

## The mechanisms of gender assignment: an evolutionary study of the Indo-European three-gender system

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Gender assignment in languages with a gender system is a complex issue that is influenced by many different factors. In brief, factors influencing gender assignment can be classified as either semantic, morphological, or phonological (Corbett, 1991, 2013; Corbett & Fraser, 2000). Many Indo-European languages have a three-gender system, distinguishing masculine, feminine, and neuter gender. The system is present in several Indo-European branches, but it has been simplified in other branches or languages, either to a system with a masculine – feminine distinction, or to a system with a masculine/feminine (uter) – neuter distinction. Most historical linguists agree that the three-gender system is an innovation, which is not supposed to be reconstructed to Proto-Indo-European (Luraghi, 2011; Matasović, 2004).

The current presentation will consider the evolution of gender in Indo-European from two perspectives. First, we will consider the reconstruction of the gender systems of ancestral nodes in Indo-European, based on typological data for 117 living and extinct Indo-European languages (extracted from the DiACL database) and applying a Bayesian reconstruction model where we infer change rates against a phylogenetic reference tree (Carling & Cathcart, Forthcoming; Cathcart, Carling, Larsson, Johansson, & Round, 2018; Greenhill et al., 2017). We will scrutinize the proposed two-gender model of Proto-Indo-European, which has low support in the Bayesian reconstruction.

Second, we will consider how semantic property and cognacy influences the evolution of gender assignment. For this purpose, we will use a lexical dataset of 104 concepts and 14,000 lexemes (from contemporary and historical languages) within the domains of farming/pastoralism, hunting/war, and technology/industry, which have an age stretching at least back to the Indo-European proto-language. The lexemes have been coded for cognacy, semantic evolution and change (defined as metaphor, metonymy, generalization, specialization, holonymy, and meronymy), morphology (mono/polymorphemic), as well as grammatical gender. The concepts have also been coded for properties assumed to underlie gender assignment, such as animate/inanimate, higher/lower (of animals), collective/individual, male/female, concrete/abstract, or various forms (oblong/blunt etc).

Against a phylogenetic reference tree derived from basic vocabulary, and accounting for the changes in gender systems of attested languages and ancestral nodes, we will test the gender predictors of our concepts. We will test the predictors both individually and in semantic clusters, defined by colexification and cognacy patterns; focusing on four basic research questions, which are defined as follows:

- Which are the strongest predictors for the gender assignment of concepts in our corpus?
- When a new word enters the lexicon, which are the strongest predictors for the assignment of gender?
- When a language changes its gender system, which are the strongest predictors for the evolution of the gender of concepts?
- When a word changes its gender (without the language changing its gender system), which are the strongest predictors for the directionality of the change?

The research will hopefully make a significant contribution to our understanding of the mechanisms at work in gender assignment and how gender systems evolve over time.

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