

RACE ELEMENTS

IN BENGAL

A Quantitative Study

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FOREWORD

During the 1941 census of India, at the instance of M.W.M. Yeatts, at that time the Census Commissioner of India, Dr. D. N. Majumdar collected certain anthropometric measurements on castes and tribes of Uttar Pradesh (then United Provinces). While the data were being analysed at the Indian Statistical Institute, I felt that a similar investigation in Bengal would throw some light on the various controversial issues relating to the ethnic composition of the inhabitants of this province. I therefore requested Dr. Majumdar to undertake a tour of Bengal and collect measurements on individuals belonging to different social groups. I also had something else in view. Having undertaken in 1925 a study of race mixture in Bengal,¹ based on the measurements taken by Sir Herbert Risley, I was eager to know how far the conclusions reached in my paper would be substantiated by measurements taken by another investigator.

It was also becoming increasingly evident, and the analysis in Chapter 4 of this report confirms this, that if comparisons are to be made, of physical measurements, between any two groups of individuals, the measurements to be used for this purpose should preferably be taken by the same investigator. With the data collected in Bengal by Dr. Majumdar, it was hoped it would be possible to secure comparable material for studying intra- as well as inter-state differences.

The survey was undertaken in 1945. We now see, in retrospect, that but for this timely survey the chances would have been remote of obtaining such a long series of comparable measurements on a number of social groups living in various parts of undivided Bengal.

It may be noted that the survey was undertaken immediately after the World War II, when there were considerable difficulties in travelling in different parts of Bengal, in contacting people, and in taking their measurements. As a result, the geographical coverage of the survey was not as wide as had been originally intended; and only 14 out of 29 districts of Bengal could be surveyed. Some of the districts in the Chittagong division (*Chattala*), from where valuable information could have been collected, were not visited, as the district authorities there felt that proper facilities could not be provided for Dr. Majumdar to carry out his work. It must, therefore, be noted that the conclusions drawn in this report apply only to the area covered, and not necessarily to the undivided Province of Bengal as a whole.

As in an earlier report, on the U.P. Anthropometric Survey, the authors of the present report adopted a neutral word 'group' and classified all the individuals measured, into a set of suitably defined 'groups'. A 'group' consists of individuals

¹ Analysis of Race Mixture in Bengal, Presidential Address, Anthropological Section, Indian Science Congress, 1925, *Journal of Asiatic Society of Bengal*, 23(3), 301, 1925.

belonging to the same caste, religion or tribe and living in the same district, that is, the classification adopted is two-way, one representing caste, religion or tribe, and the other geographical habitat (district). Any further division on the basis of sub-caste, clan, endogamy etc., would have resulted in a large number of groups; and a much larger survey would have been necessary to obtain a sufficient number of individuals under each such group to be amenable to reasonable statistical analysis. It is clear that the ultimate aim should be to treat the several endogamous units as separate groups; and gradually to build up a knowledge of their differences by a series of surveys. This could not, however, be done in an efficient way in a single survey spread over a short period of time.

In any case, this preliminary survey with good coverage of different areas of Bengal and a broad classification of the individuals into social groups should be useful for planning a more comprehensive series of surveys with a more detailed grouping of individuals on lines indicated above. From this point of view, the present contribution is a welcome addition to the anthropological literature on Bengal, containing as it does, a critical evaluation of the previous work on race elements of Bengal, a statistical analysis of the present material designed to throw information on the various issues involved, tentative inferences about the ethnic composition of the inhabitants of Bengal, and suggestions for future surveys.

One of the important contributions of the present analysis is the demonstration of regional differences within a social group, that is, between individuals adopting the same caste, tribal, or religious name (label), but living in different areas (Districts). This shows that a term like 'Brahmins of Bengal' has to be used with some caution; and when an investigator measures a sample of Brahmins, it is necessary to specify the localities to which the individuals belong. Many previous reports on anthropometric surveys, unfortunately, do not provide this information, without which the interpretation of the observed differences could be misleading.

Another interesting feature indicated by the present study is that sometimes there is closer resemblance between caste groups within a district than between individuals of the same caste group belonging to different districts. If this finding is corroborated by further investigations, it would present a serious problem of eliminating regional or geographical differences in comparing groups of individuals belonging to the same caste or group but living in different regions of the State.

On the statistical side, I am happy to find that the Generalised Distance (D^2) introduced in 1925 for purposes of classification of a number of groups, on the basis of their mean positions in a p -dimensional character-space, has become a useful tool in a wide variety of fields. In the present report, while the Generalised Distance is used as a precision tool for studying the affinities of a closer order, as between groups of people living within the same state, some simpler tools were evolved to examine broad differences which may exist between groups of individuals belonging to widely separated geographical regions. This was done by providing new definitions of size and shape factors suitable for investigations of the present nature; and comparing

technique used for inter-state comparisons, in Chapter 5 of the report, led to some interesting classifications of the groups belonging to different states, confirming some previous observations made by me about higher caste groups in the study of race mixture in Bengal.

The report also contains a critical assessment of the available data on blood groups relating to Bengal which clearly indicates the need for a more systematic and comprehensive blood group survey.

This report brings out very clearly that specialized knowledge of both anthropology and statistics is demanded in anthropometric investigations; and that collaboration between specialists in these fields can be of great value. Since the publication of the report on U.P. Anthropometric Survey under the joint authorship of an anthropologist (Majumdar) and two statisticians (Mahalanobis and Rao), a number of reports have appeared based on the joint work of anthropologists and statisticians. I hope the practice would continue to the best advantage of research in both the fields.

New York, 2 May 1958

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