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a necessary addition to the study of American and global relationships, and the land we share. Most importantly, however, the text offers a compelling map towards global decolonization.

Leah Snieder

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Native American DNA: Tribal Belonging and the False Promise of Genetic Science. By Kim TallBear. Minneapolis: University of Minnesota Press, 2013. 256 pages. \$75 cloth; \$25 paper; ebook \$90.

Native American DNA is about the recent invention of something called “Native American DNA” and its consequences for contemporary Native American identity and citizenship. Through the ethnographic study of “non-Native subjects and scientific projects” such as those DNA ancestry companies and genetic genealogists who employ certain DNA technologies to trace ancient ancestry, TallBear situates Native American DNA as an “object of knowledge” highly sought-after by scientists and, increasingly, consumers. In doing so, the book lucidly explains the pervasive contemporary phenomenon in the United States of speaking of race and indigeneity in genetic terms. TallBear’s central argument is that the “gene fetishism” of recent decades holds serious risks for Native Americans. Gene fetishism, a term borrowed from feminist science studies scholar Donna Haraway, refers to popular understandings of genes as an objective, scientific object that encodes a person’s fate and identity.

Such understandings, like Marx’s articulation of commodity fetishism, divorce the gene from the social relations and material conditions of its production. TallBear follows Haraway in viewing genes (and other “natural” objects) as co-constituted by both “natural” and “social” orders (23). The book thus illustrates the many ways in which the scientific construction of Native American DNA as a kind of “molecule-made-transcendent” further obscures the often already poorly understood historical and political complexities of Native American tribal belonging (71). This rigorously interdisciplinary text contributes a complex, and, in the author’s words, “indigenous, feminist” understanding of race, indigeneity, and science that, among other fields, will be relevant to Native American and indigenous studies, as well as ethnic, science, women’s, and gender studies.

Perhaps most importantly, *Native American DNA* provides an invaluable, reasoned refutation of several problematic narratives about race and indigeneity. TallBear adroitly skewers the much-circulated ideas that “‘we are all African,’ that ‘genetic science can end racism,’ that ‘indigenous peoples are

vanishing,' that 'we are all related,'" and that scientific projects such as National Geographic's The Genographic Project sincerely "collaborate" with indigenous peoples (27, 143–176). Showing how these narratives easily play into contemporary discourses of multiculturalism while maintaining older, problematic ideas about race, she persuasively argues that such science "does not undermine race and thus racism, but it helps reconfigure both race and indigeneity as genetic categories" (147). TallBear reminds us that "Racism does not need to be scientifically 'correct' to thrive," and thus the frequent claims that proving humanity's "oneness" and interconnectedness will eradicate racism are both naive and irrelevant (149).

TallBear also shows throughout the book how ahistorical such narratives tend to be. For instance, the claim that we are all African is "nonsensical," she points out, "given that 'Africa' did not exist two hundred thousand years ago," the time to which scientists trace a "mitochondrial Eve" (147). Neither does she hesitate to critique Native American studies scholars for lacking serious engagement with science studies and the history of genetics. She points out an ahistorical tendency to impose metaphors such as "genetic ancestry" and "genetic admixture" onto Native histories and "traditions" where such ideas would not yet have been possible, given that the double helix of DNA was only articulated in 1953. Such impositions are problematic because historical ideas about "blood cannot be conflated with biogenetic ideas," and thus "attribute universality and timelessness to gene concepts" (52–53). While TallBear makes an important point about these tendencies towards ahistoricity, a more thorough history of how and when mainstream ideas about blood and genes changed would have strengthened her arguments. Though the double helix was only discovered in 1953, Mendelian genetics were influential in concepts about race beforehand. For instance, soon after World World II, the United Nations' Educational, Scientific, and Cultural Organization was already encouraging the public to think of race as a matter of genetic traits and mutations being expressed and isolated by geography (see, for example, UNESCO's *What is Race? Evidence From Scientists*, 1952). Thus, there may be more to think about in terms of historical differences between "gene" talk and DNA talk.

While other texts such as Dorothy Roberts' *Fatal Invention: How Science, Politics, and Big Business Re-create Race in the Twenty-first Century* (2012) and Jenny Reardon's *Race to the Finish: Identity and Governance in the Age of Genomics* (2004) have advanced similar critiques of genetic articulations of race and the uneven impacts of genomic studies on indigenous peoples, *Native American DNA* is undoubtedly the first in-depth study of race and genomics that is thoroughly grounded in complex understandings of indigeneity (a historical, social, and political category irreducible to, if often practically inseparable from, race) and the pragmatic concerns of Native American tribes.

