

Title of the workshop:

Linking genetic and linguistic diversities

Convenors:

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Description of the workshop topic and research questions

The sequencing of genomes from present-day human groups on a massive scale (e.g. the 1000-Genomes Project) suggests that the genetic foundations of language (that is, the set of genes that regulate the aspects of brain development, wiring, and function important for language acquisition and processing and the organs necessary for its production and perception) may not be uniform across the species and that variants of many of these genes may influence language knowledge and use by the neurotypical population. This is in line with recent research suggesting that cognitive differences among human populations are not only due to cultural and sociological forces, but also to genetic changes in response to different environments and ecological niches. Overall, this opens the possibility that aspects of language known to vary cross-linguistically, like morphosyntax or phonology, may be a response to the environment in which human groups live possibly mediated by some kind of genetic changes.

At the same time, this kind of genetic variation (but also the variation resulting from the sequencing of the genomes of early anatomically-modern humans) allows us to infer aspects of human groups dynamics (population size, social structure, mating behaviors, etc.) that are known to influence the structure of languages and language complexity. Accordingly, the study of genetic variation may also help refine our view of language change in the past and the ecology of present-day languages.

Specific research questions to be addressed include (but are not limited to):

- Patterns of global linguistic diversity compared to genetic diversity
- Ecological factors accounting for language diversity (with a potential impact on genetic diversity and vice versa)
- Genetic analysis of socio-cultural factors accounting for language diversity
- Gene-culture co-evolution and language diversity
- Using genetic diversity for making inferences about language change in the past
- The adaptive value of linguistic diversity