

fore, this framework of a research organization is already provided. Reciprocally, a staff which is active and alert in handling the live problems of the technical professions is best able to steer its students, as apprentices, into these professions. There is urged, therefore, a more adequate development of our research program along lines that will increase the value of the direct contributions of our staff and advanced students, and whose stimulating influence will permeate down into the undergraduate years.

Despite the splendid record of past accomplishment and the impressive current program of creative activities, it is a fact that we are not making full use of our opportunities. We are able to develop only a few of the promising ideas which are continually occurring to our staff, and we handle those which we do develop inefficiently through lack of facilities. We are in the situation of possessing a great reservoir of scientific discovery, invention and technical skill, without the relatively minor but essential subsidiary help required to exploit this reservoir. We are an organization, which, because of its educational program, has all the overhead necessary for a great research program but which lacks the funds for operating expenses on a scale efficiently to utilize this overhead.

No educational institution in my knowledge has ever approached its possibilities for contributing to public welfare by giving attention to the efficiency of its research program comparable to that which it gives to its teaching. No institution has such great possibilities in this direction as the Massachusetts Institute

of Technology. I can imagine no investment for public welfare so likely to secure large returns as one which would permit the latent creative powers of this institution to become really active.

We have done everything that we know how to do to make our teaching program effective and our administrative organization efficient, but by and large we have let the research activities play a subsidiary rôle, supported by whatever funds were left over. Under the circumstances which have existed, this has been necessary and proper. But the fact remains that we have a great opportunity which has not yet been adequately realized. If we could find a few hundred thousand dollars a year to exploit this opportunity, I am as certain as that I stand here that a new epoch in public service by an educational institution would follow.

Amid the difficulties to educational institutions which arise from various current political trends, it is important that the best privately controlled institutions shall maintain the educational leadership and traditions for the benefit of *all* education, governmentally controlled and private. The criterion for survival of a private institution in these difficult days will be that it offer a quality of education and public service definitely superior to that obtainable in governmentally operated institutions. This is the challenge of the future to those who administer the affairs of private institutions and to those who wish such institutions to endure as vanguards and bulwarks of a free and progressive social order.

## PLAIN STATEMENTS ABOUT RACE

By Professor EARNEST A. HOOTON

HARVARD UNIVERSITY

### INTRODUCTION

MAN is a predatory mammal which has achieved dominance over all vertebrates by a ruthless use of superior intelligence. From prehistoric times this ingeniously selfish biped has realized that the greatest gain of power and booty lies in preying upon his own species. It is easier to seize wealth than to create it. Yet a certain quality of benevolence has been at variance with simple brute predaciousness throughout the long struggle for survival and domination which is the history of this super-ape. Thus, man has evolved certain ideals of humanitarian behavior which often manifest themselves in disinterested and self-sacrificing acts on the part of individuals and even of social groups. This apparently innate generosity may or may not be some sort of social extension of a maternal instinct. Through centuries of painstaking cultivation and encouragement it has been built up to a point where it

has sometimes seemed to bid fair to dominate human behavior and thus to inaugurate the millennium. Unfortunately, human altruism seems to disintegrate in political and economic stress, except as an individual phenomenon. It is not a common characteristic of the large political and social groups which we call nations.

Man incessantly seeks to compromise with his conscience or with his innate humanitarianism by rationalizing his predatory behavior. He must convince himself that the act of grabbing is somehow noble and beautiful, that he can rape in righteousness and murder in magnanimity. He insists upon playing the game, not only with an ace up his sleeve, but with the smug conviction that God has put it there.

We need not speculate upon the arguments with which primitive man presumably convinced himself that he was glorifying God by getting dominion over "the fish of the sea, and the fowl of the air, and over

every living thing that moveth upon earth." Possibly the necessity of self-justification arose only when civilization had advanced to the status of cannibalism and slavery, and man had begun to make a real business of battenning upon his own kind.

