

## Genetics, Identity, and the Anthropology of Essentialism

In: Anthropological Quarterly, Spring 2002, Vol. 75 (number 2), pp. 323-330

By Paul Brodwin (Department of Anthropology, University of Wisconsin-Milwaukee)

For several decades, anthropology has participated in the general deconstruction of “identity” as a stable object of scholarly inquiry. The notion that individuals craft their identity through social performances, and hence that their identity is not a fixed essence, fundamentally drives current research into gender and sexuality. The notion that collective identity emerges out of political struggle and compromise underlies contemporary studies of race, ethnicity and nationalism. The anti-essentialist mood of today’s anthropology fits with wider currents in philosophy (e.g., critiques of the autonomous, self-sustaining subject within Western metaphysics) as well as feminism and cultural studies (e.g., examination of the unconscious aspects of identity formation and the political resistance enabled by multiple and hybrid identities) (see Hall and Du Gay 1996, McRobbie 1994).

Outside the academy, however, and to the dismay of anthropologists who fancy themselves as the cultural avant-garde, essentialist identities grow ever more powerful and seductive. New genetic knowledge, for example, adds the cachet of objective science to the notion that one’s identity is an inborn, natural, and unalterable quality. Rapid advances in sequencing and analyzing the human genome have strengthened essentialist thinking about identity in American society and elsewhere, and anthropologists can help elucidate what is at stake.

Emerging genetic knowledge thus has the potential to transform contemporary notions of social coherence and group identity. I am the co-principal investigator of an interdisciplinary group pursuing this topic, funded by a multi-year grant from the National Human Genome Research Institute through its program on Ethical, Legal and Social Implications (ELSI). Our research team, comprising leading bioethicists, geneticists, and ethnic studies specialists, is building a common vocabulary and conceptual framework for the effects of current-day genetics on notions of individual and collective identity, and hence the fundamental basis for social connection.

Why is this a compelling question for anthropology? As genetic technologies move out of research laboratories and into public life, there arise enormous debates about their proper use and interpretation (see Brodwin 2000). The ramifying debates about genetic technologies (which appear in court cases, internet sites, articles and books) are driven by larger questions about inclusion and diversity in American society, as Rayna Rapp (1999) and Kaja Finkler (2000) have demonstrated for genetic testing and predictive diagnosis. Not surprisingly, contemporary debates over claims of identity (who I am, fundamentally) and of social connection (who I belong with, fundamentally) have very high stakes. Moreover, the meaning of the “fundamental,” in that last sentence, changes in the presence of genetic evidence.

For example, tracing your ancestry – via a pattern of particular alleles, or mutations on the Y chromosome or in mitochondrial DNA – has become not just a laboratory technique, but a political act. Who in our society requests this sort of DNA analysis, and who provides it? Once people learn the results, who controls what those results mean? It is no longer just geneticists and population biologists, but also political activists, individuals claiming inclusion in a particular ethnic, racial, or national group, and those who must decide to accept or reject their claims. To interpret the results of research with genetic markers means not just judging whether the laboratory used the right population-specific allele or had a large enough sample size. It also involves judging the worth of genetic knowledge against other kinds of claims to authentic identity and group membership (oral history, written documentation, cultural practices, inner convictions). What is at stake in genetically-based claims of identity or rightful belonging is not just good or bad science. What is at stake is also personal esteem and self-worth, group cohesion, access to resources, and the redressing of historical injustice.

It turns out that setting the record straight about who is related to whom is contested right from the start, and for good reason. Adding genetic evidence does not make things any easier; it might even make things harder. In any case, it adds an entirely new set of experts to the debates (not just the archivist, historian, the professor of ethnic studies or anthropology, but also the bioethicist and geneticist). At the end of my essay, I will raise some questions about the place of expert authority in this arena. But let me begin with some axioms for thinking about identity claims in the wake of contemporary genetics.

