

impression one gets from this is that the minister's refusal to make an investigation was due to his support of Mr. Stefansson's side of the controversy.

To avoid any misconception of the minister's motives in this matter, I wish to give you the following facts:

An inquiry was asked for not by one of the parties to the controversy alone, but by Mr. Stefansson as well.

The minister declined to grant the request of either party for the reason that no good could come of such an inquiry and much harm might be done. Too much publicity, unfortunately, had already been given to the differences that had arisen between members of the expedition and any more was highly undesirable. To avoid further publicity was the minister's only motive in refusing to grant an inquiry.

The main point on which an inquiry was asked for by the party represented by Mr. Jenness was the so-called mutiny at Collinson Point, referred to in "The Friendly Arctic." To designate this incident as a mutiny is using too strong a term, for it was a decision on the part of the so-called mutineers to adhere to instructions originally given them by the Geological Survey in the pay of which organization these men were throughout the whole expedition. One has only to reflect on what a mutiny means and he will realize that if there were sufficient grounds for such a charge steps would have been taken long before this by the government to punish the offenders.

I make this explanation in justice to Mr. Jenness and the men associated with him and trust that no more may be heard of a controversy that has already gone too far and a continuation of which can do no one any good.

CHARLES CAMSELL
Deputy Minister

To the Editor of SCIENCE: It has been pointed out to me that in my comment on the article on "The Friendly Arctic," published over the signature of Diamond Jenness in SCIENCE for July 7, 1922 (see SCIENCE, March 23, 1923), I have made a statement which, although clear in itself, is ambiguous because of its context. I said: "The Minister of Mines (the head of the department in which Mr. Jenness is employed)

declined to investigate written charges submitted by Mr. Jenness and four or five of the men who had been in the section of the expedition that disobeyed instructions."

I meant to say exactly what the words here say when divorced from their context. But a sentence earlier in the same paragraph leaves the statement open to being interpreted as one describing an action where the Minister of Mines decided in my favor as against Mr. Jenness and his colleagues. This was not the case and I did not mean to imply any such thing. The position of the Minister, as explained in a brief letter to me and more fully in conversation by himself and by the Deputy Minister of Mines, Mr. Charles Camsell, was that it appeared to him that no investigation was called for by the charges as presented or by the facts in so far as he had investigated them.

In this connection his position is made all the clearer by remembering that I had already asked for an investigation before the charges against me were submitted to the Minister of Mines (the Honorable Charles Stewart) and that I telegraphed to the government immediately on seeing the newspaper account of the charges submitted to Mr. Stewart, urging that the investigation asked for by Mr. Jenness and his colleagues should be promptly and thoroughly carried out. The minister, accordingly, declined not only to make the investigation asked for by my opponents but declined also to make the same investigation when requested by myself. Thus his attitude remains merely one of aloofness from the situation created.

VILHJALMUR STEFANSSON

SCIENTIFIC BOOKS

A Study of American Intelligence. By CARL C. BRIGHAM. Princeton. Princeton University Press, 1923, pp. xxv, 210.

THE purpose of this volume is "to discuss the relations of the army measurements of intelligence to nativity and residence," to analyze, further, the intelligence of the race and nationality groupings uncovered in our recent draft army. The data are taken from the "Psychological Examining in the United States Army" (Memoirs of the National Academy, XV).

The book is divided into two distinct treat-

ments. Part I, occupying one third of the whole, is a review of the already familiar material on the make-up and statistical reliability of the army mental tests. Part II contains the statistical analyses of the army test results as they bear on race and nationality. Figures showing the overlapping of officer scores on those of the native white draft and the foreign born draft are presented. Following these are elaborate tables of the average scores, with P. E.s, of draftees from various nativity groupings. The main theses of the work are here put forth: (1) to discover the differences on the average, with the P. E.s of the differences, in the intelligence scores of the men in the army from various European countries; (2) to examine the correlation of length of residence with average scores in the tests for these same groups.

The findings under the first topic show a decided difference in the test-results for the North European immigrants as compared with those from Southern and Eastern Europe. Professor Brigham, moreover, presents negative data on the alleged language handicap in the testing of the latter groups.

