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## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

### THE AMERICAN NEGRO<sup>1</sup>

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Students of the negro are aware of the lack of knowledge concerning this problem. Careful determination of the racial elements of the individual or group has been carried out in exceptional cases by relatively few investigators. A number of researches, economic, social, medical, have been completed or are now in progress, the results of which may be directly influenced by the factor of racial constitution, and this factor is generally unknown. The literature of the American negro abounds in contradictory claims concerning his native ability, his endurance of city life, resistance to disease, etc. Throughout the literature the environmental factors are usually recognized. the constitutional element commonly neglected, and to this circumstance some of the opposing results may be attributed.

The colored hybrids and pure-blood negroes are generally dealt with as a biological unit, when in fact the negroid population of the United States is composed of many different types. The hybrid is distinguished biologically from the white and from the negro, but society tries to make him a negro; and as a negro he enters into various records which are used as sources for study. Under such circumstances the conclusions of a research not only fail to convince but often add further complications to the question. Negro problems of importance in their relation to all elements of the population are undertaken without consideration of the racial mixtures of the groups used in the study.

Attempts to differentiate pure negroes and hybrids present many difficulties and it is recognized that the criteria used are inadequate. Further separation of the hybrids into the subgroups resulting from successive intermixtures with whites or blacks offers greater difficulties and permits less definite conclusions.

<sup>1</sup> Address by the retiring vice-president for Section H, American Association for the Advancement of Science, at a joint session with the American Anthropological Association, New York, December 29, 1928.

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Science News .....

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Davenport and Steggerda have separated two groups, "blacks" and hybrids or "browns" as they designate the mixtures. Herskovitz has recognized subgroups of the hybrids. While urging the necessity of differentiating subgroups (for which a satisfactory method is yet to be found) the purpose of this paper will be served by the use of the terms "blacks" for full-blood negroes and "browns" for the hybrids.

The following questions which are under discussion and are familiar to anthropologists as well as sociologists are offered in illustration of my contention that the solution of problems of the American negro rests in large measure upon knowledge of his constitution.

A matter which has attracted much attention and upon which there is now an extensive literature is the migration northward of the colored man. The movement from southern farms to northern cities has been active since 1910. It is a phenomenon of great economic significance from several standpoints—the substitution of white by negro labor, the reaction to limitation of immigration, the adaptability of the colored man in industry, etc. It is a matter also of biological interest. The question has arisen: "Can the colored man live in the north?" The answer is complicated by many factors: the sort of occupation; residence, whether rural or urban; sanitation of home and working conditions; the previous health of the migrant, etc. In attempting to answer the question it seems to me obvious that the first operation demanded is an analysis of the groups of immigrants in terms of racial constitution. Are both blacks and browns entering northern states? If so, what is the ratio of blacks to browns? If the blacks are so few that they can be regarded as negligible the question is reduced to: "Can the brown survive in the north?" which is a quite different proposition. If, however, the pure-blood negroes are entering northern latitudes in considerable numbers relative to the hybrids. then the factors of occupation, residence, sanitation, etc., must necessarily be determined separately for each racial element, in order to approach a fair answer to the question of the colored man's ability to survive in the north. If it is true that differences exist in the negro and the brown respecting immunity to certain forms of disease, and if the southern colored man is exposed to these diseases in the states into which he has entered, then the expectation of differential morbidity and differential mortality would be justified. Evidence as to which elements are, and which are not, resistant to these diseases might be disclosed. Such differentiation giving precise and important information toward the solution of this problem is possible only when the racial constitution of the immigrant groups is recognized.

Beginning with the year 1850, the United States census presents figures on both negroes and mulattoes. The term mulatto is unfortunate since it has a specific meaning and is not applicable as a general name for the group of hybrids as a whole. Furthermore, because of the known technical difficulties encountered in separating blacks and browns, already referred to, the census figures can not be regarded as very accurate. Nevertheless, the recognition of these constitutional types in an official record is of great importance. Improvement and ultimate perfection of diagnostic technique, I have no doubt, will be attained, and will form an important and available source of vital statistical material.

Many uses of such data will occur to any one: to learn the ratio of brown to black population in successive decades, to determine the proportion of either to whites and to the total population, and for calculating the rate of increase of these biologically distinct elements, etc. A matter which has become apparent through the census reports is the decline in the rate of increase of both white and colored constituents since the first census was taken in 1790. The rate of increase in the white population has been greater. even after subtracting the annual accessions to it by foreign immigrants, than that of the colored. Since the year 1880 the decline in the colored rate of increase has been rapid-from an increase in 1880 of 34.9 per cent. of the previous decade, to 6.5 per cent. in 1920. The differentiation of browns and blacks in the census reports based on improved methods of examination inspires hope of ultimate success in discovering causes affecting the decline in the rate of increase, e.g., by showing possible differences in the rate correlated with constitution and geographical distribution.

