

DNA, Reconciliation and Social Empowerment

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It is my honour to write a commentary on Alondra Nelson's British Journal of Sociology Lecture, which builds on her seminal acclaimed monograph *The Social Life of DNA: Race, Reparations and Reconciliation after the Genome*.

The Social Life of DNA has already become a key reference point in the fields of Science and Technology Studies and the study of racial politics. For me personally, Alondra Nelson's work has for a long time provided an inspiration in my research on the use of genetics in reconstructing the history of human migrations, and her recent monograph has served as a key text in my teaching on the ethics and socio-cultural significance of the life science, always stimulating deep and fruitful discussion in the classroom.

Nelson's research dissects brilliantly well one of the central problems associated with genetic ancestry research – the appeal that it has for disenfranchised constituencies to use it in order 'to enter into a new political relationship with the past' (MS p.4) and yet the contradictory role that it plays in contemporary racial politics, violating issues of privacy, finding its ways into domains that go beyond its original purpose and putting the tested at risk in relation to the criminal justice system.

Indeed, it is tempting in some contexts to theorise DNA ancestry research and population based genomic mapping exercises as 'the weapon of the weak' which subaltern communities can use as a tool of empowerment in projects of identity arbitration or reconciliation. However, even in those cases where on the surface they are conducted under the banner of the empowerment of the subaltern, they have a strong potential to turn into a tool of subordination, marginalization or oppression.

Part of my work has focused on community-based and nation-wide genomic mapping exercises. Such projects are often described by their proponents as initiatives imbued with liberatory potential, however, they often reinforce already existing categories, even if these initiatives stem from the context of the subaltern (Benjamin 2009, Schwartz-Marin 2011). Earlier genomic mapping exercises had attracted severe criticism from different publics. The Human Genome Diversity Project, which was set up to provide a populations based counterpoint to the Human Genome Project, became seen by the World Council of Indigenous Peoples as an expression of colonial exploitation, as its organizers could not guarantee that it would not produce commercially profitable pharmaceutical products (Reardon 2005, Sommer 2016: 306-307). Some of the countries of the global south in recent decades initiated their own genome diversity projects, ostensibly with the aim of preserving and protecting national genomes. For instance, in Mexico, the claim about the alleged biological uniqueness of the Mexican nation was publicly supported through discourses invoking historical experiences of dispossession and the need to prevent the appropriation of national resources by foreign researchers. It was argued that in the future, genetics could be turned into a tool of oppression for potential consumers in emerging economies and that it was therefore imperative for Mexican publics to prevent national DNA material leaving the country and to support the development of their own genomic science (Schwartz-Marin and Restrepo 2013). In Colombia, genetic research became employed to discern and protect the country's biological diversity, to decode its human history and to support claims for singularity of Colombian cultural and biological identities (Restrepo et al 2014: 61). In India, scientists expressed concern about Indian populations being left out of the world-wide exercises and initiated similar nation-wide genomic mapping exercises (Benjamin 2009, Egorova 2010).

At the same time, relations of domination within these very countries undermined the projects of benefitting the entire population. Although these policies were designed to promote academic and economic independence for local hubs of science and technology, they were also embedded in the global networks and processes of knowledge production. They naturalised national populations in the name of postcolonial empowerment, but at the same time borrowed practices and conceptual tropes from the wider context of ‘genetic labelling’ (Benjamin 2009). Thus, in Mexico, the project of national genomics reinforces the contradiction between the sacralisation of the nation’s indigenous roots and the day-to-day denigration of indigenous communities (Benjamin 2009: 353). Similarly, in Colombia, genomic mapping allowed both to put an emphasis on the mestizo nature of the population and to re-inscribe the inhabitants of specific regions as the other (Wade et al 2014: 504). In Brazil, genetic research set out to emphasize the mixed ancestry of self-identified white Brazilians and was presented as a potential anti-dote to racism, but subsequently was used to criticize race-based affirmative action policies (Kent et al 2015). In India, DNA studies of the history of the caste system provided conceptual space to reaffirm the theory of Aryan migration, to naturalize and pathologise caste groups, while ostensibly asserting the theory about all castes being genetically mixed (Egorova 2010).

