor differences are perhaps not significant, the general effect being that of equality between the races in these two tests. In the more intellectual tests mentioned the relative score of the negroes as compared with whites was considerably better in the upper grades and occasionally goes above par. Expressed in terms of the percentage of the colored subjects reaching or exceeding the average of the whites, we find, for example, in the mixed relation test: for Grade 5 about 20; for Grade 6, 25; for Grade 7, 14; for first year high school, 48; second, 28; third, 88; and fourth 54. In the completion test negroes do not stand as well as in the mixed relations test.

The author, being accustomed to negroes, classified his subjects into full blooded, three quarters, mulatto and quadroon on the basis of color, hair and features, and while he admits a certain margin of error in this classification, believes that it was fairly accurate. He is thus enabled to compare the standing of the full bloods and mixed bloods, and reaches the clear result that, in the more intellectual tests, success increased with the proportion of white blood. Thus in the mixed relations test the full-blooded negroes scored about 64 per cent. as much as the whites; the three-fourths negroes, 70 per cent.; the mulattos 82 per cent. and the quadroons (of whom, however, there were only a few) 96 per cent. He also found that the proportion of light-colored negroes increased from 46 per cent. in the elementary school to 59 per cent. in the high school. This indicates "that the schools select colored persons of partly white lineage to a greater extent than they select negroes, and as the grades advance the selection becomes more pronounced. This would imply that mulattoes in general are of greater ability and ambition than are pure negroes."

As regards variability, the author reaches the probable conclusion that pure negroes vary less than whites and mulattos about the same as whites; that when all colored subjects are taken together they vary more than the whites. In a concluding discussion the author suggests that the tests and school records indicate that the negro is not on an equality with the white in regard to scholastic

attainment. Following the line taken by Galton in estimating the eminence of different races and assuming that negroes average 75 per cent. of white ability, the mulattoes 87.5 per cent., he computes that there should be six mulattoes and two negroes in the United States of the degree of eminence reached by 4,464 whites.

Martin (9) reports briefly on an attempt to adapt the Binet tests to the Zulu language and conditions, finding that some tests can and others cannot be readily adapted. The children under eight years who were tested came out "at age" or within a year of age, while older children tended to fall below age, either because the tests were ill-adapted to those above the age of eight, or else because Zulu adults do not show as good relative ability as Zulu children. At all ages there was a great deal of difficulty in the test calling for comparison of weights.

Atlanta University has published a collection of several papers, reprinted from different sources, by Mall, Boas, Thomas, Chamberlin and others bearing upon the question of negro intelligence.

Stigler's work (19) on racial differences, though physiological rather than psychological, deserves mention here. Though the European is able to endure tropical life, provided he avoids malaria and other tropical diseases, he is not, as a rule, able to perform heavy labor safely. He is much more subject to heat prostration. The author seeks the cause of this racial difference. He brings together previous evidence regarding the value of the skin pigmentation of tropical peoples, with the result that pigmentation is not a protection against overheating, but only against the chemical effects of the actinic rays. The temporary pigmentation of the white man's skin exposed to sunlight, together with clothing, enables him to withstand the direct effect of tropical radiation. The real difficulty for the white man in the tropics occurs in the process of removal of heat from the body, especially the excess of heat produced in muscular activity. By experiments on (unfortunately very few) white and negro subjects performing very active exercise in overheated rooms, the author found the negro's temperature to rise somewhat less on the whole in doing a certain quantity of work, and to return more quickly to normal after the work ceased. The mechanism by which the negro accomplished his superior regulation was not clearly made out. It could not be by more abundant perspiration, since both white and negro produced an excess of sweat, *i. e.*, so much that much of it dropped from the skin before it could evaporate and cool the skin. Some evidence, not

wholly satisfactory, is cited to the effect that the blood vessels are more developed in the negro's than in the white skin; this, if true, would permit of more heat elimination by radiation and conduction. No doubt the negro's superior heat regulation is partly a native and partly an acquired trait, though it is not yet clear exactly how the effect of training comes in. The author suggests that possibly the cutaneous vasodilation after exercise is more prolonged in the case of the negro.

The book by Du Bois (4) though having little to say about the psychology of the negro is interesting because written from the negro's standpoint. It endeavors to summarize what is known regarding the history of Africa, of the slave trade and of the negroes in America both before and after enfranchisement, and to point out the achievements of the negro race as well as the difficulties with which it has to contend.

A comparison of white and Indian children by the Binet tests has been made by Rowe (18). The Indian children (mostly from 10 to 19 years old) were pupils in the U. S. Government School at Mt. Pleasant, Michigan, and the white children (mostly from five to eleven years old) were in the schools of the same town. The Indian children showed more retardation of the mental as compared with the chronological age than white children. The weakness of the Indian children seemed especially marked in tests involving comparison and definition, though these differences between the different tests were not very marked, the Indians being everywhere inferior to the whites. It should be said, however, that the Indian children tested were on the whole very much older than the white children and therefore not only likely to show more retardation in years but also, according to all experience, somewhat less susceptible to fair examination by the Binet tests. When a comparison is made between whites and Indians of the same chronological ages (ages 10 and 11 being the only ones available), however, there is still evident considerable superiority of the whites.