The techniques I mentioned above – use of genetic markers, especially Y chromosome and mitochondrial DNA mutations – generate knowledge of ancestry, the links between people in the present and their biological forbears. They announce a long-term generational connection. But people always use knowledge of ancestry to illuminate social connections in the present. Knowledge of ancestry ratifies or even creates a social connection in the present. For example, geneticists in England have used Y-chromosome markers to demonstrate that at least one of the clans of Lemba, a tribe in South Africa and Zimbabwe, may be descended from Semitic peoples. Lemba interpreted the genetic finding as confirming their oral tradition of Jewish descent. It also confirmed their conviction that they are Jews, which they already believed because of such practices as keeping one day of the week holy, circumcising newborn males, and not eating pork. However, what does it mean to say that this evidence “confirms” the Jewish identity of Lemba? After all, Jews themselves have their own complex and historically rooted rules for judging membership (which govern the efficacy of conversion, specify the matrilineal inheritance of Jewish identity, etc.). Genetic evidence will probably not fit perfectly into these long-standing and canonically-based rules of ethnic inclusion and exclusion.

For the Lemba, finding out that they were “genetically Jewish” (a loaded term) confirmed their oral tradition, but it did not lead to mass immigration to Israel and demand for citizenship papers. But what if it had? (Remember that Israel offers the “right of return” to all Jews.) It’s an important thought experiment, and it illustrates my major

point. To claim a certain social identity always implies certain rights and obligations. To specify what counts as legitimate belonging will affect how people respect such rights or enforce these obligations. For example, specifying what counts as a mother-child relationship (in a world of sophisticated surrogacy technologies where children can have two or even three mothers) is prior to deciding what mothers and children owe to each other. Specifying who counts as a citizen precedes conventional judgments of what a nation and its citizens owe each other and what sort of moral claim they have on each other.

We must therefore ask, how does new genetic knowledge change the ways people claim connection to each other and to larger collectivities? How, in turn, does this process change the resulting webs of obligation and responsibility: personal, legal, moral, and financial? Knowledge of genetic connection alters how we imagine our “significant same”: those people who are significantly like me, connected to me, and hence the same as me in some categorical sense. Genetic knowledge has the power to change the group with whom we share a “deep, horizontal comradeship” (Anderson 1991). The changes could unfold in two ways: (1) such knowledge may undermine received wisdom about family, ethnic, and racial identity or (2) it may shore up conventional understandings of identity. Of course, knowledge itself doesn’t change anything. Particular people use such knowledge either to undermine or buttress conventional understandings. Even more, they use the knowledge as historical actors, aware of their group’s unique tragedies and longed-for future, and also as political actors seeking out compromise and short-term gains.

The possibility of tracing genetic links between African-Americans and populations in West and Central Africa illuminates similar issues, and it also paves the way for my final point about the ambiguities of professional expertise. Is it possible to use DNA markers to trace a genealogical link between individuals or families in the USA and ethnic or tribal communities in Africa? Is it feasible to do so (in terms of time and money, access to individuals in African countries willing to donate their genetic material, etc.) How should genetic evidence be integrated with oral history and archival evidence (manifests of slave ships, plantation records, contemporary chronicles, etc.)? The turn to genetics obviously demands careful methodological thinking.

But it also raises overarching and quite sensitive political and ethical questions. To begin with, we should interrogate the very way we discuss this use of genetic technologies. Who is posing the questions, and before what audience? At what point, in the long history of American racism, have Americans begun to raise these questions about genetic and cultural connections? How do the questions arise from popular self-consciousness about multi-culturalism? We should also recognize the emotional stakes in the discussion. Culture loss, as experienced in the Middle Passage, is something to be mourned. To refer to this use of population genetics as the “restoration of African-American genealogy” or a “vital step in helping . . . heal the historical wounds of slavery” (in the words of supporters of such tests quoted in the national media) already raises expectations and sets in motion a powerful narrative of loss and redemption.

Again we must ask, how does the addition of genetic evidence change the way people figure their membership in a certain group? Think of the experience of Jews who visit the Western Wall in Jerusalem. Many American Jews who visit it report an unexpected experience: their collective history has suddenly become material, rendered tangible and visible. Visiting it, seeing it, and touching it creates the sense that their group's myth has just been authorized as non-fiction. A mere notion or shared recollection of the past has become certified as objective history. (This is a crucial change, since notions of objective history typically function as charters for political mobilization in the present.) Establishing genetic connections is thus enormously compelling for people who mourn the passage from homeland to diaspora, and whose collective identity involves the sense of unjust dislocation and culture-loss.

