

[rug.nl](https://www.rug.nl)

Settler Similarity and the Science of Difference | CRCG | Research | Faculty of Theology and Religious Studies | About us

17-21 minutes

What can DNA tell us about our "identity," and - more significantly - what can't it? In our first blog post of 2019, Tyler M. Tully reflects on the relationship between DNA testing, settler-colonial norms, and racial apartheid in the United States and beyond.

In October 2018, US Senator and Presidential hopeful [Elizabeth Warren released the results](#) of a DNA test that determined she had traces of Native American ancestry. The announcement was made in response to the trolling of President Donald Trump, who had consistently derided the Senator for [her previous claims to Cherokee heritage](#). In July of 2018, Trump challenged Warren to prove her indigeneity once and for all by means of DNA testing, noting that he would donate \$1 million to charity should the results show that she was indeed "an Indian." Though genetic testing of this kind is unable to prove any specific connection to any particular tribe, Warren's results did show that she has a least one Native American ancestor approximately six to ten generations ago. Trump soon took to Twitter and in a slew of

subsequent tweets attacked Warren's disclosure as a farce. Warren has since remained steadfast, [releasing her own television ads](#) regarding her genetic lineage.

Though these DNA test results seem to [vindicate Warren's ancestral claims](#), the entire episode is unfortunately emblematic of a much larger history in cultural erasure and appropriation propagated by White settler-colonialism. Its reliance on biological essentialism, moreover, is also deeply connected to long-standing racializing practices in the United States.

Like religion, identity depends on so many factors that it can never (and should never) be boiled down to just one pure thing. [Sui generis notions of religion](#)—a legacy of European epistemological practices—tend to reduce its object of study to some essential phenomenon (e.g. belief, dogmas, texts, etc.) as discrete from any other. But this type of analysis misses out on the plethora of assemblages that bleed in and through other siloed spheres like “the secular” and “the political.” It also ignores the ways in which religion-as-some-pure-thing becomes almost entirely individual. Religion can be deeply personal, but it is never really entirely insular. It might be expressed through belief or adherence to doctrine, but then again, many times religious peoples run roughshod over their inherited beliefs systems. This doesn't make them any less religious. Unfortunately, some scholars of religion tend [to differentiate pure forms of institutionalized religion](#) against “popular” or “implicit” modes, which are then seen as somehow less significant or real in comparison. But religion, like identity and ethnicity, is always lived and cannot be defined in essentialized ways removed from

embodied histories and cultural textures.

The problem with essentialized DNA testing logics can be illustrated by [the recent partnership](#) announced between Ancestry.com and Spotify. The world's largest for-profit genealogy database and online music streaming service are teaming up to “help people experience their culture and not just read about it”. [\[1\]](#) If you are an existing Ancestry.com DNA customer, you can now provide Spotify with your genetic data and get back suggestions for the types of music you may want to listen to.

If this sounds like a marketing gimmick, it's one that has been played out successfully for some time. After a pitiful World Cup performance by the US men's team in 2018, for example, Ancestry's ad department encouraged American football fanatics [to support new countries based](#) on their DNA test results.

Another online advert shows a man [trading in a set of lederhosen for a kilt](#) once he discovers his true ethnic identity—according to a DNA test kit. When a woman traces part of her ancestry [back to a matriarchal society in Ghana](#) in another video, she claims: “When I found you in my DNA, I learned where my strength comes from.” And in yet [another recent Christmas ad](#) announcing Ancestry's newest holiday sale, a keen Kelly Ripa connects with a café full of Italians after finding out that part of her family comes from the tip of the toe on Italy's southern boot.

All of these advertisements share something in common: they want you to believe that DNA testing proves something essential about yourself that doesn't come from somewhere else. That's why Ancestry's website invites customers to “discover what

makes you uniquely you.” The implicit theme in these marketing schemes contends that when it comes to ethnic identity, biological difference and similarity matters.

[Millions of people](#) are taking these tests, hoping for a bit of information about who they are and where they come from. [DNA testing in genealogy research can be a helpful thing](#), especially for [victims of settler-colonialism](#), as it can be used to challenge White epistemologies and reconnect broken branches of a family tree. But DNA testing cannot prove who you really are. Identity is much more complicated than that.

What’s more, these types of tests can be very misleading. Companies can only search and match your DNA results against their own proprietarily owned genetic databases. Your DNA could be compared against 100 people in Ireland, for example, or it could be tested against 1000 others in Spain. But you may not know whether all of these samples in the database come from the same province or whether they are scattered across the entire country. It depends largely on the sample sizes owned by each DNA testing company—and there’s never a guarantee that any of the existing samples are “purely” Irish or Spanish anyways. [\[2\]](#)

DNA testing of this sort is a socially constructed commercial enterprise using a specific type of science whose technological sophistication gets confused with pure fact. If your DNA test results say that you’re 42% English, for instance, it actually means that 42% of your DNA markers align with similar sequences found in that particular company’s database identified as “English.” Your DNA is never actually being tested for matches

against all the people in England—it will only be compared to a small data set owned by the particular business you use. Every competing DNA test company owns a different genetic database, and none of these data sets exist in a genetic vacuum protected against “non-English” genomes. Every testing service uses their own rubrics to formulate who and what constitutes an ethnic or national sample before it ever gets organized and compared against others. There is no universal criteria, in other words, that establishes that all DNA testing companies categorize “English” genomes in the same way.