On the second head, the analysis of the materials in terms of years of residence in the United States shows a "steady increase in the average scores with increasing years of residence" (p. 89). Those foreign born who have been in this country over twenty years actually exceed, slightly, the average for the native born white draft.

In interpreting his data further, the writer classifies his groups under the familiar headings of Nordic, Alpine and Mediterranean races. He shows that there has been a marked change in the "racial" extraction of our immigrants in the past two or three decades. The swing has been clearly from Northern to Southern and Eastern Europe. By resorting to the Gobineau race hypothesis held by Madison Grant, Lothrop Stoddard, Charles W. Gould and others the conclusion is arrived at that this shift in the source of European immigration has brought inferior races into this country. The data presented from the army intelligence tests are held to support this as witnessed in the large differences between the scores of nationalities from the former section as compared with those from the latter.

Before concluding his work, the ubiquitous problem of negro mentality is introduced and comparisons made with the European nationalities and the white native born draft and officers. The negro actually ranks below the poorest of the European nationalities: Russia and Poland. (Thus is the white race saved from complete disgrace!)

The conclusions, therefore, to which Professor Brigham would bring his readers may be stated briefly as follows:

(1) The army mental tests are adequate measurements of innate intelligence. The alleged handicaps of the tests for the foreign born draftees do not exist due to the large use made of beta and the performance tests.

(2) The average scores for the native born draftees exceed those of the foreign born.

(3) Further analysis of the foreign born, however, reveals important differences between those of Northern and those of Southern and Eastern Europe.

(4) Appeal is made to the race hypothesis of the Gobineau school to show that the Alpine and Mediterranean races are innately inferior in mentality to the Nordic race. The northern immigrants belong predominantly to the latter, the southern and eastern immigrants to the other two.

(5) Moreover, the change in the composition of the European immigrations in the past two decades has brought an increasingly preponderant inferior racial stock into this country.

(6) Finally, it follows from this that the mixture of the newly arrived inferiors with the formerly arrived superiors will end in a decrease in the native intelligence of our American, *i.e.*, by implication, Nordic stock. The existence of a large body of low-grade mentalities among the negroes complicates the problem still more. Hence steps should be taken to insure the selection of future immigrant strains of higher order, again by implication—the Nordic race only.

Space prevents an adequate critique of such far-reaching results and interpretations. The following aspects seem in need of mention, first in regard to Part I and then in reference to Part II:

(1) The statistical samples of the draftees are biased in favor of those groups of persons

who did not receive exemption for professional service, essential industries and for services of the farm-owning classes. This raises a legitimate question as to possible bias in all the results, but particularly in reference to the foreign born, many of whom must have escaped the draft because of skill in trades or need in war industries. This would leave possibly classes of these groups who did more poorly in the tests than a fair sample of their nationality would indicate.

(2) We are far from being certain that the particular make-up of the alpha, beta and Binet tests are properly weighted in regard to the elements which should go into so-called intelligence. At best we must define intelligence here, as elsewhere, as a purely statistical score in a particular test, or as it has been put, "intelligence as the tests test it."

(3) In considering the actual distributions of the individual tests in the various batteries, the large percentage of zero scores is noteworthy. In all alpha tests but one and two the number of zero scores constitutes the largest quantity for any given measure on the scale. Furthermore all the alpha tests are skewed, principally toward the lower end of the scale. None of the test distributions are "normal" in strict terms of the Gaussian curve; only the results of tests one, three and eight are even roughly so.

The beta results, in contrast to alpha, show a rather uniform skewing toward the upper end of the scale. Also the beta distributions are more variable in form than those in alpha. Tests one, two and six are roughly "normal," but still skewed to the right, tests three and five appear bi- or even tri-modal, while test seven is definitely tri-modal. The extreme complexity of multi-modal curves is well known in statistics, but these difficulties were avoided by the army psychologists in lumping together, by statistical formulae, all data under the Gaussian curve.

