

# Race, ethnicity, ancestry and human genetic variation 1945-2013

*Workshop 1, April 2-4, 2014*

## **Theme**

How do social and cultural notions of 'ethnicity', 'race' and ancestry interact with the production of scientific knowledge about genetic ancestry and human genetic variation? The workshop will deal with this question, including its ethical dimension.

We will discuss ongoing processes and historical questions about the continuity or discontinuity between the racial typologies of "old" physical anthropology and present day human genetic variation research.

## **Abstracts**

*Blood groups and the rhetoric of 'neutrality' in mid-twentieth century human genetics*

**Jenny Bangham**

During the middle part of the twentieth century, blood groups were made into pre-eminent objects of human genetic research and powerful markers for producing human biological difference. They were produced abundantly in medical settings, and circulated between transfusion centres, public health institutions and genetics laboratories, where they served multiple functions as diagnostic tools and as genetic data. Blood groups were also mobilised in discourses relating to disciplinary politics, national identities, the Cold War, and the establishment of postwar international institutions. Focusing on Britain, my paper discusses the construction and deployment in different overlapping political contexts of a rhetoric of 'neutrality', which followed blood groups from 1930 to their heyday in the mid-1950s.

*Jenny Bangham is a research scholar at the Max-Planck-Institut für Wissenschaftsgeschichte, working on the practices, institutions and representations of human genetics. Jenny's current project concerns how blood groups were made into pre-eminent objects of genetic research and powerful markers for producing biological difference.*

*Population studies and the ethics of representativeness*

**Hallvard Fossheim**

In population-genetic studies, populations are normally defined by the researcher at the outset, and the data is gathered on the basis of this definition. This state of affairs

in some cases raises two ethical conundrums that should be faced by the investigator before launching such a study.

(1) If the group is in any way racially/ethnically determined, the researcher has a responsibility to acknowledge the fact that the relevant group identity is not simply the aggregate identity of the individuals involved, but is something that ought to be respected in its own right. (2) If the ethnic group in question is not unproblematically defined beforehand—in a way about which there is broad consensus within as well as outside the group—the researcher has a *prima facie* responsibility to ensure that alternative understandings are appropriately acknowledged.

I will argue that the common denominator in both issues is the question of representativeness, and that a solution in terms of representativeness will provide viable replies to each of them. As part of the argument, I will suggest a general solution to the challenges relating to determining a reasonable and required division of labour between researchers and participant groups in ensuring a responsible consent process.

*Hallvard Fossheim is Dr.art in philosophy, Director of The National Committee for Research Ethics in the Social Sciences and The National Committee for Research Ethics on Human Remains, which performs ethical evaluations of research on human remains.*

### ***Indi-gene: On Some Locations of Culture in Contemporary India***

#### ***Kriti Kapila***

The end of the last century also saw the maturation if not the culmination of several large-scale mapping projects at the global level concerned with trying to figure out the interrelations between the origins, and migration and sometimes the wellness of the world's populations. *Prima facie*, it looked like a lot of big data were being brought to bear on each other. Information contained in the multiplexity of human and non-human environment using high-end science and technology and relatively low-end social sciences and humanities were being cross-referred to solve the original cosmic puzzle – who are we and where do we come from? There was no doubt that the advances in the biological sciences were the chief catalyst in bringing about these mapping exercises in the first place.

At the core of these fascinations was a common question about origins – of the physical world and its journey to the present, and of human life and the signatures of its past in its present form. But the quest around the origins of human life was also framed by another pre-occupation – a uniquely human one at that, and that is a preoccupation with human difference. These preoccupations with origins and difference pose their own distinct dilemmas – that of time and relatedness. I want to discuss these dilemmas in the light of the explorations on the research being conducted in India on genetic histories of population groups in India, and what relation if any there exists with the rise of the category of the indigenous on the Indian political landscape.