Very little is known about the birth-rate of the American negro and nothing concerning the differential birth-rates of blacks and browns. Records giving the necessary information in this important question are only now becoming available: the registration area for births in 1916 included only one southern state. To-day the area does not include Texas (with a large colored population) and New Mexico where the laws are under trial, nor Nevada and South Dakota. Georgia and South Carolina were added to the birth registration area this year; Missouri in 1927, Even after all the states have been included, one decade, at least, must elapse before a set of figures on the birth-rate comprehensive enough for investigations of the American negro can be used with confidence.

It is hardly necessary to draw attention to the dependence upon a knowledge of the birth-rate for

the solution of many problems of scientific interest and of practical importance: the sex ratio of the new born in the brown and in the negro; the differential infant mortality in these types; the incidence of disease and the cause of death in infancy.

A phenomenon which demands careful study, for which, without doubt, the preliminary fundamental operation of separating the negro and hybrid is indicated, is the rise in death-rate of the colored man in early middle life. Phthisis is suspected as the principal cause, and there is much evidence now that unsanitary surroundings exert a powerful influence. If we knew to what extent each element of the colored population suffered by this untimely entrance of death, we should have in our possession important evidence to make use of in discovering the various factors entering into the phenomenon: perhaps, for example, a correlation is present between sanitation and the constitutional type, whether pure blood or mixture.

Further illustrations pointing to the necessity for studying the racial constitution in connection with outstanding problems of the American negro may be cited in the domain of medicine.

Malarial disease is a tremendous factor in crippling industry in the south. The malady not only physically incapacitates but dulls ambition, destroys enterprise and lowers the morale. The stigma of "laziness" falls upon a malaria-infected population.

There is a persistent and wide-spread belief that in a certain degree immunity from malaria characterizes the negro. Hirsch<sup>2</sup> in studies of the geographical distribution of disease brought out evidence of the relatively high resistance in the adult African negro against malarial infection, but believed that his immunity was acquired. Mary Kingsley<sup>3</sup> has commented on the lesser resistance to malaria of American negroes returning to Africa than that in evidence among native Africans. Stiles4 writes of the relative immunity of the American negro to malaria in pointing out the black man's part in spreading the disease. Many references to the existence of a certain degree of malarial immunity in the negro appear in the literature. Finding the incidence of the morbidity and mortality of malaria in blacks and in browns might be expected to show differences if, as is claimed, the negro is partly immune, the expectation, perhaps, being a higher incidence in the hybrid because he is in less degree a

"Pulmonary tuberculosis is by far the most important single cause of death among the colored, having a rate of 202 per 100,000." The rate given<sup>5</sup> for whites is 85.7. These figures from the death registration area of the southern states are of the year 1920. According to the most recent report of the Metropolitan Life Insurance Company<sup>6</sup> the improvement in the death-rate from tuberculosis has been slight in the case of negroes in the last three years, but shows a marked gain when compared with earlier records.

It has been remarked that the discrepancy in susceptibility to tuberculosis between whites and negroes proved by many observations is too great to be charged to differences only in the sanitary surroundings and that it indicates the probable influence of constitutional weakness in the colored man. Does the brown man offer a greater or lesser resistance than the black negro? This question is of interest when the negro's ability to live in cities is considered.

One other reference to the question of differential immunity: the resistance of the negro to infection by yellow fever is recorded again and again in lay and medical literature. Recent references are cautious regarding this racial immunity. Yellow fever has been nearly eradicated from the western hemisphere but is still a menace in parts of the eastern hemisphere where the white man has economic interests and responsibilities. How does the negro in yellow-fever regions react to the virus? Has he acquired a tolerance or is there a constitutional resistance to infection which saves his life when the white man exposed to the same poison would succumb?

Very interesting observations have been published concerning the blood vascular system of the negro. Data on blood pressure indicate that this tends to be lower in native African negroes than in Europeans. Donnison<sup>7</sup> has observed a consistently lower systolic and diastolic pressure in African negroes from forty years of age and upward as compared with whites. Hypertrophy of the heart was found to be exceedingly rare. Davenport8 has given the incidence among drafted men in the U.S. Army during the World War as 4.39 per 1,000 for negroes and 2.86 for white men. It has been asserted more than once that cardiovascular diseases are correlated with civilized life, a reaction to the nervous strain. Whatever the cause of the frequency of hypertrophied heart in the American negro, the question is pertinent here respecting its incidence in blacks and browns: are the latter less subject to enlarged heart and high blood pressure than are the full-blood individuals?