Moreover, the very agenda of constructing national or community-specific genomes has been exposed as highly problematic, as the genetic uniqueness of any population proved to be impossible to delimit. For instance, scientists involved in the Mexican genome diversity project themselves asserted that the so called ‘Mexican genome’ could not be either defined or separated from other populations of the world (Schwartz-Marin and Arellano Mendez 2012: 284). In India, researchers from the Indian Genome Variation Consortium have admitted that social communities often did not map onto DNA-generated groupings, and that the term ‘Indian’ was a misnomer in these studies, as it obscured the human diversity of the

sub-continent (Benjamin 2009: 345, 351). Nevertheless, in many countries this type of research continues to develop, which suggests that scientific practices linking biological material to national and cultural human diversity are symptomatic of wider socio-political agendas that privilege naturalist accounts of human difference.

Nelson's lecture highlights with extraordinary insight how the multifaceted potentialities of DNA testing may transpire in ancestry searches used in reconciliation projects in US universities. The lecture demonstrates how, on the one hand, for the descendants of the Georgetown 272 DNA testing could leverage findings of conventional genealogy to trace more distant relationships. However, Nelson also correctly points out that genetic genealogy does epistemological violence to kinship relations of choice and families built in slavery (MS p.15). For African American descendants of the Georgetown 272 'DNA evidence' also presents a special risk if it is used for the purposes of the criminal justice system (MS, pp.15-16).

Indeed, opportunities for benefitting from genetic genealogy are often determined by the position of the tested in the power dynamics present in the fields of contestation in question. Concerns raised by Nelson in relation to the use of DNA techniques among African American constituencies immediately reminded me about the recent developments in the way genetics has come to play in matters of identity arbitration in Jewish communities whose origin histories have been contested. One of them is the Bene Ephraim of Andhra Pradesh, a Dalit group who in the late 1980s declared their descent from the Lost Tribes of Israel (Egorova 2013). During my visits to the Bene Ephraim in 2010-2011, community leaders on a number of occasions expressed a wish to arrange for DNA tests to be performed in their congregation to help them prove to other Jewish communities that they were part of the same lineage. Later, they shared with me that they succeeded in attracting the attention of scientists from a molecular genetics laboratory and had their DNA analysed for the purposes of

establishing their ancestry. The results of this research do not appear to have been published, but one of my Bene Ephraim interviewees told me that the study had traced part of his community's genetic profile to the Middle East and for him it constituted proof of their Jewish descent. He was adamant that neither his overseas Jewish co-religionists, nor Israeli authorities could be expected to believe his family's claims to Jewish descent in the absence of evidence, because their practice was different from that of 'mainstream' Jewish groups. For my interlocutor, DNA results served as the missing evidence of the Bene Ephraim Jewish status that he needed in order to prove his Jewish ancestry not least to himself.

Another community member I spoke to recognized the reductionist agenda of DNA research, but nevertheless saw it as a potent rhetorical weapon to use against those who have raised doubts about their Jewishness, and as a last resort to prove their origin narrative. I argued that in this case, DNA emerged both as a vehicle for transmitting a time-old naturalizing discourse about the alleged Jewish difference, and as a new, subaltern, means for social empowerment. The Bene Ephraim would struggle to provide any material artefacts evidencing their Jewish or Israelite background, however, they profess that they have their DNA, which is an inalienable part both of their bodies and of their Jewish selfhood (Egorova 2013).

Another recent case involving the use of DNA testing in matters of Jewish identity arbitration illustrates well Nelson's insight about the importance of pursuing discerning social commentary on the deployment of genetics to address historical injustices. In the past year, DNA tests have become indexed in political discussions about Russian-speaking Jewish persons trying to prove their Jewish descent in Israel. The Eretz Hemdah Institute for Advanced Jewish Studies in Jerusalem, which provides training for rabbinic scholars, has recently issued a collection of responsa, advising that it should now be possible to determine the Jewish status of a person on the basis of testing their mitochondrial DNA, a segment of

DNA that is transmitted maternally. The ruling is based on a scientific study which claims to have established that about 40% of Ashkenazi Jews are descended from four women.