In India, the preliminary mapping of the historical DNA of population groups was first completed in the 1990s, with a view to identifying routes and patterns of historical migrations (Majumder, et al 1992). As this research becomes further advanced, its dissemination – concerted and inadvertent, by the Indian state, throws up familiar and new questions regarding the deployment of originary and boundary-making capacities of culture and difference. This paper tries to dis-assemble the culture-concept and models of relationality inherited in the state research on historical genetics of Indian population groups. Despite the use of the same canon of scientific concepts and methods used in other similar large scale mapping exercises, the investment in identifying the biological markers of geographical origins and the genetic determinants of social boundaries in this research in India speaks to very different concerns, than say that in France (cf. Rabinow: *French DNA*, 1999), Israel (cf. Abu El-Haj: *The Genealogical Science* 2012), and the Netherlands (cf. Taussig: *Ordinary Genomes* 2010). These differences in insight and intent shed light on the pre-theoretical commitments in scientific knowledge production especially in this context where governmental and epistemological pursuits often overlap, or at least cannot be disentangled with great ease.

*Kriti Kapila is a social anthropologist and Lecturer in Anthropology and Law at King's India Institute, King's College London. She has recently completed a manuscript entitled Domestic Modern: The Work of Law in Contemporary India. Her current research focuses on intellectual property rights in biological and cultural goods in India.*

### ***Exceptional and fundamental: Indigenous people in human biology and postcolonial science***

**Emma Kowal and Joanna Radin**

Human populations once known as “primitive” have long attracted interest from scientists who saw them as portals to an earlier moment in the past. In the mid-twentieth century iteration of this interest, Indigenous peoples were prized because human biologists believed that members of “civilized” communities had evolved in ways that put them out of sync with their environments and rendered them less suitable for studying human evolution and adaptability. Scientists believed blood from ‘primitive’ bodies contained beneficial somatic signatures and genetic mutations accumulated through millennia of living in a state of adaptive equilibrium. The perceived imminent endangerment of so-called primitive peoples allowed the salvage of this blood to be cast as urgent and essential to ensuring the future of the species. Through the eyes of human biologists, members of such communities were understood to be both fundamental and exceptional: it was their apparent lack of social and cultural change that made them uniquely and essentially biologically human.

In the late 20<sup>th</sup> century, Indigenous people worldwide mounted a critique of Western research. The Human Genome Diversity Project was a particular focus of concern about neocolonial science and biopiracy. As a result of these critiques, national and

international regulators have produced specific guidelines for research in Indigenous communities. In many countries, research with Indigenous populations must conform to more rigorous ethical standards due to their rights as 'first peoples', their experiences of colonial exploitation, their cultural distinctiveness, and their political, cultural and economic vulnerability.

In the last few years, bioethical scholarship on how genomic research participants should be regarded has begun to echo Indigenous research ethics. Participants should be treated 'like a community' with shared interests and risks, should have control over future research on samples collected from them, and their relationships with researchers should be explicitly based on trust. These have all been features of Indigenous health research ethics for over two decades. Indigenous people are once more both exceptional and fundamental, no longer the most 'biological humans' but now the most 'human biospecimens'. They are at once a special case and the benchmark for the ethical treatment of human subjects.

This paper argues that the model of Indigenous peoples as 'exceptional and fundamental' is a mutating feature of 20<sup>th</sup> century human biology and 21<sup>st</sup> century postcolonial science, that carries forth even as it transforms centuries old idealizations of the primitive. We consider the significance of this apparent continuity between two eras in human science that are presented as vastly different. What relation exists between the position of 'primitive tribes' in 20<sup>th</sup> century human biology and that of 'Indigenous peoples' in 21<sup>st</sup> century genomic research? What are the implications of this relation for the emancipatory promises of postcolonial science? What part did and does 'race' play in these constructions? We join historical and anthropological forces in an attempt to answer these questions.

*Emma Kowal is senior research fellow supported by a Australian Research Council Discovery Early Career Researcher Award. She is a cultural and medical anthropologist and has previously worked as a doctor and public health researcher in Indigenous health settings.*

*Joanna Radin is an assistant professor in the Section for the History of Medicine at Yale University. Her research examines the social and technical conditions of possibility for the systems of biomedicine and biotechnology that we live with today. She is particularly interested in the history of scientific collections, anthropology, public health, humanism and research ethics.*

### ***Constructions of biological difference between Sami and Non-Sami Scandinavians (1930-2000)***

**Jon Røyne Kyllingstad**

The project studies how physical anthropologists and geneticists studied biological differences between Sami and non-Sami Scandinavians from the 1920s to today. The

aim is to understand how shifting scientific conceptualizations of ethnic groups, races and populations have been influenced by – and themselves have influenced – shifting cultural and political notions of ethnicity. The project aims to explore the degree of continuity or discontinuity between the racial typologies of the interwar physical anthropology and the notions of human biological difference in present day human genetic variation research.