The book of Gobineau (7), published in 1853, now translated, advances the general thesis that different races and stocks are naturally unequal in strength and ability and that they are unaffected by environmental conditions. The decline in civilization that appears from time to time in one or another country does not mean a decline in the strength of certain stock, but the disappearance of that stock through death or dilution with weaker stock.

Jordan (8) gives three causes that can permanently lower the

force of a race: First, emigration of its stronger stock; second, immigration of inferior stock; or third, war killing off the more virile strains. Race mixture, which is often supposed to give an inferior product, does so only because the mixture commonly occurs between inferior parts of the two races. When, however, good blood from each race unites we have no evidence that the hybrid is inferior to the parent stocks. "The intermarriage of European races can hardly be called crossing at all as the racial differences concerned are of slight order, little more than temperamental at the best, and most of the traits we commonly recognize are matters of education. All those qualities which disappear in a generation in America must be chargeable to education, not to race. And, in general, other things being equal, the advantage seems to be on the side of the blended races which belong to the same general stock. Moreover, in civilized lands there are only blended races." Apparently the mulatto in America as a whole is superior to the pure negro from Africa; but the black stock is inferior to the white. "The claim is sometimes made on an assumed basis of science that all races of men are biologically equal, and that the differences of capacity which appear are due to opportunity and to education. But opportunity has come to no race as a gift. . . . Powerful strains make their own opportunity. The progress of each race has depended on its own inherent qualities. . . . Physical surroundings have played only a minor part. . . . In general, the highest range of possibilities in every field has been reached by the blonde races of Europe. Groups of less individual or of less aggregate achievement may properly be regarded as lower." It should be said that the evidence for these statements is not given in the article.

Diggs (3) is of the opinion that race is responsible for a large share of the differences between nations in such matters as language, literature, institutions, industry and religion, all these being dependent upon what he calls "mental set of a people" which in turn is dependent upon its physical constitution.

Parsons (11) gives reasons for doubting the customary assertion of civilized man that he owes his civilization to far-sightedness in contrast with the improvidence of primitive peoples. She describes the preparations made for a rain dance of the Zuñi as evidence of a long series of activities designed for a future end and involving present self-denial. Even among still more primitive tribes ceremony and magic are present, and these always mean forethought

and self-denial. The difference between modern and primitive man or rather between modern and primitive culture is in the direction taken by human providence.

Recent discussions of national differences have been influenced by the war and are, on the whole, even less worthy of the psychologist's attention than usual. An exception should be made in favor of the works by Veblen and Dewey, which are thoroughly dispassionate. Veblen (20) shows that racially Russia, Scandinavia, Germany, the Low Countries and England differ only to a very slight degree, all the races of Europe being composed of the same elements, though the darker element preponderates more towards the south and the blonde element towards the north. The differences are very slight on the east and west lines. He endeavors to reconstruct for the reader the prehistoric Baltic culture out of which, with, of course, many borrowings from the Mediterranean, the present culture of the northern countries has developed. Racially, he believes, this stock is better adapted to the conditions that obtained in this ancient culture than to the modern industrial situation.

Dewey (2) finds that the philosophy of Kant with its recognition of the "two worlds"—that of sense to be studied scientifically and that of the inner moral self to be asserted—was a formulation of a deep-seated German attitude; he endeavors to show that this formulation has had considerable influence on the further course of German political and military life. The freedom of the individual is conceived primarily as an inner thing and consistent with compliance with external authority, while duty is determined not by consideration of the consequences of actions but by an assertion of inner worth.

Ellis (5) finds two contradictory statements from German sources as to the most characteristic element of the German spirit and attitude, Goethe placing it in the idea of personal freedom, others more or less definitely in the idea that the individual exists for the State. Both of these views may be true. "The same country may at different periods and in different aspects at the same period show unlike or even opposite attitudes toward life." Thus, the typical Spanish attitude may be represented by Don Quixote or by Sancho Panza, or the typical English attitude by Shakespeare or by Milton. The German spirit oscillates between the individualistic and the socialistic and also between extreme nationalism and extreme internationalism, the latter being best illustrated by the Germany of the later eighteenth century.

"The chief feature of the Russian character," says Parker (10), "I speak of the masses, for the classes are not unlike those of other countries, *i. e.*, somewhat loose and cynical—is the presence of 'soul.' The character is genuinely religious. . . . I cannot recall any self-assertive or boastful Russians; no doubt they exist, but it is not the national characteristic to be so."

