Racial Theory and Genetic Ideas*

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`HE newer concept of species makes it possible to consider both the origins of mankind and a classification of mankind in a new light freed from the limitation of requiring the sterility of crosses as a test of specific difference. The fact that human migrations from early times have had a scale, a range and a rapidity unknown among animals is another biological point of the first importance. We may give up both the view that mankind originated from a single pair or from a small group and the view that the different groups of mankind originated separately from prehuman ancestors. Rather should we picture groups of beings on the threshold of a full human status, with probably differences within the group as well as between groups, scattered over a wide area as more or less mobile collecting and hunting societies forming a sort of human network over a wide area of the Old World, stretching at least through North Africa and south-west Asia. The persons in different parts of the network would probably differ, but almost any part might contain individuals similar in many characters to individuals in other parts. With development of desertic conditions in North Africa and Arabia bringing increasing settlement near rivers, some degree of isolation and a high degree of long-continued local intermarriage developed, and no doubt different variations, at least some of them adaptive. occurred in different regions, so that:

(a) A number of small remnants of diverse early types remained, sometimes perhaps degenerate, as pigmies of the African and south-east Asiatic forests, as blackfellows in Australia and so on.

(b) African, Papuo-Melanesian, eastern Asiatic and north-western groups in the Old World became distinct, while drifts to America from eastern Asia added another chapter to the story. These may almost be called sub-species.

Characters, even those used in discussing socalled race types, are nearly always both genotypic and phenotypic. Stature is closely linked with environmental factors; nose-form may have some such link, perhaps an indirect one. A penetration of characters from the north into the Congo Forest shows that stature diminishes, more rapidly than nasal index increases, along the zone of penetration. It is most probable that hot, wet conditions and *Contribution to a joint discussion of Section D (Zeology) and

* Contribution to a joint discussion of Section D (Zoology) and Section H (Anthropology) on "Genetics and the Race Concept" at the Blackpool meeting of the British Association, on September 11. poor food have prevented higher stature from persisting, but it has apparently been more difficult to alter nose-form, so we get an aureole of fairly narrow-nosed people of short stature around the wedge of narrow-nosed taller people projecting into the forest.

Shaxby has shown that skin pigmentation changes gradually from the Sudan to near the Arctic Circle, where Scandinavia yields the Nordic type, as it is called. Similar points might be made in respect of other characters. Thus the pattern of the main mass of mankind in the Old World may be said to be one of transitions in some respects between certain 'standards' in Africa, Europe, Eastern Asia, Papuo-Melanesia.

A scheme based on transitions more or less under environmental influences is, however, not much more satisfactory than a purely geographical classification; for we cannot but be impressed by the fact that almost every population consists of disparate elements that reappear or persist side by side in a population generation after generation. We cannot treat an ordinary population as a unit to be described by giving means and standard deviations for each character. Those figures often are mere abstractions. We need to try to see how bundles of characters are grouped together, what bundles occur and seem to be transmitted as entities, and how the proportionate numbers with different bundles vary from district to district. For they do differ, and we can understand this better if we remember that each of us had, in theory, 32,768 ancestors about the time of the discovery of America, and 1,073,000,000 about the time of the Norman Conquest. As marriage was largely localized, and few rural areas with persistent intermarriage had a population of 32,000 in the fifteenth century, we realize how much branches of genealogical trees must intertwine, and so how possible it is for an element, a group of characters, that got into a locality long ago, through a good number of individuals, to go on century after century in spite of some intermixture with individuals from outside, provided it has not to work against a Mendelian dominant. Needless to say, the bundle of characters need not be, and is not, exhibited by every member of the local group, nor is any claim made that all members of the group are of strictly localized descent. We are dealing only with proportions of a population.

Another necessary caveat is that the interpretation of differences between localities has to be done with great reserve unless we know from skeletons a fair amount about the back history of the district's population. Fortunately, as regards Egypt, we have the knowledge, from the work of Elliot Smith, Morant and others, that there has been a persistence of a bundle of physical characters from pre-dynastic days until ours. In Great Britain, in some areas once inhabited (c. 1900 B.C.) by the beaker-making people, the characters which distinguish their skulls are still found in certain cases among the modern population. In some areas of special isolation quite a number of people may carry and transmit a bundle of characters that seems associated with the very earliest population known from skeletal remains in Britain.

The recurrence of these bundles is more than can be accounted for by any estimate of the probability of recombinations occurring in the course of intermixture; persistence seems the more likely hypothesis and the linkage of characters in a bundle is fairly obviously a feature.

We are, then, dealing with bundles of characters inherited more or less as such; diverse bundles often existing side by side. Even an interbreeding population, therefore, need by no means form a unit, and averages may mislead seriously. A pure race with essentially uniform bundles of characters in all its members probably does not exist; indeed, it is better not to use the term race at all in view of its painful misapplication in political discussions as well as of its inherent biological difficulties attached to the use of this word.

Obituary

Sir Edwin Deller

THE death of Sir Edwin Deller has robbed the University of London not only of a great administrative head, but also of a man beloved by all who knew him well. He died on November 30, from injuries received in an accident at the new buildings of the University in Bloomsbury.

Born at Paignton in 1883, the son of a carpenter, Edwin Deller left school at the age of twelve years to begin work as an office boy. Even in early boyhood he dreamed of a career in London, and as a youth he sought and found work there. After a period of other employment he entered the offices of the Kent Education Committee as a clerk, having chosen that position in preference to a better-paid post in a commercial house. He studied law in evening classes at King's College, University College and the London School of Economics, and graduated LL.B. with honours in 1911.

It was in 1912, at the age of twenty-nine years, that Deller first entered the service of the University of London, as secretary to the academic registrar. There he remained until his death, apart from war service in the Inns of Court O.T.C. and a short period in 1920 as assistant secretary to the Royal Society. He was invited to return to the University as academic registrar, and he held that office from the beginning of 1921 until his appointment as principal of the University in the autumn of 1929. In 1916 he gained the degree of LL.D. with a thesis on "The Liberty of the Subject".

Both as academic registrar and as principal, Deller served the University in times of exceptional importance. The period of his registrarship was one of great growth in the schools of the University, while his principalship covered the critical years, from 1929 onwards, in which new statutes came into operation and a new constitutional body, the Court, exercised centralized control over finance. Furthermore, his years as principal saw the arduous beginning of the vast building scheme in Bloomsbury. In both posts he was brilliantly successful; and it is difficult to believe that any other than he could have achieved an equal measure of success.

Endowed with vigorous health and blessed by a supremely happy home life with his wife and son, Deller brought to every task and to every occasion a wealth of energy, ability and human quality which made him an ideal administrator. He possessed in an extraordinary degree the power of radiating good humour and diffusing goodwill; of reconciling differences by discovering the measure of common purpose existing in apparently conflicting aims; and of going straight to the heart of a subject, often finding a clear solution where others had seen only an obscure problem. He delighted in working with scholars and men of science. Himself a man of wide culture, he shared their ideals and understood their ways. But he was equally at home with men of affairs, and indeed with all sorts and conditions of men. He gained to a most remarkable degree the affection, not only of members of his own staff, but also of countless colleagues in the university world at large.

Deller owed and acknowledged special allegiance and gratitude to three men with whom he was very closely associated in his work : to Sir E. Cooper Perry, principal officer of the University from 1920 until 1926, who was an outstanding influence in his life; to Lord Macmillan, chairman of the University Court; and to Mr. Harold Claughton, now clerk of the Court, and formerly secretary to the Senate. The delight of constant association with Deller in the work of the University was something which had to be experienced to be believed. One who experienced