However, there are also potential dangers to this use of genetic evidence. In the case of African-American ancestry projects, it may provide a competing basis for ethnic identification (e.g., Yoruba, Fulani, Wolof) which can undercut the sense of shared interests (and hence unity) among African-American communities in the USA. Giving people an alternative basis of ethnic identification may well run into the same opposition as the used of "mixed race" as a American census category, and for the same reasons. Moreover, what new collective identity terms should people use? Would it make sense to use ethnic terms (such as Yoruba)? Wouldn't regional terms (e.g., the Casamance region, the Niger delta) be more appropriate, given the scientific frameworks of population genetics? What about terms such as Senegalese or Malian which refer simultaneously to a geographic region and a political entity (albeit one created in part by European colonialism). In general, such questions demonstrate how genetic evidence can destabilize long-standing patterns of community membership. Additionally, genetic knowledge might also provoke "ethnogenesis" or the emergence of novel ethnic formations.

Mitochondrial DNA and Y-chromosome tracing concerns genealogical descent in exclusively the female or male line, respectively. But precisely because of the nature of New World slavery, many people have complex mixed genealogies, created by sexual exploitation and the deliberate mixing of enslaved Africans during the Middle Passage and on American or Caribbean plantations. Basing an account of one's "cultural past" on genetic evidence may thus substitute a fictively pure genealogy for a more historically accurate, but mixed, one. We need to ask, therefore, what people wish to accomplish through the use of genetic tracing of African ancestries. Arguably, people here are turning to genetic evidence in order to stabilize a particular historical consciousness: the conviction of connectedness to a certain cultural group over vast distance and centuries-long separation. Such evidence becomes compelling for two reasons. First, it acquires the general cachet of science as the ultimate guarantor of truth. But second, people regard genes as "more stable over time than more putatively accidental aspects of identity" (such as nationality, citizenship, religion, etc.).

To be blunt: are people being seduced by the promise of a pure, but fictive genealogy? Consider the following example. Y chromosomes are passed only through the male line, and an individual has 16 male ancestors in the 5<sup>th</sup> preceding generation. If you

had 1 European ancestor in that generation, and the rest of your male (and female) ancestors were African, than you would be 1/32 European, but phenotypically black, and of course culturally black in the USA. But if that European man happened to be your father's father's father's father's father, then Y-chromosome typing would place your ancestry entirely in Europe (for example, in some Scottish village). Finding that you are genetically descended from a Scottish highlander will certainly de-stabilize your ethnic identity! Such knowledge ruptures the backward-looking narrative that you had hoped to confirm.

Do the experts in relevant fields (biological and cultural anthropologists, geneticists, ethicists, etc. ) have a professional responsibility to ensure that the users of African-American genetic genealogies don't make mistakes -- that is, that they don't succumb to a population-based genetic essentialism? To begin with, no responsible geneticist would say that there exists a single gene for a complex behavioral trait, let alone the marker for an ethnic-racial group. A gene is simply a long string of base nucleotides, and the passage from nucleotide to protein to anatomical structure to behavior to collective behavior to self-conscious, historically-emergent notion of ethnic distinction is very long indeed. So, the scholarly (and left-liberal) opposition to "genetic essentialism" is not really a reaction to contemporary genetics, but rather to its reception. The essentializing occurs at the level of popular reconstructions of genetic science, and professional anti-essentialist interventions should be directed there as well.