TallBear is clear from the outset that, following other Native anthropologists, this book does not provide, and in fact refuses, ethnographic examination of Native American perspectives on blood and DNA. This choice to study “up” instead of her own “tribal kin” (TallBear is enrolled Sisseton-Wahpeton Oyate) is both ethical and practical (17, 62). While she acknowledges that work tracing the historical shift in Native Americans’ own understandings of indigenous ontologies from metaphors of blood to DNA is much needed and indeed already underway by other Native scholars, TallBear incisively argues that “What ‘they’ [scientists and non-Native people] think and do have always determined how much trouble ‘we’ [indigenous peoples] have” (9). Part of the aim of her work, then, is to “support tribal governance and community development in relation to DNA production” by explaining in detail the various ways that Native American DNA is produced in what seems to be an ever-growing market of genetic ancestry tests.

Indeed, she achieves that aim wonderfully, carefully guiding the uninitiated reader through the mechanics and outcomes of four types of genetic ancestry tests. Two types of tests trace ancestry through population markers in mitochondrial DNA (or mtDNA, inherited maternally) and the Y-chromosome (inherited paternally and present only in males). The mtDNA and Y-chromosome tests are primarily used for genetic genealogy research and genographic mapping. Genetic genealogy research, the topic of her third chapter, can be understood as “family tree” research that uses “ancestry-DNA tests to fill in documentary gaps” (105). Genographic mapping, examined in depth in chapter 4, uses DNA to trace population histories and human migration. A third type, the “autosomal” test, looks at markers inherited both maternally and paternally. Autosomal tests provide consumers with racial percentages that purportedly comprise their ancestry.

A fourth type of test, called the “DNA profile” or “DNA fingerprint,” also looks at multiple markers found across the genome, and employs the same type of analysis used in criminal cases or to identify paternity. Interestingly, TallBear notes that it is this DNA profile test that is increasingly being used by Native American tribes, most frequently to prove genetic parentage and thus verify blood quantum for the purposes of enrollment. She explains that the other types of DNA tests are of less use to tribes because “a marker for the tribe can never be isolated” (83). This is because the only genetic markers that scientists identify as “Native American” appear frequently in (but, crucially, are not unique to) those who broadly identify as Native American, of any tribe. Thus, a “tribe is not, strictly speaking, a genetic population. It is at once a social, legal, and biological formation, with those respective parameters shifting in relation to one another” (83). By contrast, a DNA parentage test “precisely

demonstrates recent biological ancestry and relationships that must be documented for conferring tribal membership” (89).

Her discussion on the complex benefits and risks that tribes weigh in using genetic parentage tests builds on previous scholarship about blood and blood quantum in Native American studies—such as Circe Sturm’s *Blood Politics* (2002), Melissa Meyer’s *Thicker Than Water* (2005), and Kēhaulani Kauanui’s *Hawaiian Blood* (2008)—from this genetic angle. Following such critical analyses of blood quantum histories and laws, TallBear reminds us that we can never assume that “tribal and federal understandings of blood and reasons for instituting blood rules are in sync” (58), but rather, we must closely investigate how tribes situate such technologies and ontologies within their own needs and understandings of membership. In a similar vein, the book’s conclusion offers some examples of “alternative mechanisms for Indigenous governance” over scientific research, beyond the limited provisions of law. In this section, she highlights promising recent developments such as the ethical guidelines issued by the Canadian Institutes for Health Research and critiques of the Genographic Project written by Asociación ANDES, a Peruvian NGO, and offers suggestions as to how such work could be applied much more broadly for the benefit of indigenous peoples. TallBear’s analysis illustrates that greater indigenous governance and engagement in scientific projects is not only a matter of preventing exploitation and abuse, but also of enabling new forms of innovation that could be productive to all involved. Overall, *Native American DNA* is a generative book, certain to become a key text for teaching and researching issues of science, race, and indigeneity today.

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Negotiating the Deal: Comprehensive Land Claims Agreements in Canada. By Christopher Alcantara. Toronto: University of Toronto Press, 2013. 200 pages. \$60.00 cloth; \$24.95 paper.

There are currently twenty-four modern treaties in effect in Canada, also known as comprehensive land claims agreements. Further agreements await ratification or are under negotiation. Although individual agreements and the history of their negotiation have been described and interpreted, there has been little comparative consideration. Only a few pages of J. R. Miller’s *Compact, Contract, Covenant: Aboriginal Treaty-Making in Canada* (2009) are devoted to modern treaties, for example. Yet modern treaties encompass approximately 40 percent of Canada’s landmass, primarily in the north, in