Of all the questions touching the American negro, that concerning his intellectual ability is of the highest

<sup>&</sup>lt;sup>2</sup> New Sydenham Society's Publications, 1: 197.

<sup>3 &</sup>quot;West African Studies," p. 54.

<sup>4</sup> Bull. North Carolina Bd. of Health, 23: 33-39, 1908.

<sup>&</sup>lt;sup>5</sup> Public Health Bulletin, No. 174, 1928.

<sup>&</sup>lt;sup>6</sup> Statistical Bulletin IX, No. 10, October, 1928.

<sup>7&</sup>quot;The Blood Pressure in African Natives," Lancet, 216, No. 5497, p. 6. 1929.

<sup>8&</sup>quot;Defects in Drafted Men." Table xxxvi. 1920.

interest, both theoretically and economically. Investigations of this problem, complicated as it is by intricate environmental factors that are often subtle and inconspicuous, have vielded but scant returns in proportion to the effort expended. Something has been learned in a rough and unscientific way of the colored man's mentality by observation of his brief experience in contact with civilized life. In entering into this new environment suddenly, without a racial experience of a long period of struggle and gradual transformation, such as has been the history of the white race, what are the colored man's chances of fitting into the white man's scheme of things? Is the pure-blood negro so stabilized in his nervous organization, in racial habits, as to be limited to fewer lines of thought and work and cooperation in civilized life, or does no such restricting influence exist in his constitution?

In certain recent studies of the mentality of the colored man, a selection of groups based on racial constitution has been carefully considered and in a number of instances carried out as accurately and completely as the methods for obtaining the criteria would permit. Distinguishing the less negroid from the more negroid is about as much as can be expected from the present technique. Of the two groups separated, one will contain all hybrids, the other pure-blood negroes and probably some hybrids. Even this imperfect separation affords a fairer basis for subsequent studies of ability than was given when no distinction at all was made between blacks and hybrids. It is obvious, however, that the analysis must be pushed much further with the expectation eventually of determining the kind and amount of racial mixture present in a given individual.

May I at this point digress somewhat from the argument in order to refer to the deduction drawn from the history of the black race, namely, that the mulatto is superior to the pure-blood negro, and to mention the factor which beclouds this conclusion, called by Reuter9 the "cultural advantage of the mulatto." Quoting Reuter: "Speaking generally, the intellectual class of the race is composed of mulattoes; a black man in the class is a rather rare exception." Reuter argues that the mulatto's superiority should not be accounted for solely on the basis of the white element in his constitution, since he has enjoyed cultural advantages throughout the period of slavery and continuing to the present time, which have been denied the black man. Variations of the cultural advantage in any degree whatsoever, whether in the home life or in school, must influence the behavior in childhood

<sup>9</sup> "The American Negro," ed. by Clyde L. King, Am. Acad. Polit. and Soc. Sci. 1928.

and exert far-reaching effects upon progress and success in later life. $^{10}$ 

The few illustrations offered, will, I think, suffice to make clear my purpose, viz., to invite attention to the factor of race constitution which, in the study of the problems of the American negro, has not received sufficient recognition as being essential to a true solution. The examples presented have been taken from the large series of problems of economic importance and were selected because of this fact. My argument can, however, be sustained by another category of examples chosen from the field of theoretical questions of broader scientific interest, well known to the anthropologist and psychologist.

Criticism can justly be aimed at the practice of drawing deductions concerning traits and tendencies of the American negro from observations taken on random groups of individuals of varying racial constitution. Statistics dealing with the colored man are unreliable for inferring tendencies of population growth, adaptation to urban residence, progress in school, etc., when the groups dealt with have not been selected on the basis of uniform racial constitution. The application of results under such circumstances to projects for alleviation, for education, for residence, may lead to serious errors and wasted resources.

10 Emphasis has been laid upon this point in the outline of a plan for the study of the American negro which has been discussed informally by certain anthropologists and psychologists, of which the following is an abstract.