Professor Brigham's discussion of the Stanford-Binet tests, used for individual examination, is more critical. Even here his statement that "a rough inspection of these figures (on the Binet results of 1,047 experimental cases) shows that they give us the Gaussian normal distribution" (p. 54) will not bear careful

scrutiny as any one may discover who will take the trouble to construct a line graph of the findings as he reports them. We must, then, take exception to his statement that "the results obtained from the Stanford-Binet examination may be taken as entirely reliable without question" (p. 54). In view of the accumulating criticism of the entire testing movement one can not help feeling that this assertion is, to say the least, overdrawn. It is only fair to the writer, on the other hand, to note that his use of the term "mental age" "as a score not as a diagnosis" accords with sane practice. He properly criticizes those sociologists, publicists and others who have gone about the country in misconception glibly saying that the average American has the mental ability of a thirteen year old child. In general, however, the writer ignores such essential psychological problems in mental measurement as have recently been raised again by Boring and Yule, accepting, on the whole, the purely statistical approach to his problem.

It is Part II which presents even greater difficulty in criticism. The naïve assumption of an anthropology which scientific workers abandoned two or three decades ago, the confusion of issues by reasoning from intelligence scores of immigrant stocks in this country to the intelligence of the entire racial stock from which they sprang and the implicit one-hundred-per cent. Americanism¹ in the entire discussion of the results makes one pause to wonder whether the book is to be considered science or special pleading. Looking closely at the difficulties in the treatment we note the following:

(1) The novel manner in which Professor

¹ For instance, note the following easy manner in defending the clearly admitted speed element in the tests: "It is sometimes stated that the examining methods stressed too much the hurry-up attitude frequently called typically American . . . If the tests used included some mysterious type of situation that was 'typically American,' we are indeed fortunate, for this is America, and the purpose of our inquiry is that of obtaining a measure of the character of our immigration. Inability to respond to a 'typically American' situation is obviously an undesirable trait." (p. 96). What kind of trait? Mental or emotional? How long does it take to acquire the "typically American" trait? etc.

Brigham has dealt with the question of length of residence of the immigrant groups in this country. He writes: "The results of the psychological tests of foreign born individuals classified according to length of residence . . . indicate definitely that the average intelligence of succeeding waves of immigration has become progressively lower" (p. 155). He examined the average scores of the various foreign born draftees whose length of residence was classified into five year periods. As noted above there was a steady decrease in the average score with decrease in length of residence. This is not surprising, but the interpretation is quite so. Because the tests show this difference are we to assume that the intelligence of our immigrants, especially those from Southern and Eastern Europe, was actually lower in 1917 than in those who came over in 1897? Sociologists and economists who have investigated immigration have never given us any evidence whatsoever that the sources of immigration, either in terms of geography, economic status or intellectual classes, have altered in the past twenty years to the extent Mr. Brigham's interpretation assumes. For instance, the Italian immigration of the past twenty years has pretty uniformly come from Southern Italy and Sicily, but there is no real evidence that the persons coming from those sections are growing steadily worse from the standpoint of intellectual capacity. We need comparative studies over a much more extended period than the present writer has allowed. It seems to the reviewer that first of all the obvious explanation should suggest itself: the men who were in the draft army whose residence in this country was five years or less came over practically as adults, as we go back further and further in length of residence it means that the persons tested were increasingly younger in age upon arrival in this country, hence they have been longer exposed to American language, customs and culture. It is true, of course, that Professor Brigham has factored out some of the cultural-language difficulties by comparing the scores of non-English speaking Nordics with non-English speaking Latins and Alpines, finding rather marked superiority of the former over the latter. Again this can hardly be interpreted on his hypothesis until we

realize the relative speed of assimilation of the non-English speaking Nordics as compared to the Latins and Alpines until, in short, the cultural factors are controlled. The reviewer does agree that the alleged language handicap has been over-emphasized, but he believes we ought not to pass beyond this to the assumption of decreasing mentality in the quinquennial groups of immigrants until more evidence is at hand than the army data give.

(2) His assumption that the samples of immigrants tested represent the mentality of the racial groups from which they sprang is peculiarly pernicious, especially in view of the fact that on page 155 the writer himself so much as agrees that it is dangerous to reason from the intelligence of draftees to that of immigrants and thence from immigrants to races in Europe. He states: "There are so many variable factors determining immigration that the immigrants can not themselves be taken as representative of the country as a whole." Nor, of course, the racial stock as a whole. Yet in spite of his own frank recognition of this difficulty, he proceeds to an extended discussion of races in Europe ending by making an attempt to calculate the racial proportions for each separate country from which foreign born draftees were chosen. For help here he depended on unnamed collaborators.

