



Peter Wade. *Degrees of Mixture, Degrees of Freedom: Genomics, Multiculturalism, and Race in Latin America.* Durham: Duke University Press, 2017. 344 pp. \$99.95, cloth, ISBN 978-0-8223-6358-3.

Reviewed by Kelly Urban (University of Pittsburgh)

Published on H-LatAm (August, 2017)

Commissioned by Casey M. Lurtz (Johns Hopkins University)

Genomics possesses an equalizing potential: in showing humans how much they have in common, man-made social categorizations will lose credibility, resulting in greater equality—or so the theory goes. For example, in the early 2000s, the Human Genome Project discovered that all human beings were 99.9 percent identical in their genetic make-up; this figure has become an often-utilized weapon in the arsenal of those social and life scientists who vehemently deny the biological existence of race.[1] However, in practice, how do genomics interact with the “governance and imagination” of cultural and biological diversity in liberal political societies, with their ever-constant tension between hierarchy and democracy (p. viii)? In *Degrees of Mixture, Degrees of Freedom: Genomics, Multiculturalism, and Race in Latin America*, anthropologist Peter Wade applies this question to the region that has long set itself in opposition to the racially segregated United States and boasted (racial) *mestizaje* as the core of its identity.

Wade, an established expert in the field of race, ethnicity, and gender studies in Latin America, has recently turned his attention to the critical study of science in the region. This book will be of great interest to historians of race in Latin America, as it is one of the first to extend the considerable scholarship on *mestizaje* and racial democracy (with its attendant debates) into a new era of

genetics and genomics. *Degrees of Mixture, Degrees of Freedom* will also contribute to the historiography of science in the region and science, technology, and society (STS) studies more broadly, as it integrates Latin America into the European/US-centric narrative of scientific production.

Broadening his research from the coedited collection *Mestizo Genomics: Race Mixture, Nation, and Science in Latin America* (2014), Wade argues that genomics and genetics have not enacted a transformative democratizing process; instead, they have reproduced biological notions of race, regardless of anti-racist intent. *Mestizaje*, defined in cultural and biological (i.e., “genetic admixture”) terms, remains a central organizing frame in nation-building processes and genomics projects. “Mixture,” Wade explains, has a dual nature: it can lead to the production of more and more difference, so that boundaries blur and categories of difference become meaningless; at the same time, “in the pursuit and maintenance of hierarchies of value and power, relative purities are carved out of the sea of mixtures, by dint of selective genealogical tracings of particular connections, the enforcement of categorical distinctions, and exclusive practices” (p. 4). The conceptualization of “mixture” in this context depends on “notional bounded antecedents that give rise to the

mixture,” some “combination of identifiable wholes or origins.” In Latin America, those “original ingredients” are identified as continental ancestries (European, African, and Amerindian), categories that can easily be conflated with racial types (white, black, and indigenous) (p. 17). And multiculturalism as a national ideology fares little better than *mestizaje* because hybridity conceptually invokes bounded, separate groups that coexist within a nation.

To make these arguments, Wade draws on a broad and deep well of sources: historical and contemporary scientific writing; popular newspapers; interviews with scientists and information about laboratory practices; and public focus groups. Much of this evidence was gathered during a three-year project, “Race, Genomics, and *Mestizaje* in Latin America,” a multinational, collaborative effort directed by Wade.

Chapter 1 establishes the conceptual framework of the book. Wade traces how “purity” and “mixture” have undergirded the life sciences throughout the twentieth century. For example, in the postwar period, scientists gave genetic validity to the mestizo as a type. In addition, Wade rejects the notion of “society” and “science” as two separate and interacting domains. Instead, he employs the term “assemblage,” which conceptualizes “society as a network of people, objects, ideas, and utterances, which are held together by contingent and changeable relations.... They also overlap and interpenetrate, so it is difficult to draw boundaries around them” (pp. 46-47). Wade also uses the term “topology” to characterize these networks, demonstrating the fluidity of nodes in the assemblage (p. 51).