In my presentation I will discuss how archaeologists, ethnographers, linguists, physical anthropologists and geneticists have handled questions about the prehistoric settlement of different ethnic groups in northern Scandinavia. I will put forward some preliminary thoughts about the shifting and sometimes mutually contradictory concepts of “race”, “ethnicity”, “population” and “culture” that have underpinned these debates. I will discuss how academic discourses on this question have been connected to ongoing political and cultural struggles over cultural and territorial rights, ethnic identities and indigenesness.

*Jon Røyne Kyllingstad is a historian, senior curator at the Norwegian Museum of Science and Technology, and member of The Norwegian National Committee for Research Ethics on Human Remains.*

### *In our bones? Genetics, archaeology and the search for ancestors in Scandinavia*

**Åsa M. Larsson**

The study of ancient DNA studies has increased in scope and importance on an exponential level in the past 20 years. The results also get wide coverage in the press compared to any other archaeological research, quickly permeating the public perception on what can be stated about prehistory and past peoples. I will give an overview of the state of ancient DNA studies in Sweden and the problems that arise when geneticists and archaeologists try to communicate across disciplines. I will also highlight the increasing role of press releases and PR strategies from universities and high impact journals on how researchers present their conclusions. In the rush to publish first and capture the center stage, ethical questions and nuances takes a back seat. I will show examples on how these studies are presented in the general press, and how the conflict between scientists and the humanities has become part of the narrative by journalists, with archaeologists presented as ‘anti-technology’.

*Åsa M. Larsson is an archaeologist and osteologist, with a PhD on Neolithic Sweden from Uppsala University, Sweden. Currently working as Director of Societas Archaeologica Upsaliensis (SAU) in Uppsala, a foundation doing rescue archaeology and osteological analyses.*

## ***From Calipers to Sequencers: Physical Anthropology in Greece and the Construction of Racial and National Identity, 1950's to present***

**Ageliki Lefkaditou**

During the years of political and social turbulence that followed the Greek War of Independence (1821-1832), the idea of a lineal continuity between ancient and modern Greeks promoted the homogeneity of racial, cultural and nationalistic elements, and at the same was used to introduce the country to other nations and reinforce its claims to sovereignty. Greek physical anthropology, following the example of historical, archaeological and literary studies, actively contributed in constructing, consolidating and promoting this view. But Greek physical anthropology was also closely linked to the international disciplinary context. During its first years in the late-19th century, it was highly affiliated with the French anthropological tradition while after the 1920s became much more closely associated with German physical anthropology and racial psychology. In the decades to follow, however, and as the overarching questions and aims remained more or less unchanged, new people, affiliations and localities for research emerged. The passage from typological conceptualizations and research methods, however, did not occur until much later in the 1970s, and still remained somehow incomplete as the recurring questions of origins demanded fixed identities. A case to the point is the treatment of the Muslim minority in Thrace by both physical anthropologists and population geneticists, who have tried to distil their Greek-ness despite the apparent differences in physical appearance, language or culture.

In this paper, I will attempt a first presentation of my study, which explores how physical anthropology and human genetic variation research have influenced the construction of racial and national identity in Greece from the 1950s and on. And vice versa, I will suggest how changing political ideologies and cultural understandings might have impinged on scientific conceptualizations of these identities. The aim of this initial discussion is to make manifest the close entanglement between science, the public and the state in conceptualizations of race and ethnicity in Greece.

