

## Genetic Markers in the Field of Anthropological Genetics

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### DESCRIPTION

There is a mythical history of the intersection of genetics and anthropology. Half refers to humans' zoological relationships as species to other species. In this story, the crude similarity of human blood (and, presumably, therefore, the genes) to the blood of the monkeys was observed at the beginning of the twentieth century, but was widely ignored until the 1960s, when Morris Goodman finally correctly apprehended the phylogenetic intimacy of humans and African apes. Thus, after Nuttall's work, at the beginning of 1900, "nothing happened in the next sixty years, except perhaps that the people who find them forgetting the genetic intimacy between human and African areas".

The intersection of genetics and anthropology in the last century is that when you look at genetic data, on the surface, you see very different patterns than when you look at more traditional types of data. The same is true when hemoglobin focuses on human ancestry and human diversity. However, in both cases, the importance of genetic views is strongly influenced by culture. The close relationship between humans and chimpanzee blood has long been familiar to students of human evolution, but they have not concluded that this particular knowledge requires a different representation of our position in the natural order. It is believed that obvious genetic relationships are "more real" than anyone else. In addition, the genetic data within the human species reveals race when they expected it, and negates race when they expected it, so it is currently inconsistent with geneticists on this issue.

Genetic markers are independently segregated genetic units used to classify populations based on their presence, absence, or frequency differences between populations. Genetic markers are used to quantify the genetic diversity of populations produced through the interaction of evolutionary processes. Two discoveries in the blood group system and protein electrophoresis led to the study of genetic markers. Then further progress was made in methodology, from isolating genetic material to amplifying selected regions of the genome and reading the composition and sequence of the genome. All these factors have led to an unprecedented flow of information about human genetic diversity described by genetic markers. Genetic markers are used to study population structure and history, selection and mixed mapping. This module discusses different types of genetic markers widely used to answer questions in anthropological research and their applications in evolutionary genetic research. However, before we get into molecular markers, the background of classical markers is important.

As the relationship between genetics and anthropology has evolved over the past century, we can pass the emergence of race studies, American eugenics, Nazi racial hygiene, civil rights movement, molecular genetics, post-colonialism, and corporate genomics see some general trends. Normative human genetics is not value-neutral, nor is it divorced from contemporary society and cultural politics. In fact, it is usually more of an applied science than an abstract theoretical science, although it rarely (if any) faces its record as an applied science. Therefore, the value of anthropology to contemporary genetics may lie in exploring cultural assumptions that have influenced the generation and interpretation of its data for more than a century.

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