Using those particular sets of genetic data, direct-to-consumer testing kit companies can then cross-check their customers against any other criteria they like. Such methods might be useful if Spotify wants to guess that you like Ed Sheeran’s music, for example, since you’re 19.1212123% English according to Ancestry’s DNA records. But it cannot really reveal anything about who you are, why you match 19.1212123% of the people in its database, or the particular culture(s) from which you come in England (Cornish, Scouse, Mancunian, etc.). You might also have a higher probability for liking Ed Sheeran’s music because, in addition to your DNA test results, you are a 29 year old female from Suffolk whose best friends introduced you to his music at your 16th birthday party. On the other hand, you may hate Ed Sheeran’s music because it doesn’t appeal to you. The point is that there isn’t a molecule for acculturation.

DNA percentage identity of this sort unfortunately gets conflated with [Native American blood quantum](#)—the settler-colonial scheme that identifies Indigenous peoples according to their

tribal affiliation. Native Americans that have been forcefully removed from their historic homeland and concentrated into camps across “Indian Reservations” in the United States are typically identified by their blood quantum (e.g. as 1/6th Cherokee and/or 1/16th Metis, etc.) by the Federal Bureau of Indian Affairs. But Native American tribes don’t identify their members through DNA testing—and they never have. As sovereign nations, tribes alone have the authority to name and claim any of their own citizens. [Tribal affiliation has nothing at all to do with DNA](#) and everything to do with tribal autonomy and culture.

Boiling identity down to DNA percentage points (even those based upon uneven database groups) not only reifies misguided understandings about cultural identity, it is also unfortunately related to modern notions of [race science](#). Being Black and being Red in the United States both operate in different ways when compared to Whiteness in America. But both are rooted in histories of biological racialization. US governments used to identify one’s [Whiteness or Blackness using the “one drop rule.”](#) If you had even one drop of Black blood in your ancestry, for example, local governments considered you legally and socially Black. It’s the [same type of racial logics](#) that mean Barack Obama—the first US President to identify as Black and African American—can only ever be Black in popular imaginaries because he looks that way and not because his mother was White and his father was Kenyan. Contemporary Whiteness in America may operate as 29% Sicilian, 13% Irish, etc. depending on one’s DNA test results, but Blackness never has and never

will.

Being Red in America works in a different way, but it too has always been differentiated against Whiteness. After the end of the so-called Indian Wars, the US government began making new treaties with Native American tribes for land allotments and food rations. Having been completely removed from their homelands and forbidden from indigenous ways of living (like Bison hunting), the survival of most tribal members in the Midwest depended on these crucial allocations. Just before the massacre at Wounded Knee, the US government began employing new electronic census technologies to assess the total number of tribal members on each reservation.^[3] These innovative tactics were done in part because the payments in food and interest owed to tribal members by the US government were based upon fee simple percentages of land ownership. The fewer the number of tribal members on each reservation, the less money was granted by Congress for tribal disbursement. Subsequent laws converted community-owned reservation lands into private lots, making it even easier to take property away from individual Natives should they somehow fail to pay land taxes or have unfortunate run-ins with the law.

Forcing the White concept of blood quantum onto Indigenous tribal members, in other words, is deeply connected to White settler-colonial apartheid in the United States. It is a hegemonic tactic used to whittle down Native populations and US government disbursements along with it.

Ancestry testing through DNA technology risks overlooking the racial histories of Blackness and Indigeneity in the United States.

This type of White-washing usually operates in three ways.

Firstly, it uses contemporary science to downplay the notion of “race” as unscientific. Indigenous science and technology studies scholar Kim TallBear calls this sort of racism “color blind” because it claims that race is a social construct while using DNA to prove that race isn’t real and therefore meaningless.^[4] [Race is of course, a social](#) construction enforced through a plethora of systemic and systematic forces. [It is not rooted in scientific fact](#), but that does not mean that race is a myth. If anything, it proves that cultural constructs can’t be traced back to a genetic source code. Science and social construction come together through racializing epistemologies in the US that are always dependent on biological notions of [similarity and difference in proximity to Whiteness](#). That race is a social construct and not a biological fact changes none of these histories or dynamics of power.

Secondly, genetic testing of this kind risks circumventing tribal authority, especially given that these test results are often conflated with Native blood quantum. [Elizabeth Warren and Donald Trump did exactly that when they each appealed to DNA](#) testing as an impartial adjudicator of scientific truth regarding indigenous identity. In doing so, they reified White epistemologies essentializing race and ethnicity without ever acknowledging (or appealing to) Indigenous authority. DNA testing has never been used by Native American tribes to identify their membership. Tribal citizenship is connected to kinship rather than test kits and chromosomes.