Radosavljevich (17) also finds that deep religious feeling is a marked trait of the Slavonic peoples, and as other Slavonic traits he finds indicated in the national poetry a melancholy which has nothing to do with sentimentality or pessimism, a highly developed power of suffering and a humility and patience as opposed to the haughtiness and aggressiveness of the western European nations.

Woods (21) applies his "historiometric method" to the question whether war is diminishing, by counting up the years during each decade, century, etc., since 1450, during which each of the European nations has been at war. For all the nations taken together, the war curve shows a maximum in 1550-1600, and a general decline since, interrupted by a secondary maximum in 1800-1850. A group of "lesser nations," Holland, Turkey, Spain, Poland, Sweden and Denmark, shows a pretty definite decline since 1650, coincident with the decline in their political significance; whereas the greater nations, Austria, Prussia, Russia, France and England, show on the whole much less decline in the frequency of war. Of these greater nations, Prussia and Austria do indeed show the decline, while France, England and Russia show no marked change from century to century. The author urges that in answering the question whether war shows a tendency to diminish in prevalence we must take account of long periods of history, and discount temporary ups and downs; and believes that it is impossible to infer more from the evidence than that there is a certain probability that war tends to decline. It is not certain, he maintains, that the human race desires the cessation of war; for, though men are content in times of peace, certain of their inherent "tribal and gregarious instincts" are simply dormant then. "The war instinct is probably a different thing from the fighting instinct," the latter being individualistic and bringing the individual into conflict with his immediate group, whereas the war instinct is gregarious and seeks satisfaction in the rivalry of different groups, especially of neighboring groups.

REFERENCES

1. BIGHAM, J. A. *Select Discussions of Race Problems*. Atlanta, Ga.: Atlanta University Press, 1916. Pp. 108.

2. DEWEY, J. *German Philosophy and Politics*. New York, 1915. Pp. 134.
3. DIGGS, S. H. Relation of Race to Thought Expression. *J. of Phil., Psychol., &c.*, 1915, 12, 346-358.
4. DU BOIS, W. E. B. *The Negro*. London, 1915. Pp. 254.
5. ELLIS, H. The German Spirit. *Atlantic Mo.*, 1915, 115, 551-559.
6. FERGUSON, G. O., JR. The Psychology of the Negro: An Experimental Study. *Arch. of Psychol.*, No. 36, 1916. Pp. 138.
7. GOBINEAU, A. DE. *The Inequality of Human Races*. (Trans. by A. Collins.) London: Heinemann, 1915. Pp. xv + 218.
8. JORDAN, D. S. Biological Effects of Race Movements. *Pop. Sci. Mo.*, 1915, 87, 267-270.
9. MARTIN, A. L. Experiments with Binet-Simon Tests upon African Colored Children, Chiefly Kaffirs. *Training Sch. Bull.*, 1915, 12, 122-123.
10. PARKER, E. H. The Russian Character. *Fortn. Rev.*, 1915, 98, 513-518.
11. PARSONS, E. C. Primitive Improvidence. *J. of Phil., Psychol., &c.*, 1916, 13, 371-374.
12. PERRING, L. F. A Study of the Comparative Retardation of Negro and White Pupils in a Philadelphia School. *Psychol. Clinic*, 1915, 9, 87-93.
13. PHILLIPS, B. A. The Binet Tests Applied to Colored Children. *Psychol. Clinic*, 1914, 8, 190-196.
14. PYLE, W. H. Mentality of the Negro Compared with Whites. *Psychol. Bull.*, 1915, 12, 71.
15. PYLE, W. H. The Mind of the Negro Child. *School & Society*, 1915, 1, 357-360.
16. PYLE, W. H. The Learning of Negro Children. *Psychol. Bull.*, 1916, 13, 82-83.
17. RADOSAVLJEVICH, P. R. Psychology of Slavic People. *Psychol. Bull.*, 1915, 12, 79-80.
18. ROWE, E. C. Five Hundred Forty-Seven White and Two Hundred Sixty-Eight Indian Children Tested by the Binet-Simon Tests. *Ped. Sem.*, 1914, 21, 454-468.
19. STIGLER, R. Vergleich zwischen der Wärmeregulierung der Weissen und der Neger bei Arbeit in überhitzten Räumen. *Pflüger's Arch. f. d. ges. Physiol.*, 1915, 160, 445-486.
20. VEBLEN, T. B. *Imperial Germany and the Industrial Revolution*. New York, 1915. Pp. 324.
21. WOODS, F. A. *Is War Diminishing?* Boston, 1915. Pp. 105.

THEORETICAL ETHNOLOGY

BY ROBERT H. LOWIE

American Museum of Natural History

The activities of ethnologists, apart from purely descriptive work, have been largely concentrated on a definition of their aims and methods in relation to those of contiguous branches of science. On the whole, there is a decided tendency to assert the autonomy of ethnology, the frame of mind of most of the writers bearing some resemblance to the attitude of the biological vitalists in rejecting a definition of life in terms of physico-chemical causality.