

## Varieties between Laboratory and Society: A Cultural History of Knowledge about Human Biodiversity in the 20th Century

Human biodiversity—or those phenomena subsumed under this term today—has always been quite a puzzling object of inquiry. Since early modern times, scholars have studied numerous human features in an effort to discover a biological order of humankind, to elicit a “natural sense” from diversity and decipher nature’s implications for the right order of society. In doing so, they produced data and analyses, as well as proposals on how to handle diversity. But the knowledge produced never seemed to unravel the mystery of human biodiversity fully: it remained preliminary, incomplete, unsatisfying, and therefore, as scientists repeatedly suggested, only future investigations would allow groundbreaking new insights.

Human diversity studies in the 20th century have commonly been perceived as “race science” and thus as a “pseudo science.” But viewing research into human diversity only as “race science” and then calling it a “pseudo science” – a highly questionable term – obscures the high reputation that these approaches enjoyed at the time. To be sure, human biodiversity studies were often, but not only, inquiries into “race.” “Populations” of very different size and geographical extent served as objects of inquiry—for example, a mountain village in Switzerland, or the population of an entire state such as Iceland. Thus, the production of knowledge about human biodiversity is even more widespread, precarious, and potentially applicable than a sole focus on “race science” permits us to

comprehend. Moreover, studies in human biodiversity did not come to an end after 1945; quite the contrary, with the molecular genetic era they have gained even more weight.

Approaching human biodiversity from the viewpoint of historical epistemology, we wish to open up perspectives in a field of knowledge that has been neglected so far. Historians have, for good reasons, concentrated on the history of racism (within science), whereas historians of science have focused mainly on internal aspects. Both standpoints need to be brought together, for two reasons.

First, the study of human biodiversity was not a mere obsession of scientists in ivory towers. Even if biologists have long since successfully claimed that the mystery of human biodiversity could be unraveled only by science, studies of human biodiversity are always deeply entangled in social constellations, particularly because they become implicated in sometimes dramatic social and political conflicts, and thus in power relations, often even as part of their research design. This holds true for colonial medicine as well as for military screenings in Western nations.

Second, social, cultural, and political beliefs and ideas inform studies on human biodiversity not just because the scientists are driven by respective motives, but also epistemically. Since the late 19th century, knowledge about human biodiversity has been closely linked to knowledge about heredity, reproduction, and evolution—that is, biological historicity. Throughout the 20th century, biologists attempted to explain how human diversity emerged over thousands of years by telling stories, bio-histories, or evolutionary tales of struggle, competition, selection, marriage and offspring, “inbreeding,” and “race-crossing.” Human

history was thus re-interpreted as a biological process, and society was understood as a laboratory for breeding experiments: the experiment had already happened, and biologists only could learn about its results from the present status quo. Such biological understandings of society and history, prevalent in biomedical fields even today, require further inquiry from a historical standpoint.

This project contributes to a cultural history of biological knowledge. It investigates the production and dissemination of knowledge about human biodiversity in their scientific and social dimensions and considers their linkages to knowledge about heredity, reproduction, and evolution. The project employs various approaches of the history of science to shed light on the discourses, practices, and representations of human biodiversity. Because the period under investigation includes today's molecular genetic studies, laboratory studies might complete the methodological toolbox. Special interest is paid to the contact zones between practices of data production, interpretations of human biodiversity, and social and political practices.