Chapters 2 and 3 explore the history of nation-building, scientific knowledge and infrastructure, and political transformations in the region. Chapter 2, “From Eugenics to Blood Types,” demonstrates continuity from the early twentieth-century eugenics movement through the genomic studies of the 1990s: social definitions used by sci-

entists often slipped into biological ones, and in ways that placed those different groups in a hierarchy (even in a context of staunch anti-racism in the scientific community). Chapter 3 considers the co-emergence of genomics and multicultural politics in the late twentieth century; still, *mestizaje* had staying power as a national identity, especially because, like multiculturalism, it relied on the concept of black and indigenous “inputs” (p. 13).

Chapters 4 to 6 explore three case studies: Colombia, Brazil, and Mexico. In Colombia, genetic practices, most notably in the Great Human Expedition, upheld the association between race and region and portrayed indigenous and black communities as isolated and peripheral populations (even when this was not the case). In Brazil, geneticists have argued that races are a biological fiction and that all Brazilians are “genetically mestizos” (which reinforces the notion of Brazil as a racial democracy). However, in the attempt to deracialize society, scientists enacted processes of re-geneticization and re-racialization, “because genetic discourse creeps into the definition of the social identities of race that are logically entailed by the mestizo” (p. 141). In Mexico, the National Institute of Genomic Medicine confirmed that the Mexican nation was fundamentally (genetically) mestizo, while ignoring Afro-Mexicans and conceptualizing indigenous groups as “encysted within” the nation (p. 164).

In chapter 7, Wade compares these case studies. For example, counterintuitively, the most racialized society (Brazil) did not produce the most racialized genomics. However, Wade’s primary emphasis is not on differences but on similarities. In each case study, the idea of a genetic mestizo nation was proclaimed; there was constant reference to “pure” ancestral populations that were often conflated with racial groups; contemporary black and indigenous communities were characterized as “original components ... associated with

the past and periphery” and thus denigrated as “outside of modernity” (pp. 21-22).

Wade also attends to the gendered nature of *mestizaje* in Latin American historical narratives and contemporary genomics. Chapter 8, “Gender, Genealogy, and Mestizaje,” is perhaps the most interesting in the book. Wade delves into the technical minutiae of genetic science: defining mtDNA, Y-DNA, and haplogroups; explaining what they can tell us; and pointing out what they cannot. Grasping this dense science is necessary for understanding how genetic data gets cherry-picked, simplified, and often mistranslated for a public audience. Genetic findings were presented in a way that echoed historical and popular narratives about colonial sexual encounters: European men had sex with indigenous and African women. Ignoring the varied results across sample groups, silencing certain sexual interactions (e.g., those of black males), and selecting only particular and “possibly distant connections” gave genetic authority to popular beliefs about the nations’ “European fathers” and “indigenous mothers” or “African mothers” (p. 191).

Reminiscent of Stephen Jay Gould’s superb exploration of eugenic scientists’ methodological inaccuracies in *The Mismeasure of Man* (1996), the book is perhaps most convincing where, as in chapter 8, Wade skillfully and clearly analyzes how cultural and social categories have shaped scientific practices and the circulation of genetic information outside of the laboratory. Another persuasive example comes from Mexico: scientists designed sample populations based on sociocultural characteristics (such as dress). When, however, some of those people defined as indigenous were found to be genetically closer to the mestizo sample, they were excluded as “genomic noise” (p. 158). In other parts of the book, nonspecialists in genetics and genomics might yearn for a clearer distinction of where the mestizo assemblage influences research methods to be less “objective” (an admittedly problematic concept). One also won-

ders how geneticists would respond to these critiques of their practices and if any significant dissension exists among them. For example, do any reject *mestizaje* as a useful frame in genetics/genomics? The interdisciplinarity of Wade’s book is one of its strengths, but more work is needed to further bridge the divide between social and biological scientists.

Chapter 9 considers the role of genetics in everyday life, drawing on focus groups primarily composed of university students. Wade found that genetic data did not have a transformative effect on how these individuals conceived of race and national identity. Instead, it “add[ed] some new tropes to talk about the same things in familiar ways” (p. 257).

Wade concludes that genomics has upheld hierarchy in Latin America, despite its democratizing promise. This is evidenced by the fact that scientists continue to insist on biological race as a medical reality; forensic scientists use DNA to racially profile citizens; genetic practices utilize social categories, which genetically differentiates and reifies them; and actors constantly refer to “pure” or “original” (continental) ancestries, which “continue to look very much like familiar racial categories” (p. 259). Genomics might be able to help equalize society, but it cannot do so if it continues to hold to the notion of *mestizaje*. Wade insists, “at the very moment in which [genomics] emphasizes mixture as conducive to democracy, it reestablishes the relative purifications, boundaries, and separations that enable hierarchy” (p. 266).