Certainly the specious excuse of racial difference has served ever since Ham saw the nakedness of his drunken father, and Noah, awakening from wine with a bad hang-over, exclaimed "Cursed be Canaan, a servant of servants shall he be to his brethren!" From immemorial antiquity hereditary variations of bodily form have been made the basis of charges of racial inferiority in mentality and in capacity for civilization. With this contemptible subterfuge our European ancestors justified their enslavement of the Negro and their virtual extermination of the Indian and of many other primitive peoples. The "White man's burden" has been mainly one of hypocrisy. With no more savage worlds left to conquer (save only Ethiopia), the White man has turned this same vicious argument to use against his own kind, committing more crimes in the name of race than have ever been perpetrated in the name of liberty.

Under these circumstances, a physical anthropologist, who has devoted most of his research activity to the study of race for nearly a quarter of a century, desires emphatically to dissociate the finding of his science from the acts of human injustice which masquerade as "racial measures" or "racial movements" or even "racial hygiene."

I do not claim to speak for all physical anthropologists, many of whom are either too wise or too timid to speak at all upon this subject, preferring to pursue their researches in academic seclusion, rather than cry their wares in the marketplace and run the risk of being pelted by the rabble. For myself, I prefer to be the target of rotten eggs, rather than to be suspected as a purveyor of that odoriferous commodity.

I therefore intend to assert bluntly and simply what I believe to be the best consensus of scientific anthropological opinion upon what races are and what they connote.

(1) A "race" is a physical division of mankind, the members of which are distinguished by the possession of similar combinations of anatomical features due to their common heredity.

(2) There exists no single physical criterion for distinguishing race; races are delimited by the association in human groups of multiple variations of bodily form and structure—such as amount of pigment in hair, skin and eyes, form of the hair, shape of the nose, range of stature, relation of head length to head breadth, *et cetera*. These criteria are of mainly hereditary origin, but none of them is wholly impervious to environmental influences, such as the effects of climate,

diet, exercise and altitude. It follows that race is essentially a zoological device whereby indefinitely large groups of similar physical appearance and hereditary background are classified together for the sake of convenience.

(3) Anthropologists have found as yet no relationship between any physical criterion of race and mental capacity, whether in individuals or in groups.

(4) While it is conceivable that physical races may differ in psychological characteristics, in tastes, temperament and even in intellectual qualities, a precise scientific determination of such differences has not yet been achieved. Such discrimination, if it is possible, must await the development of better anthropological and psychological techniques.

(5) Race is not synonymous with language, culture or nationality. Race is hereditary; language is a cultural acquisition. A Negro may speak English as his native tongue. There is no Aryan race; Aryan is a term applicable only to a family of languages spoken by populations heterogeneous in race, nationality, religion and other aspects of culture. There is no "French race" and no "German race," properly so-called. Such terms imply nationality, use of a common language and some degree of conformity to a pattern of culture, but nothing more.

(6) Physical anthropologists, as yet, are unable precisely to grade existing human races upon an evolutionary scale, upon the basis of the sum total of their anatomical deviations from apes and lower animals. Each race displays a mixture of advanced and primitive characteristics. A definitive rating of the evolutionary rank of each human race presupposes the completion of many anthropological and physiological researches, which, as yet, have not even begun.

(7) A "pure" race is little more than an anthropological abstraction; no pure race can be found in any civilized country. Racial purity is restricted, at best, to remnants of savage groups in isolated wildernesses. The present races of man have intermingled and interbred for many thousands of years, so that their genealogical lines have become inextricably confused. Physical classifications of race merely attempt to delimit groups of approximate physical uniformity, with a restricted assumption of similar heredity.

(8) The composite origin of most of the existing races of man is demonstrable. Thus the Polynesian represents a stabilized blend of White, Negroid and Mongoloid elements. The so-called Nordic race is probably a hybrid derivative of several strains present in Europe during the glacial period, to which have been added in historic times Alpine, Mongoloid and other racial elements (carried by Lapps, Finns, Slavs and other peoples who have mixed with the inhabitants of the "Nordic" area).

