What does genetics have to do with language?
– with a special reference to tone –

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Abstract. There are multiple levels at which the complex interactions between language and genes are structured, from the species-specific genetic bases of our capacity for language, to the genetic influences on inter-individual differences and the molecular mechanisms subtending them. In this talk I will first briefly overview what we currently know about these influences and mechanisms, highlighting their bewildering complexity and indirect nature. In the second part of my talk I will focus on the role genes might have on shaping language through genetically biased cultural evolution. I will discuss village sign languages, such as *Kata Kolok* and *ABSL*, as powerful illustrations of how, on one hand, genetics can drastically affect language while, on the other, language feeds back onto genes. After this striking example, I will present the current state of the art on what concerns our general understanding of such genetic biasing, including computer models, experimental approaches using artificial language learning and the cultural transmission of birdsong. I will then introduce the case of two brain growth and development-related genes, *ASPM* and *Microcephalin*, and their proposed influence on the distribution of linguistic tone across the world, including recent experimental evidence and a Bayesian phylogenetic investigation into the stability of tone that seem to support this suggestion. I will end by sketching some future directions of study concerning genetic biasing in general and the genetic biasing of tone in particular, such as the contribution of inter-individual genetic differences to the learning of artificial tone languages, and the effects the morphology and physiology of the vocal tract might have on phonological systems around the world.