Finally, the third way these ancestry tests White-wash Indigeneity relates to the erasure of tribal nationhood and

jurisdiction. When Warren was using DNA test results to prove her Native American ancestry, the conservative Goldwater Institute [was putting together legal strategies for mutating Indigeneity](#) in the US to the [status of race rather than that of citizenship](#). Citing these strategies in several landmark cases later, Federal courts struck out against the [Indian Child Welfare Act](#) that protects Native children and their cultural heritages against [social genocide and assimilation](#). If being Native in America becomes biological rather than through citizenship in a sovereign nation, then tribal jurisdiction over its children, land and water become absolutely meaningless. The DAPL controversy at Standing Rock reservation, for instance, was not only a religious rights contest concerning sacred space—it was also [a legal battle over sovereign jurisdiction](#) of tribal property.^[5] If Indigenous identity in the US is reduced to race rather than citizenship, then the sovereign rights associated with such citizenship are reduced also.

How we talk about race, genetics, and ancestry matters—[but our onto-epistemological practices](#) in utilizing science and technology around these themes matters more. Though DNA testing companies do not engage in language around race, they certainly make arguments using outdated understandings of ethnic essentialism. [Studies show that](#) when essentialist notions of biology are glued to human classification databases (systematized groupings of human ancestry, culture, ethnicity, etc.) [almost everyone assumes these are really about race](#).^[6] [Other studies show that](#) similar presentations, both by direct-to-consumer DNA testing companies as well as reports by the

media, increase the likelihood of White racial prejudice on an individual level and decrease buy-in for policies aimed at addressing racism on a systemic level. [7] Essentializing modes of knowledge production ignore the ways in which its own practices make identity, ethnicity, and race come to matter.[8]

For more information on Indigenous American perspectives on DNA ancestry testing and tribal affiliation regarding the Warren case, please see the following syllabus compiled by three citizens of the Cherokee Nation, **Adrienne Keene** (@[nativeapprops](#)), **Rebecca Nagle** (@[rebeccanagle](#)), and **Joseph M. Pierce** (@[pepepierce](#)) over [at Critical Ethnic Studies](#).

[Tyler M. Tully](#) is the Arthur Peacocke Scholar of Science and Religion at the University of Oxford where his doctoral dissertation decolonizes predominate approaches in the study of religion and ecology.

[1] Aisha Hassan, “Spotify and Ancestry can use your real DNA to tell your ‘musical DNA’,” September 22, 2018 [https://qz.com/\(...\)ll-your-musical-dna/](https://qz.com/(...)ll-your-musical-dna/) accessed on 21 December, 2018.

[2] Of course, the irony should not be lost here regarding what it means to be a “pure” ethnicity in any sense of the imagination. I’ve purposefully chosen Spain and Ireland in this example since both countries have long histories of genetic incursions (if you will) and ethnic blending. One might argue that to be Irish or Spanish in any sense of the imagination requires that one can never truly be essentialized in the first place, since so much of the culture, language, history, and religion is all dependent upon a tapestry of textures.

[3] For an excellent look into how these technological innovations were also seen as scientific and therefore objective and fact-based while also entirely racializing, see religious studies scholar Louis S. Warren's *God's Red Son: The Ghost Dance Religion and the Making of Modern America*, (New York: Basic Books), 2017.

[4] Kim TallBear and Jenny Reardon, "'Your DNA is Our History': Genomics, Anthropology, and the Construction of Whiteness as Property," *Current Anthropology* 53.S5, (2012), S240.

[5] This episode is typically portrayed in the news in terms of environmental activism or in the academy regarding sacred space. It is both of these things and more. For an excellent overview, see Kyle Whyte, "The Dakota Access Pipeline, Environmental Injustice, and US Colonialism," *Red Ink* 19.1, Spring 2017 and Amber Penn-Roco "Standing Rock and the Erosion of Tribal Rights," *73 National Law Guild Review* 2016: 176-179.

[6] See Christen Rachul, Coline Ouellette, and Timothy Caulfield, "Tracing the use and source of racial terminology in representations of genetic research," *Genetics in Medicine* 13, 2011: 314-319 and Jo Phelan, Bruce Link, Sarah Zelner, "Direct-to-Consumer racial admixture tests and beliefs about essential racial differences," *Social Psychology Quarterly* 77.3, Fall 2014: 296-318.

[7] Carson Byrd and Victor Ray, "Ultimate attribution in the genetic era: White support for genetic explanations of racial difference and policies," in *The ANNALS of the American Academy of Political and Social Science* 661.1, Fall 2015:

212-235.

[8] Here I am riffing off of the similar phrase used by Karen Barad in “Posthumanist Performativity: Toward and Understanding of How Matter Comes to Matter,” *Signs* 28.3, Spring 2003: 801-831.