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## RECENT ANTHROPOLOGY

## By the late Professor FRANZ BOAS

From time to time I have found it useful to reexamine the general principles which I have been following in my scientific work and to compare them with new tendencies which were springing up in our own and related sciences and which were modifying and extending both the field of our researches and the methods of investigation. It so happens that I have stated the results of such reexamination of principles at intervals of about ten years, beginning in 1888 with the acceptance of views generally held by ethnologists of that period. The last time I gave such a review was in 1932. I have been asked to give to-day a similar review of the problems and methods of anthropology as I see them.

Before the development of field research, planned for the investigation of specific, detailed problems,

<sup>1</sup> Read before the American Ethnological Society, May 13, 1942.

the endeavor of the field worker used to be primarily to obtain information, as complete as possible, regarding the types of bodily build, of linguistic expression and of other cultural features that set off one human society from others. In 1888, when I was charged by the British Association for the Advancement of Science with an investigation of the Indians of British Columbia, a summary report on the types and customs of the Indians of that province was the task entrusted to me. By necessity it resulted in a picture in which general impressions were combined in a standardized whole. Individual variations within the group had to be neglected. They were not considered as relevant. Furthermore, they can not be obtained by these methods, for they require long-continued personal relations between the observer and members of the group which he wishes to study.

It will perhaps be best to discuss the problems that

confront the investigator by taking up physical anthropology, linguistics and culture separately because the crucial questions appear partly in different forms.

In physical anthropology it is possible to define generalized groups adequately, provided we confine ourselves to the comparison of such groups in which the characteristic traits of every individual of the one group are distinct from those of the other, as for instance Bushmen and North Europeans, although we must remember that there are other traits in regard to which the two groups are not fundamentally distinct.

The attempts to define closely related populations in which individuals of the same form are not exclusively found in the one group, or to define single traits that are found in the various groups that are being compared present peculiar difficulties. In all these cases differences between the groups can be expressed only by statistical methods, that is, by determining the frequency with which the various forms occur in each group; but this is not the way in which our minds work. We are impressed by those forms which occur most commonly and combine these forms in one individual, the type. It is easy to show that such a "type" is a construct that has no reality. When, for instance, Professor Sargent constructed the ideal type of the Harvard student by having a sculptor make a figure of a youth whose body measurements corresponded to all the measurements obtained as averages of all the Harvard students, he would have been unable to find any individual strictly corresponding to that type. Supposing he had excluded all those who differed very much from his standard and included only those who were near the most frequent forms so that only the middle half of the series were included, and if furthermore ten independent features had been considered, he would probably have found among 1024 individuals just one who corresponded to his ideal type. In other words the type is a subjective construct. it has an objective reality must be determined by special investigations.

It must also be remembered that types described by averages are not of such character that the differences between two types can be expressed by addition or subtraction. The differences between two averages may be the same, but the variants may be such that in one case not a single measure of the one group would appear in the other, or it may be that both groups have many measures in common, and the measure of difference can not be obtained by subtraction, but only by an evaluation of the significance of the number of cases the two series have in common. The numerical values are not additive.

Another consideration must be borne in mind. When a type is described, previous impressions and preconceived notions influence the description of what we see. A person who has studied a Negro population will see the lips and noses of Indians as narrow, while one whose experience has been with Whites will describe them as broad, even if both observers used the same printed standard pictures as types. In an experiment made by Goring, the foreheads of criminals were described as low, because this was expected, while the actual measurements showed that the description was faulty. All this is equally true of anatomical, physiological and psychological traits.