According to a report commissioned by Eretz Hemdah, there is a 90%-99% certainty that a person bearing specific genetic markers is descendent from one of these women. It is suggested that the new ruling will be promoted as a solution for hundreds of thousands of Israeli citizens from the former Soviet Union who have had difficulty proving their Jewish status for the purpose of marriage and a range of other processes that require one being Jewish in Israel.ⁱ Rabbi Yosef Carmel from the Eretz Hemdah is reported to have said that while the test would absolve about 40% of Russian *olim* (Jewish immigrants) of the requirement to convert, it cannot be used to revoke someone's Jewish status even if they were not found to have the required markers, as only 40% of the general Ashkenazi Jews have them (Israel 2017, Sharon 2017).

The ruling thus contains the promise of social empowerment, just as it was the case with DNA ancestry testing explored in Nelson's important work. Indeed, the ruling's stated aim is to help a group of *olim* who due to historical and political reasons had found themselves in a subaltern position both in their country of origin, where they had been deprived of an opportunity to practice their religion openly, and in the State of Israel, where they cannot take part in some very important social and personal status processes due to not being able to prove maternal Jewish descent. Rabbi Carmel notes that Eretz Hemdah have been working with a *beit din* (rabbinic court) in the former Soviet Union and with scientists 'to research the evidence on this matter intensively and responsively'.ⁱⁱ It also makes it clear that this practice will not disenfranchise any applicant who may be lacking the required marker – 'no aspersions whatsoever can be cast on someone who lacks a link to these four women. Most Jews in the world do not have the gene code in question, so not having it does not at all preclude Judaism.'ⁱⁱⁱ However, of all communities who identify as Jewish but would

struggle to provide material evidence of Jewish status, it makes the genetic route of recognition available only to Jews from the former Soviet Union.

It appears that groups like the Bene Ephraim would be at a disadvantage due to a lack of access to rabbinic authorities and to scientific laboratories in Israel who would be willing both to explore their genetic profile and to consult authorities such as Eretz Hemdah. What prompted rabbi Carmel to consider the use of mtDNA in determining Jewish status was a communication that Eretz Hemdah received from a rabbi based in Europe seeking guidance about a case of a woman who claimed that her maternal grandmother was Jewish, and in the absence of any conventional evidence of her claim, produced a mtDNA analysis confirming that she was a descendant of one of the four founding mothers of Ashkenazi Jews.^{iv} As the religious authorities of the Bene Ephraim are not recognized by Israeli rabbinic specialists, their community would not be able to make use of this line of communication to make their congregations' genetic or other claims to Jewish status known to policy making bodies in Israel should they wish to do so.

At the same time, it also appears that both the case of the Eretz Hemdah proposal and of the tests conducted among the 'emerging' Jewish groups point to the oppressive nature of genetic test usage in matters of identity arbitration even in those cases when such tests are commissioned by the disenfranchised groups or individuals themselves. As the Nigerian lawyer and academic Remy Ilona put it in an interview with the *Times of Israel*, commenting on the DNA tests conducted among the Igbo, who like the Bene Ephraim, have claimed the Israelite descent, the reason why some Igbo subjected themselves to such tests was because they were aware that due to their African origin, their claims were bound to be 'viewed with scepticism' (Lidman 2017). Similarly, in the case of Russian Jews, prior attempts of the Israeli State to use DNA tests to verify a biological connection between a potential repatriate from Russia and a Jewish parent or grand-parent had been described by some Jewish

commentators from the former Soviet Union as racist (McGonigle and Herman 2015). In both cases the tested were put in a position where they had to prove their claims to Jewish status to a political and epistemic regime which out of all sources available to these groups that could potentially evidence their Jewish decent, privileged their DNA, a phenomenon which brings us back to Nelson's observation about genetic genealogy doing epistemological violence to those kinship arrangements that are not based on biological relatedness.

Nelson's lecture created a new and important avenue of inquiry into the role that DNA tests can play in reconciliation projects aimed at repairing the past – highlighting the role that US colleges and universities played in the history of racial slavery. Her work has also opened a fruitful analytical site for comparative research. Nelson shows the potential that DNA has in casting light on the past, but at the same time warns us that '[g]enetic ancestry testing is a vexed instrument of racial reconciliation because it has its foundations in the very racial science it is used to overturn and because its claims to scientific credibility are thin' (MS, p.18). As I attempted to show in my response, theoretical insights from Nelson's ground breaking work could be usefully applied to numerous contexts all over the world where DNA has been used for the purposes of the reconciliation with past injustices, social empowerment, and in matters of identity arbitration.