Degrees of Mixture, Degrees of Freedom drives the debates about racism and racial ideologies in Latin America into the genomics age, while offering innovative arguments that are sure to elicit debate. Wade provides new material for the decades-old polemic about racial democracy in Latin America: A tool of elite domination? Weapon of marginalized actors to make claims on the state? Both? Neither? As historian Paulina L. Alberto has

noted in *Terms of Inclusion: Black Intellectuals in Twentieth-Century Brazil*, these myths do allow “for the rise of organizations, institutions, and patterns of social interactions that cut across race and class lines, mitigating (without overturning) enduring structures of inequality.”[2] It is worth exploring if there are any ways that (geneticized) variants of racial democracy have opened avenues for greater equality, or if by sustaining the fiction of “race” (as Wade persuasively argues), they only limit the transformative potential of mobilization.

On a related note, Wade has emphasized similarity among the case studies, but one way to extend the conversation is to consider whether there is more nuance to both national racial ideologies in the region and subsequent effects on political mobilization for greater equality. Since the 1990s, scholars have created a body of work that historicizes *mestizaje*, showing how local and national historical processes have resulted in distinct constructions of racial ideology. These discursive formations vary across nations, across time, and within nations.[3] They have also diverged in their degree of leverage for claims-making and their degree of constraint on human action. For example, indigenous peoples may have been silenced from national identities in the Andean republics in the nineteenth century, but Afro-Cubans’ participation in the wars for independence earned them a place in the national imaginary *and* the right to vote.[4] Wade describes differences among Colombia’s, Brazil’s, and Mexico’s mestizo assemblages, but are there other important distinctive characteristics among them, as well as among the racial ideologies of other Latin American nations? And does this influence how mobilization against inequality develops in the era of genomics?

These reflections and questions should not be read as criticism of *Degrees of Mixture, Degrees of Freedom*. Rather, by opening a host of research

paths for other scholars, the monograph proves itself to be ambitious and well executed.

Notes

[1]. This number has now been lowered to 99.5 percent (p. 259).

[2]. Paulina L. Alberto, *Terms of Inclusion: Black Intellectuals in Twentieth-Century Brazil* (Chapel Hill: University of North Carolina Press, 2011), 16.

[3]. For example, the idea of “racial fraternity” in Cuba during the wars of independence differs from the *mestizaje* that developed in Colombia in the nineteenth century. For that matter, “racial fraternity” in Cuba is distinct from the *mestizaje* that developed in Cuba during the 1930s. See Ada Ferrer, *Insurgent Cuba: Race, Nation, and Revolution, 1868-1898* (Chapel Hill: University of North Carolina Press, 1999); Aline Helg, *Liberty and Equality in Caribbean Colombia, 1770-1835* (Chapel Hill: University of North Carolina Press, 2004); and Alejandro de la Fuente, *A Nation for All: Race, Inequality, and Politics in Twentieth-Century Cuba* (Chapel Hill: University of North Carolina Press, 2001). For coterminous regional variants within the nation-state, consider the disparities between *mestizaje* and “racial harmony” in Colombia. Helg, *Liberty and Equality in Caribbean Colombia*; and Marixa Lasso, *Myths of Harmony: Race and Republicanism during the Age of Revolution, Colombia, 1795-1831* (Pittsburgh: University of Pittsburgh Press, 2007).

[4]. Brooke Larson, *Trials of Nation Making: Liberalism, Race, and Ethnicity in the Andes, 1810-1910* (Cambridge: Cambridge University Press, 2004); and De la Fuente, *A Nation for All*.

Erratum: The original version of this review included an incorrect endnote number.—ed. (8/29/17)

If there is additional discussion of this review, you may access it through the network, at <https://networks.h-net.org/h-latam>

Citation: Kelly Urban. Review of Wade, Peter. *Degrees of Mixture, Degrees of Freedom: Genomics, Multiculturalism, and Race in Latin America*. H-LatAm, H-Net Reviews. August, 2017.

URL: <https://www.h-net.org/reviews/showrev.php?id=49912>



This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 United States License.