There is another form of mental reaction to the variability found in a population. The forms deviating most strongly from those of most frequent occurrence are readily considered as separate units, to be excluded from the type. In this manner two or more contrasting types may be established, the middle, most frequent form being considered the result of mixture of the extreme forms, either due to interbreeding or to simple mechanical mixture of the extremes. Wherever pairs of contrasting terms are used this tendency may be suspected. Long-headed and short-headed, tall and short, pyknic and leptosome, extravert and introvert are primarily terminological conventions expressing extremes of a variable form. Their designation as types does not show that they should be considered as distinct elements in a population. An example of this kind is the description of Indian types by an experienced anthropologist who described one group of Indians as composed of a number of types of other tribes whom he had previously investigated and whose forms had impressed themselves upon his mind. The study of extreme forms may bring to light correlations between features that may be obscured in the general mass, such as relations between bodily form and function; but it can not decide whether such relation is due to an inner relation controlled by biological conditions, to mixture of distinct variable forms or to other causes. As in other cases, a statistical statement of numerical distribution may give us a clearly defined problem, the answer to which must be sought in the domain of other sciences. When we find that the size of the body of Europeans and Americans has increased during the last century we have to look for an explanation not in statistics, but in the physiology of growth as affected by sociological or other conditions and by possible changes in the hereditary composition of populations; or when the birth rate of a population changes, the social changes, age distribution and so on that bring about the statistical result have to be investigated.

It can not be emphasized too strongly that it is a fundamental logical error to identify the construct type and the individual, to ascribe all the characteristics of the type to the individual, as well as to mistake a terminological classification for a reality. Such conclusions are scientifically unsound. What is worse, they have a disastrous effect upon our lives. It is clear that the whole Nazi anthropological theory is built up on these misconceptions, on the assumption that members of what is called arbitrarily a racial unit—actually a population—must have individually certain traits in common which conform to the construct type; all this notwithstanding the stress laid upon the hereditary differences in family lines.

The concept of a pure race implies that all individuals constituting the "race" must be genetically alike. The only pure races that we know are purebred domestic animals and cultivated plants and these are purest only in regard to those traits that can be bred pure and that have been selected for pure breeding. The variability of the whole race is low in regard to the selected features and all the family lines are very much alike. The question, in how far fraternities in highly inbred human societies are alike and in how far family lines may be alike in such a community has never been adequately studied. From what we know at the present time we may say that even in highly inbred communities a high degree of variance of family lines as well as of members of fraternities persists, so that the identification of an individual as a significant sample of the group is impossible. The larger the area inhabited by the social group under consideration—generally a nation is meant—the less can any individual be considered as representative of the group, the less can we speak of the "type" of a nation.

There is another very fundamental problem in physical anthropology that has not received adequate attention. A local type is generally considered as stable. Racial heredity means that the typical distribution of forms of one generation will be repeated in the following generation. It has been recognized that differential birthrate, mortality and migration may modify the frequency of various types, but insufficient stress has been laid on the question in how far the children of parents of a given form may differ for physiological reasons from their parents, in other words in how far external conditions may modify the type. We know that lower organisms are susceptible to such changes, but there is still considerable reluctance to accept this problem as one of major importance.

Let us turn from the field of physical anthropology to that of cultural anthropology. In earlier years the attention of students was primarily directed to the problem of the general development of culture, to the discovery of evolutionary stages of culture and to the investigation of historical events that shaped cultural development. The results of these studies will

always retain their importance for an account of the history of culture. Archeology, the study of distribution of similar cultural forms, the occurrence of isolated inventions or ideas in regions without apparent historical connection furnish data necessary for the solution of these problems. Except in so far as technical improvement of methods of research is concerned there is little to be said that is new. The importance of continuing this work, of collecting new data in unexplored regions should, however, be emphasized. The interest in new lines of inquiry that has developed during the past twenty or thirty years should not induce us to slight this indispensable field of work.

The description of a type of culture brings up the question of the meaning of the term type in a form somewhat different from the one it has in physical anthropology. As in the morphological description of bodily forms we find in some groups traits which are common to one group and never occur in another one—like the differences between the pigmentation of North Europeans and Negroes—so we find in cultural groups characteristics that differentiate one group fundamentally from another. Such traits are a common language, principles of family organization, motor habits, food and sleeping habits and the like. In all these, individual variations, if they occur at all, are insignificant. Unlike the common anatomical characteristics the traits here referred to are not biologically determined. They are either automatically determined by subconscious, involuntary imitation, or deviations from the norm are so intensely frowned upon by the community that conformity is brought about by coercion.

For this reason the impressionistically derived concept of typical cultural behavior has a much higher degree of reality than that of a physical type. In a simple tribe all individuals speak the same language. They have the same kinds of industries, obtain and use food and shelter in the same way. Groups of the same descent, strictly comparable in bodily form, may differ fundamentally in cultural form. The pattern of culture has greater reality than the biological types because the cultural pattern exerts its influence equally upon every individual, while biological descent produces individuals of different qualities.