(9) The study of the results of hybridization between the most physically diverse of modern races—such as the Negro and the Nordic, or the Mongoloid and the brunet Mediterranean White—has not demonstrated that fertility is decreased, or vitality diminished, by such crossings. The hybrids exhibit a wide range of combinations of features inherited from both parental races, but no degeneracy, provided that both parental stocks are normal. It is probable that racial susceptibilities and immunities to certain diseases are different in hybrids from those obtaining in the parental races, but this subject has been insufficiently studied.

(10) Within each and every race there is great individual variation in physical features and in mental capacity, but no close correlation between physique and mentality has been scientifically demonstrated. Knowledge of human heredity is still far from perfect, and altogether inadequate as a basis for attempts to secure specific combinations of physical and mental features by selective breeding. A scientifically valid program of eugenics, at the present, must be limited to the restriction of breeding among the insane, diseased and criminal, and to the encouragement of reproduction in individual families with sound physiques, good mental endowments and demonstrable social and economic capability.

The scientific method of determining the racial composition of the United States or any other country is to appraise the distribution of type combinations of physical characters in the individual which are known

to be hereditary racial features. The sorting of these types is initially made without reference to parentage or national origins of the persons studied. Studies of these physical types in the Old American populations, in the children of immigrants from other countries and in residents of alien birth does not indicate that the racial composition of the United States has been profoundly modified by recent immigrations. Incoming types are virtually identical with those represented in the population resident here for several generations, although the proportions are somewhat modified.

Each racial type runs the gamut from idiots and criminals to geniuses and statesmen. No type produces a majority of individuals from either end of the scale. While there may be specific racial abilities and disabilities, these have not yet been demonstrated. There are no racial monopolies either of human virtues or of vices.

I believe that this nation requires a biological purge if it is to check the growing numbers of the physically inferior, the mentally ineffective and the anti-social. These elements which make for social disintegration are drawn from no one race or ethnic stock. Let each of us, Nordic or Negro, Aryan or Semite, Daughter of the Revolution or Son of St. Patrick, pluck the beam from his own eye, before he attempts to remove the mote from that of his brother. Every tree that bears bad fruit should be cut down and cast into the fire. Whether that tree is an indigenous growth or a transplantation from an alien soil, matters not one whit, so long as it is rotten.

## OBITUARY

### CHARLES HENRY STANGE

By the death on April 26, 1936, of Charles Henry Stange, dean of veterinary medicine and professor of veterinary hygiene at Iowa State College, veterinary medicine has lost one of its foremost educators and research directors. He was a native Iowan, born in Cedar County on May 21, 1880, and, while a relatively young man at the time of his death, was recognized as a leader in the field of veterinary medical education.

Only a few months after his graduation from Iowa State College in 1907, he was recalled to accept a position on the veterinary staff. Later he pursued work at the University of Chicago in pathology, which was his field of special interest. In 1909 he was made dean of veterinary medicine at Iowa State College and for twenty-seven years devoted his tremendous energies to problems of educational administration and the development of the oldest state college of veterinary medicine in the United States. His efforts were successful, and upon his death he left as a monument to himself one of the outstanding American colleges of

veterinary medicine, together with an affiliated institute for research in animal diseases. The latter, under his direction, has contributed much in recent years to knowledge concerning intestinal and nutritional diseases prevalent in swine and poultry in the Middle West.

Dean Stange's interest in the advancement of professional veterinary medicine was profound, and he recognized that the advancement and recognition were dependent upon the improvement of educational standards in the colleges of veterinary medicine. He spoke and wrote much on the subject, and in 1928 was delegated by the Bureau of Education of the Department of the Interior, Washington, D. C., to conduct a survey of the veterinary colleges of the United States. His report has had much influence upon recent improvement in veterinary educational standards. At the time of his death he was actively engaged as a member of the Committee on Education of the American Veterinary Medical Association in conducting a detailed examination of the veterinary colleges of the United