Benjamin, Ruha (2009) 'A Lab of Their Own: Genomic Sovereignty as Postcolonial Science Policy', *Policy and Society* 28 (4): 341-355.

Egorova, Yulia (2010) 'Castes of Genes? Representing Human Genetic Diversity in India', *Genomics, Society and Policy*, 6 (3): 32-49.

Egorova, Yulia (2013) 'The Substance that Empowers: DNA in South Asia', *Contemporary South Asia*, 21 (3): 291-303.

Israel, David (2017) “Revolutionary Ruling Permits Genetic Testing of Halachic Jewish Status.” 1 October 2017, available on ¹
<http://www.jewishpress.com/news/israel/religious-secular-in-israel-israel/revolutionary-ruling-permits-genetic-testing-of-halachic-jewish-status/2017/10/01/>. Accessed on 7 November 2017.

Kent, Michael et al (2015) ‘Building the Genomic Nation: “Homo Brasilis” and the “Genoma Mexicano” in Comparative Perspective’, *Social Studies of Science*, 45(6): 839-861.

Lidman, Melanie (2017) “Messianic Jews to Nigerians: You’re Not “Real” Jews.” *Times of Israel*, 11 August. Available on <https://www.timesofisrael.com/messianic-jews-to-nigerians-youre-not-real-jews/>.

McGonigle, Ian V., and L. Herman (2015) “Genetic Citizenship: DNA Testing and the Israeli Law of Return.” *The Journal of Law and the Biosciences* 2, no. 2: 469-478.

Reardon, Jenny (2005) *Race to the Finish: Identity and Governance in the Age of Genomics*, Princeton University Press.

Restrepo, Eduardo et al (2014) ‘Nation and Difference in the Genetic Imagination of Colombia’, in Peter Wade et al eds., *Mestizo Genomics: Race Mixture, Nation and Science in Latin America*, Durham and London: Duke University Press.

Sharon, Jeremy (2017) “Who is a Jew?’ Can Now be Answered by Genetic Testing.” *Jerusalem Post*, 7 October 2017, available on <http://www.jpost.com/Israel-News/Politics-And-Diplomacy/New-law-says-genetic-test-valid-for-determining-Jewish-status-in-some-cases-506584>. Accessed on 7 November 2017.

Schwartz-Marin, Ernesto (2011) *Genomic Sovereignty and the Mexican Genome: An Ethnography of Postcolonial Biopolitics*, PhD thesis, Exeter University.

Schwartz-Marin, Ernesto and A. A. Mendez (2012) ‘The Law of Genomic Sovereignty and the Protection of Mexican Genetic Patrimony’, *Medical Law* 31: 283-294.

Schwartz-Marin, Ernesto and Eduardo Restrepo (2013) 'Biocoloniality, Governance, and the Protection of 'Genetic Identities' in Mexico, and Columbia', *Sociology*, 47 (5): 993-1010.

Sommer, Marianne (2016) *History Within: The Science, Culture, and Politics of Bones, Organisms and Molecules*, Chicago: The University of Chicago Press.

Wade, Peter et al (2014) 'Nation and the Absent Presence of Race in Latin American Genomics', *Current Anthropology*, 55(5): 497-522.

ⁱ For all Jewish Israelis, issues of personal status are regulated by the Chief Rabbinate, an Orthodox authority, which adheres to a strictly *halakhic* (pertaining to *halakha*, Jewish religious law) definition of 'who is a Jew'.

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<http://www.eretzhemdah.org/newsletterArticles.asp?lang=en&pageid=48&cat=7&newsletter=2545>. Accessed on 7 November 2017.

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<http://www.erezhemdah.org/newsletterArticle.asp?lang=en&pageid=48&cat=7&newsletter=2544&article=6949>. Accessed on 7 November 2017.

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<http://www.erezhemdah.org/newsletterArticle.asp?lang=en&pageid=48&cat=7&newsletter=2544&article=6949>. Accessed on 7 November 2017.