*Ageliki Lefkaditou is a historian of science, and a postdoctoral researcher at the Institute of Health and Society, University of Oslo and the Norwegian Museum of Science and Technology.*

## ***Race, Region and Time: Or the forensic presence of the past***

**Amade M'charek**

DNA has come to play an increasingly leading role as a technology of belonging, a technology to learn about who we “really” are. There is a growing scholarship on population genetics and ancestry testing and how they contribute to notions of belonging. In this paper I will attend to novel initiatives where geneticists and archeologists have embarked on a collaborative endeavor aimed at re-creating the past. My cases come from the Netherlands where a large number of cities have started

to facilitate such archaeo-genetic projects and to device them in such way as to draw citizens in and to engage them with the histories of the region. One of the effective technologies of engaging the public is through craniofacial reconstruction, that is, the giving of a face to skeletal remains and therewith to the past and the present of the region.

In these projects, so I argue, race is an *absent presence*. It is a slippery object that keeps shifting and changing. Now, most research on race has attended to difference and the politics of difference. In this paper I suggest that we need to shift focus and attend to *sameness*. Sameness and processes of making same might help us to grasp the absent present-ness of race. I will in particular focus on the face and face making, as part of craniofacial reconstructions. Although the face seems an ultimate identifier of individuality, following Gilles Deleuze and Félix Guattari I want to suggest that face is an effect of a *machinery of facialization* that is aimed at producing sameness. Moreover this “abstract machine of faciality” also functions as an operator of time. The face then becomes a locus where different temporalities are crumpled as to enact the past in the presence. Attending to technologies of sameness and the folding of time might thus help us to unravel race in settings where race seems irrelevant all together.

*Amade M'charek is associate professor at the Department of Anthropology of the University of Amsterdam and co-director of the research program group Health, Care and the Body. Her focus is mainly on genetic diversity, population genetics and forensic DNA practices. Her interest is in the ir/relevance of race in such practice and the ways in which race is done in them, and in the relation between the individual and the collective.*

### ***What is (in) a Population? Scientific and Political Representations in South Africa***

**Katharina Schramm**

This paper seeks to explore the dynamics between current practices of genomics and emerging political subjectivities in post-Apartheid South Africa, a society with a long and highly contested history of race-based scientific sampling and typology.

In the wake of recent demands for the return of human remains that had been collected from the early twentieth century onwards as part of the scientific projects of physical anthropology, anatomy and archaeology, descendant communities have frequently (though not always) embraced population genomics as a means of proving their claims to ancestral remains and collective identity. While physical anthropology in these debates is being criticized as ‘race science’, genetics is viewed as a more neutral and, above all, beneficial discipline. However, the sampling strategies of contemporary population geneticists largely overlap with those of earlier disciplinary conventions.

In order to understand the different interpretations of the meaning of race and population in these debates as well as their impact on perceptions of citizenship and political subjectivity, I will look at two interrelated themes: firstly, at the relationship

between disciplinary histories and contemporary categorizations and secondly, at the tense relationship between notions of 'descendant community' vs. 'population'.

**Katharina Schramm** is assistant professor for Social Anthropology at the Martin-Luther-University Halle-Wittenberg. She has published widely on race and identity politics, including an edited volume "Identity Politics and the New Genetics: Re/Creating Categories of Difference and Belonging" (Berghahn 2011, with David Skinner and Richard Rottenburg). She is currently working on a manuscript "The Stones, the Bones, and the Genes" which looks at scientific and public debates on race and human origins in post-Apartheid South Africa.

### ***Race, ethnicity and populations in post-revolutionary Mexico***

**Edna Maria Suárez-Díaz**

One of the first social revolutions of the 20th century, the Mexican civil confrontation (1910-1920) set forth promises of social and economic justice for poor rural populations, where the majority of indigenous peoples lived. Very soon after the revolution ended, indigenous populations were incorporated into the state practices of Mexico's post-revolutionary regimes; revolutionary promises translated into state policies and an evolving nationalistic discourse on indigenous populations that reached its peak by the mid-1930s. Though "race" was basically erased from public institutions and discourses, it remained hidden in the new approach to indigenous populations of the 1940s up to the 1990s, when the Chiapas Zapatist movement shattered beliefs, local and federal laws, and federal indigenous institutions.

