

Languages, Genes and the Bantu Problem: Western Zambia as a Case Study for an Interdisciplinary Approach to the Population History of Southern Central Africa

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The poster we wish to prepare for the Conference on Languages and Genes at the University of California Santa Barbara (2006 September 08-10) will present the objectives, methods and expected results of an upcoming joint project of the Service of Linguistics of the Royal Museum of Central Africa (Tervuren, Belgium) and the Department of Evolutionary Genetics of the Max Planck Institute for Evolutionary Anthropology (Leipzig, Germany).

This project aims to develop **an interdisciplinary linguistic and genetic approach to the history of population dynamics in the Western province of Zambia, and thus to contribute to a better understanding of the history of southern Central Africa and the Bantu problem.** The Western Province presents a complex sociolinguistic situation resulting from the overlapping of linguistic strata and the combination of different types of linguistic change and replacement. It constitutes therefore **an ideal small-scale and regional test ground** to examine what might be **the consequences of language change in terms of changing gene frequencies**, and in this way to improve and **refine the very schematic scenarios about a distant past that currently prevail in the linguistic-genetic debate.** The close collaboration between geneticists and linguists will allow to enhance interdisciplinary method by integrating genetics and historical linguistics for the reconstruction of population history at local and regional level, and to gain a better understanding of the interplay between language history and biological history, especially regarding the divergences between the results of both approaches.

The research will focus on **three distinct types of historical linguistic evolution and their genetic impact:**

a) **the superposition of a foreign but African vehicular language, i.e. *Lozi*, to the local pre-existing Bantu languages without complete replacement.** The language was introduced into this region in the first half of the 19th century by a small band of South-African invaders known as Kololo, who conquered the pre-existing Luyi kingdom. Although their reign was short, i.e. only two generations, their language became predominant, and we would like to know to what extent the Kololo contributed genetically to current Lozi-speaking groups.

b) **the contact and interference between languages of two primary Bantu branches** having known a long divergent evolution, i.e. **East Bantu and West Bantu.** The generally recognized picture is one of three main linguistic groups of long standing: 1) *Luyana* in the centre and (south-)west, 2) *Tonga* in the south, 3) *Nkoya* in the (north-)east. While the latter two groups belong to the westernmost East Bantu offshoots (but have undergone West Bantu influence which may stretch just as far as Shona in neighbouring Zimbabwe), the status of *Luyana* is ambiguous. While, according to the latest lexicostatistical studies, *Luyi* (Luyana group) seems to be closer to *Nkoya* and *Tonga* than to West Bantu, it is doubtful whether the *Mashi* languages, generally seen as part of *Luyana*, should be associated with *Luyi* and its closest neighbours. The little available data suggest that they are more related to the West Bantu languages of Angola and Namibia, some of which have actually been introduced by immigrants into the Western Province during the 19th and 20th century. The genetic studies will help elucidate the language contact situation by revealing the extent of genetic contact between Western Bantu-speaking and Eastern Bantu-speaking groups;

c) **the disappearance of Khoisan languages in favour of Bantu languages** and the related assimilation of Khoisan-speakers into more recently arrived Bantu speech communities. In

addition to the West Bantu/East Bantu border, the Western Province coincides with a second major linguistic frontier, i.e. between Khoisan and Bantu. Until recently Khoisan languages spoken by small nomadic groups were reported on the southern fringes of the Western Province, but it is doubtful whether this is still the case today. It is widely believed, however, that the occurrence of Khoisan languages in Zambia was once much more northerly. The presence of one or more clicks in Bantu languages, such as *Fwe* belonging to the *Tonga* group, indicate historical contact with, or even the assimilation of Khoisan speakers into Bantu speech communities through intermarriage and language shift. The genetic studies will reveal if current Bantu-speaking groups have any genetic markers characteristic of Khoisan-speaking groups, which would then be an indicator of past contact.