The entire matter of race criteria is most complicated, as present students of anthropology well know. We are discovering that there are marked elements in all European peoples which go behind the older divisions into Nordic, Alpine and Mediterranean stocks. Furthermore, the criteria for these three stocks are very difficult to define. The most prominent standard for the Nordic is dolichocephalic head-form coupled with blondness. Brigham accredits Sweden as being one hundred per cent. Nordic, yet Retzius some years ago, showed that in Sweden, although accorded by students of anthropology as most predominantly Nordic, eighty-seven per cent. of the population was long-headed and thirteen per cent. decidedly brachycephalic, or Alpine in head form. Similar difficulties are apparent in his rating on Russia and Germany.

The fact is that the whole race hypothesis for European populations has been largely aban-

done by careful workers in European anthropology. As Retzius pointed out in his Huxley lecture in 1909, there are no races, properly speaking, in Europe at all, only sub-races. Moreover, these sub-races are inextricably mixed with one another. Some writers merge the Mediterranean and Nordic strains as a common sub-race.

(3) The most serious fault with Professor Brigham's book, therefore, lies in his naïve acceptance of the Gobineau anthropology. Only the anthropological innocence of a young psychologist could have led him to quote Madison Grant and Lapouge as authorities whose theses his results support. It is by a curious logic that Professor Brigham shifts from a position critical of applying his data to race problems because of the inadequacy of his sample to one which swallows the propaganda of the believers in the Nordic Race Myth.

Moreover, the first quotations which are given from Grant and Lapouge deal with generalizations on emotional, not intellectual, characteristics of various European peoples. Yet nowhere does the writer of the present book claim to be studying character traits of his samples. He concludes that: "In a very definite way, the results which we obtain by interpreting the army data by means of the race hypothesis support Mr. Madison Grant's thesis of the superiority of the Nordic type." (p. 182)

Professor Brigham frankly accepts the extreme position of the Nordic worshippers that it was the predominant Nordic elements which gave to Egypt, Mesopotamia, Phoenicia, Crete and Greece their cultural greatness. One wonders if one dare ask if those Hittite groups in Asia who first discovered the important use of iron, a use which lies at the basis of the modern industrial world, also owe its discovery to some chance blond, dolicho cephalic Nordic who strayed, God knows how, into their midst? Yet Professor Brigham in a footnote (p. 184) writes of "The Passing of the Great Race," "The entire book should be read to appreciate the soundness of Mr. Grant's position and the compelling force of his arguments."

In summary we may say that starting off with an extremely valuable body of data on individual differences which might well serve

as suggestive points of departure for an extended study of the mental ability of immigrant groups in this country, especially through more adequate control of the language and cultural factors, Professor Brigham has unfortunately confused the issue of individual differences within groups with the average difference between groups typified by their central tendencies. As Boas long ago pointed out, the differences between members of the same race are infinitely greater than the differences between the averages of the various races themselves.

The writer could have made a strong case for the fact that we are getting certain elements of European populations which, as nearly as rough intelligence tests indicate, are not likely to enhance the mental qualities of Americans. But to obscure the issue by dragging in the race hypothesis made notorious by Gobineau and H. S. Chamberlain is to destroy the effectiveness of any arguments for eugenic reform, immigration restriction laws, or other sociological measures which might be made. Considerable differences are evident between immigrants from Northern and Southern Europe. Two hypotheses may help account for this: (1) the language handicap in the tests themselves, (2) the fact that the type of cheap, unskilled labor which has come into this country in the past twenty years from Southern and Eastern Europe is from classes in the native populations who are of intellectual inferiority when compared with the skilled tradesmen and peasant farming classes who have come into the country in the same period from Northern Europe.

To answer fully the question, however, of intellectual status of such groups careful control must be made of the factors of opportunity, education and language difficulties. There is much hope in the methods of testing being refined and improved and additions made to take in measures of character and will traits. We shall never pass to this second, advanced stage of work, however, if we rest our case as psychologists on the shifting sands of an antiquated, outworn and mythological race hypothesis.

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