

BOOK AND FILM REVIEWS

Peter Wade, Carlos López Beltrán, Eduardo Restrepo, and Ricardo Ventura Santos, eds. *Mestizo Genomics: Race Mixture, Nation, and Science in Latin America*. Durham, NC: Duke University Press, 2014. Paperback, 320 pp., \$25.95. ISBN: 978-0-8223-5659.

How do ideas about race, ethnicity, nation, and gender enter into the work of genetics laboratories? What are the relationships between science and society in the production of knowledge? *Mestizo Genomics* takes these two questions seriously and offers a rich and complex answer within the Latin American context.

As is well known, the Human Genome and the Human Genome Diversity projects have stimulated a controversial international discussion. Several scholars have addressed the epistemological and ethical consequences of these and similar enterprises, but mostly outside the Latin American world. In a recent article, John Hartigan (2013) underscores the relevance of national contexts in genomic sciences. He argues that careful examination of different genomics settings can disclose sharp contrasts in the uses and meanings of race. That is, a situated view of genomic practices can help to clarify international debates.

Mestizo Genomics provides a comparative account of how notions of race, ethnicity, and nation are tailored in Latin America. The monograph is the result of an international interdisciplinary research orchestrated by Peter Wade, and carried out by three different teams working in three countries: Brazil, Colombia, and Mexico. Each team collaborated on one historical and one ethnographic account. As a result, the first part of the book is a rich and well-informed historical perspective that contextualises the contemporary laboratory cases presented in the second part. This variety of settings and voices gives a complex and unique picture of genomic sciences in Latin America, and within each country.

For the Brazilian case, Ricardo Ventura Santos, Michael Kent, and Verlan Valle Gaspar Neto analyse the work of three influential Brazilian scientists during their peak periods: Baptista de Lacerda (1870–1915), Roquette Pinto (1910–1930), and Sérgio Pena (2000–present). In chapter 1, the authors show how race, mixture, and biological diversity have been central ideas in picturing Brazil

as a multiracial country. With their historical analysis, they evince a persistent reciprocity between social understandings of mixture and race and their scientific support. In chapter 4, Kent and Ventura Santos complement the historical narrative with a laboratory study. Here they show how social understandings of race continually shape genetic research. They present a case where a specific sector of Brazil's population, the Gaúchos, is genetically linked to an extinct indigenous group, the Charruas. It is argued that nongenetic information such as historical, archaeological, stereotypical, and common sense knowledge has a profound influence on the way scientists shape their research questions and answers.

In chapter 2, Eduardo Restrepo, Ernesto Schwartz, and Roosbelinda Cárdenas present a comprehensive view of the recent history of Colombian human genetics. They focus mainly in two national projects: the Human Expedition project and the work of Emilio Yunis Turbay. While Human Expedition centres on isolated communities, the work of Yunis Turbay and his collaborators focuses on the genetic makeup of the mestizo population. However, despite the differences, both projects present a racialised and spatialised picture of Colombians. This narrative shows how the idea of Colombia as a mixed country is continually constructed in the laboratory. In chapter 5 we visit a small human genetics laboratory. María Fernanda Olarte Sierra and Adriana Díaz del Castillo H. introduce a team of young researchers who avidly discuss the use of race-like categories in human genetics. Through these debates, we learn about the problems of scientific standardisation and publishing criteria. We see how the use of new nonracial categories is an obstacle for publication; we also see how international and local practices share criteria and constrictions.

For the chapters on Mexico, Carlos López Beltrán, Vivette García Deister, and Mariana Ríos Sandoval focus on the Mexican Genome Diversity Project and Mexico's National Institute of Genomic Medicine (INMEGEN). In chapter 3, they present a historical and analytical account of the development of human genetics in Mexico. Moreover, the authors articulate a thorough and critical review of the notion of the mestizo and show how this idea has persisted as a symbol of nationalist identity. From twentieth-century physical anthropology until the age of genomic sciences, the mestizo undergoes important transformations. In the genomic era it becomes a composite of Amerindian, European, and African ancestral contributions. In this way, the Mexican mestizo transforms from 'sample-to-data' (p. 175); it circulates in the international market of genomic

sciences and biomedicine, and fulfils promises of national scientific progress. In chapter 6, Vivette García Deister delves into how this transformation is achieved. She follows the mestizo from the university auditorium, where mestizo donors are recruited, to the digital database. Along this journey, García Deister shows how the mestizo is continually defined in opposition to the indigenous. The indigenous component of every mestizo is the source of uniqueness for Mexican samples and for the whole Mexican biomedical enterprise. This is how mestizo blood samples become ‘genomic patrimony’.

An interesting achievement of the book is its conceptualisation of notions such as race, ethnic group, nation, or region as ‘natural-cultural objects’ that circulate between the scientific and nonscientific realms. The apparent racialisation of genomic categories is not only a process of misunderstanding. It is rather the result of ‘natural-social assemblages’ used by former generations of scientists who had invested them with different meanings (p. 207). Race is therefore defined as a ‘combination of reference to physical appearance, heredity, essences, culture, and the specific categories of people that emerged in colonial histories’ (p. 4).

Finally, *Mestizo Genomics* offers a wide window for scholars interested in the intersections of race, genomics, ethnicity, scientific practice, communication, and the history of science, from a Latin American perspective. Without unconsciously restricting it to an ‘unconceptualized geographical boundary’ (Secord 2004, 656), this contribution provides a situated analysis of a global matter.

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References

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