What is the place of expert knowledge (of the geneticist, the philosopher, the anthropologist) in the scenario about Y-chromosomal tracing and African-American genealogies (or similar genetic identity projects)? Is it to replace a misunderstanding of genetics with a true understanding? Is it to warn the "users" of genetic knowledge not to make mistakes? Is it to become "culture broker" between lay and scientific views? If so, should we carry out the brokerage in only one direction (make the sure the lay views conform to the scientific views?) Why not the other way around? What if the misunderstanding of genetics, in a particular case, actually has politically advantageous (and progressive) effects (such as increased pride in one's heritage)? Should expert voices still attempt to demolish genetic essentialism? One alternative use of expert knowledge is to support what one scholar calls strategic essentialism. From this standpoint, the ratification, via genetic knowledge, of one's collective memory ("my group's story/memory just become scientific history; its 'fiction' just became non-fiction") should not be corrected. Redemptive memory carries its own justification; it has strategic uses given certain oppressive political realities. Therefore, the re-possession of a dis-possessed past should not be blocked by an otherwise salutary warning against genetic essentialism (cf. Williams and Chrisman 1994: 11).

Such questions about expert authority – expert for whom, and to whose benefit? – must be asked anew for each case: Lemba identity as Jews, African-American ancestry projects, and the use (or non-use) of genetic evidence for various identity claims among Native Americans. In the contests over recognition, expert authorities do not stand outside or above the fray. Their opinions affect who controls recognition and how claims of connection are evaluated. In the long run, they also affect how resources get allocated

and how people imagine their “deep comradeship” and authentic selves. Entering this field demands humility as well as attention to who is participating (and not participating) in the debate and among the circle of experts.

Nonetheless, certain questions do cry out for anthropological expertise. Why does genetic evidence prove so compelling in some cases (e.g., among diasporic Jews and certain voices in the African-American community) and not in others (notably Native Americans)? Why is it easily accepted by some groups, but the target of extreme suspicion in others? The availability of genetic tracing surely alters the playing field of identity claims, but it does so differently in each case, and anthropologists can help pinpoint the historical and political factors at work. Current debates over genetically-based identity claims thus challenge the reflexive anti-essentialism of contemporary anthropology. Yet they also re-animate the historic mission of our discipline: to conceptualize cultural difference in precise and politically-progressive ways.

Acknowledgements: Research has been funded by a grant from the National Human Genome Research Institute, Program on Ethical, Legal, and Social Implications (ELSI): “Ethnicity, Race, Citizenship: Identity After the Human Genome Project.” Thanks to Carl Elliott (PI), Laurie Zoloth (co-PI), Mark Thomas, Francoise Bayliss, and other grant participants. Please direct comments to the author [brodwin@uwm.edu].

#### References:

Anderson, Benedict 1991. *Imagined Communities: Reflections and the Origins and Spread of Nationalism*. London: Verso Press.

Brodwin, Paul (ed) 2000. *Biotechnology and Culture: Bodies, Anxieties, Ethics*. Bloomington, IN: Indiana University Press

Finkler, Kaja 2000. *Experiencing the New Genetics: Family and Kinship on the Medical Frontier*. Philadelphia: University of Pennsylvania Press.

Hall, Stuart and Paul du Gay (eds) 1996. *Questions of Cultural Identity*. London: Sage Publications.

McRobbie, Angela 1994. *Postmodernism and Popular Culture*. London: Routledge.

Rapp, Rayna 1999. *Testing Women, Testing the Fetus: The Social Impact of Amniocentesis in America*. New York: Routledge Press.

Williams, Patrick and Laura Chrisman 1994. *Colonial Discourse and Post-Colonial Theory: A Reader*. New York: Columbia University Press.

Filename: AnthroQuart1.doc  
Directory: A:  
Template: C:\WINDOWS\Application  
Data\Microsoft\Templates\Normal.dot  
Title: Comments for Genetics and Identity working group meeting:  
Minneapolis, August 2001  
Subject:  
Author: Paul Brodwin  
Keywords:  
Comments:  
Creation Date: 9/4/01 10:00 AM  
Change Number: 21  
Last Saved On: 5/21/02 7:41 PM  
Last Saved By: Paul Brodwin  
Total Editing Time: 140 Minutes  
Last Printed On: 5/22/02 9:11 AM  
As of Last Complete Printing  
Number of Pages: 6  
Number of Words: 2,842 (approx.)  
Number of Characters: 16,201 (approx.)