Objection is raised to the mental tests at present in use because they measure acquisition rather than native ability. What the individual can do is determined by many factors including his mental ability, education and the cultural factors of his home and social life. The test comparing the mental capacities of two individuals or groups is competent when both have had equal opportunities to learn what the test requires and when the conditions under which both take the test are the same. In comparing negroes and whites the preliminary conditions are not satisfied when the two groups have the same school curricula; they must have the same home conditions as well. The cultural background must be equalized for both. In order to bring this about it is suggested that an institution be established into which colored infants could be taken at birth or shortly after, there to be reared and educated under the best conditions. The mental development of the infants and children could be determined and compared; comparison of physical measurements under these conditions would be more reliable than those taken when the nutrition of the child is not controlled. There would be the advantages of a permanent staff maintaining definite problems, developing others and refining methods all of which might be applied in extramural work; training staffs for African work and employment of methods as a basis for the study of other races. In order to carry through such a plan, it need scarcely be mentioned, a very great expense would be entailed: adequate grounds, suitable buildings properly equipped, a relatively large staff and many experts of the highest grade. The institution must be permanentyears would be required for the collection and study of

Progress has been made toward differentiating negroid types in our population through the work of government bureaus and by local health boards. Anthropologists of the United States have made valuable contributions in recent years to the subject of the black hybrids; the following among others have shown especial interest in this province of research: Bean, in defining negro types in America; Davenport, in his Jamaica studies; Estabrook and McDougle, in their analysis of mongrel Virginians; Herskovitz, working in urban negroid colonies; Hooton, by collecting negroid family lineages; Hrdlička, by studies of colored children and of African colonies; Schultz, investigating the negro fetus: Todd, in anatomical research upon the negroid skeleton. These lines of research, so fundamental and so necessary in connection with other problems of the negro, should be encouraged by the most generous support.

Progress in the solution of negro problems will follow the extension of the registration area for births and deaths into those states where at present the laws are not established. Continuation by the census bureau of efforts developing more fully plans for cooperation with the anthropologists would contribute materially to the at present incomplete knowledge of the racial constitution of our population. The Public Health Service is in position to furnish more accurate information on such questions as that of immunity whenever the basis of racial constitution has been laid. The great insurance companies are establishing valuable records available for research, and their cooperation is essential in learning the characteristics peculiar to the negro and to the brown hybrid relative to disease.

It seems to me that there is no problem before American anthropologists more urgent or more fundamental than that of the race mixtures represented in our American negro hybrids. Delay in attacking this problem will entail an increase in its complications. Vital questions are awaiting solution in the absence of a definite knowledge of race constitution.

ROBERT J. TERRY

DEPARTMENT OF ANATOMY,
WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

#### THE AGRICULTURAL EXPERIMENT STATION—AN INSTITUTE FOR FUNDAMENTAL RESEARCH IN RURAL AFFAIRS

I

Nor many years ago scientists discussed with sometimes more and seldom less heat the comparative merits of pure and applied science. To-day the reverberations of those thunderous discussions grow gradually fainter and fainter. But do not be deceived! The arena of the discussion has merely shifted, and the shift has been only on the pages of the dictionary. Research, impeccably pure in quality, emanating, nevertheless, from the realm of applied science, has effectively gassed the gunners who proclaimed applied science as necessarily impure and defiled. Of course not all of it is pure. Some of it has been, is, and always will be not only impure but impractical, unapplied and perhaps even useless. On the other hand, purity seems no longer to be the exclusive character of the sources of unapplied science, since it is obvious that much of the science springing from such sources is inspired by the hope of practical use, and caustic critics even add that much of our pure science can not claim a high degree of purity, if quality be the criterion.

It has therefore become convenient and popular to make a new distinction involving a word found on an earlier page of the dictionary. Fundamental science is now claimed as the peculiar field of those not sordidly engaged or, more accurately perhaps, not definitely paid for their labors in the field of applied science. I have never noticed any insuperable averseness on the part of these same fundamentalists to put their fundamental science to such occasional and profitable use as experts are wont to put it-for appropriate fees. Conversely, it is argued by these fundamentalists in science that institutions and individual scientists whose research is tarred by the stick of usefulness are somehow or other outside the pale of fundamental science, incapable of its pursuit or positively unethical in attempting to invade this sacred field.

Presumably the chief workshop for fundamental science has been located in the general science departments of our universities and colleges, where teaching is supposedly the primary function and research a "by-product of teaching." Where such departments are of sufficient size or enjoy especially generous support, the teaching burdens may be comparatively light or entirely lacking; and opportunity is thus afforded for personal research, together with that more or less vicarious type of graduate student research which has in its turn the by-product of a Ph.D. I have the greatest respect and profoundest admiration for the contributions such departments have made, not merely as the chief or well-nigh only training schools of investigators, but also for the numerous and valuable contributions they have made and are still making in the field of research itself. And I am also one who believes that the academic freedom of the college science teacher, if and as expressed in his unhampered freedom in the attack