Nevertheless, we must recognize that individual variations in behavior exist, dependent upon personality and individual experience. The conditions under which most ethnological work is carried on make it difficult to observe individual variations of behavior, and little material is available for a study of this subject.

One of the characteristic traits of modern anthropology is the emphasis laid on the relation between

individual and culture, from two points of view, the shaping of individual behavior by the culture in which the individual lives, and the modification that culture undergoes by the behavior of the individual. The latter is obviously needed for an understanding of the dynamics of cultural changes.

Before speaking on this subject some remarks are necessary on the problems presented by attempts to describe and analyze a culture.

One of the serious difficulties that has never been adequately dealt with is the lack of a precise understanding of the concepts with which alien cultures are operating. These must be obtained from a detailed study of the semantics of the language of the people whose culture we wish to study and this can be obtained only when we have the fullest data that allow us to determine the meaning of the expressions used. Words like "good" and "bad," for instance, have no content unless we know what is good and what is bad. Does "good" cover the ideas of useful, right and beautiful, or is it confined to the concept of useful? Our knowledge of the semantics of primitive languages is wholly inadequate, and still, without it, we can not understand the world in which they live. On the whole our dictionaries are exceedingly inaccurate, even in the translations of material objects or of actions performed with or on material objects. In some languages our term "to break" is not the same concept when applied to long, round or flat objects, although always done by pressure. To sing is not the same, if the song is without words or with words, a dance song, love song or sacred song. love" may emphasize the ideas of value, of friendship, or of sexual love and may include the concept of pity. Accuracy of semantic value is particularly demanded in all discussions of religious subjects on account of the vagueness of many of these concepts. Thus it is of prime importance to know that in Bantu languages the being that is generally translated as "God" belongs to the class of inanimate things and can not be conceived as a human or living being. The long discussions about mana and animism might have been avoided, if the semantic value of the terms had been clearly understood. The same may be said in regard to the term soul, which has no equivalent in any primitive language that I know. Life, will power, personality, the memory image of a person, may all be considered as partial equivalents of what we call For a correct understanding of what the speaker has in mind we must know the exact semantic value of the term he uses. I believe that a strict insistence on a better knowledge on the semantic values of words is necessary for a correct interpretation of the thoughts expressed in language.

The methodological problem here touched upon is closely related to that of the classification of forms of primitive life. In natural sciences we are accustomed to demand a classification of phenomena expressed in a concise and unambiguous terminology. The same term should have the same meaning everywhere. We should like to see the same in anthropology. As long as we do not overstep the limits of one culture we are able to classify its features in a clear and definite terminology. We know what we mean by the terms family, state, government, etc. As soon as we overstep the limits of one culture we do not know in how far these may correspond to equivalent concepts. If we choose to apply our classification to alien cultures we may combine forms that do not belong together and separate what belongs together. The very rigidity of definition may lead to a misunderstanding of the essential problems involved. Goldenweiser, in his discussion of totemism, has demonstrated the error to which the definition of the term totemism has led. As explained before, the discussion of the meaning of the concept "soul" can not be based on the assumption that the classification based on our concept can be transferred to an alien culture. When the idea of a soul is that of a tangible object it would have to be grouped with the tendency to classify qualities as substances-such as sickness, success in hunting or gambling-which may stay with a person or leave him. If it is our serious purpose to understand the thoughts of a people the whole analysis of experience must be based on their concepts, not ours.

Let us turn now to a consideration of the relation between the individual and the social medium in which he lives. We may distinguish between the generalized drives expressed in sex-relations, parental relations, relations to other members of the group, etc., which are the subject of a general social psychology; and our particular problem, the interaction between individual and society in different types of cultures. The subject is so recent that a critical examination of the various methods that are being tried is much needed.

Notwithstanding the compelling force of social behavior there is obviously a considerable variation in individual reaction to given standards. As said before, the impressionistically derived typical form of behavior must not be confused with the actual individual behavior which is not identical with the assumed norm. The few available life histories of individuals in primitive societies who changed the political, religious or economic lives of their tribe fellows illustrate the importance of the deviating behavior of individuals.

(To be concluded)