In this paper I will present the Mexican nationalistic discourse on indigenous populations, as expressed in the "practical anthropology" of Manuel Gamio (a student of Franz Boas) and other political figures of Mexican social anthropology, such as Alfonso Caso (a recipient of the Viking Medal in 1951). Mexico's "indigenismo" was incorporated in health and education programs that extend from the 1950s to the 1970s, and served as a medium for medical and genetic research. The Mexican case, also, is relevant to problematize the usual view of 20<sup>th</sup> century human genetics, according to which human populations become salient categories only after World War 2, and their prewar treatment by state institutions is linked to eugenics – understood in a narrow sense.

**Edna Maria Suárez Díaz** is professor in the History of Biology and the Philosophy of Technology at the Universidad Nacional Autónoma de México.

## *Human variation: A biosocial perspective*

**Gisli Palsson**

Inevitably, the discipline of anthropology is part of the ongoing negotiation of the boundaries between the social and the biological, given its conventional fragmenting of Anthropos. This is illustrated, I shall argue, by the central notion of human variation and differences. Social and cultural anthropology have usually shown minimal interest in the issue, leaving it for those concerned with the 'biological' domain – in both anthropology and other fields, including biology and medicine. While biological and physical anthropologists have been keenly interested in human variation, however, often treating it as the *defining* element of their subdiscipline(s), for them 'difference' has tended to be taken for granted, remaining strangely inert as if the framework of observation and the parameters of variance to be explored had been fixed for all times. This article suggests that the issue needs to be problematized and reframed. Indeed, it may represent one of the 'cutting edges of the social sciences ... in helping bring the social and the biological "together" today', to refer to one of the questions in the proposal 'Biosocial Matters'. Recent theoretical developments in anthropology, sociology, and related fields – developments often associated with the notions of 'biosociality', 'naturecultures', 'embodiment', and 'entanglement' – as well as advances in the study of 'life itself', including microbiotics and epigenetics, I suggest, contribute to the growing evidence of an expanded and relational body. Keeping in mind that the notions of 'biology' and 'the body' have been radically socialized, at the same time as the notions of 'social theory' and 'society' have been thoroughly embodied and materialized, it seems pertinent to rethink human variation. Thus, for instance, language, speech, and accent, represents aspects of human variation, no less than DNA signatures, microbiomes, and cephalic proportions and measurements. Given such rethinking, I argue, the exploration of human variation becomes the joint project of 'social' and 'natural' fields of scholarship. In such a project, however, variation should not be seen as the mapping of states of being but rather as the tracing of biosocial becomings.

*Gisli Palsson is professor of social anthropology at the University of Reykjavik and Visiting Professor, Social Science, Health, and Medicine, King's College, London. He has published extensively on Human Genomics and its interaction with the identities of individuals and groups.*

## *Indians, mestizos and shades of "primitiveness": Human biological diversity research in Brazil in the post World War II period*

**Ricardo Ventura Santos**

In the late 1950s and early 1960s, human population geneticists started research projects in several parts of the world, from the Amazon region to Papua New Guinea, focusing on the so-called "primitive populations". Based on methodological and

theoretical perspectives from the neo-darwinian synthesis, one of the main interests of the researchers was to understand the conditions under which human variability arose, based on the assumption that the demographic and genetic dynamics of the “primitives” were closer to that which had prevailed during most of human evolutionary history. As part of this perspective, several research projects were initiated in Brazil, undertaken by influential human geneticists like James Neel (University of Michigan), Francisco Salzano (UFRGS, Brazil), Newton Morton (University of Hawaii) and Francis Black (Yale). This paper aims at discussing how Brazilian native populations became prominent “epistemic subjects”, to use an expression of the historian of science Warwick Andersen, in the global debates about patterns of human variability in the second half of the 20<sup>th</sup> century. We explore how the notion of “primitiveness” was constructed by the scientists, suggesting that it was part of a discursive strategy which aimed at placing these populations as representatives of the (biological) history of the humanity at large. We also argue that the perspective to learn “lessons from the primitive peoples”, as suggested by the title of a well-known article of James Neel in *Science* in 1970, was closely related to anxieties of the Cold War period.

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