The evolution of gender-differentiated kinship terms

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Recent studies testing hypotheses about cultural variables, like marriage organization, residence and descent patterns, shaping kinship terminology demonstrate that kinship terms have evolved independently from these factors (Passmore & Jordan 2020). So far, alternative explanations of the variation in kinship system have received less attention (but see Kemp et al. 2018).

One alternative explanation involves general linguistic principles. Greenberg (1980) suggests that marked kinship terms cannot have gender distinctions unless they are also present in unmarked kinship terms. Unmarked terms are those that refer to 1) kin closer to the ego (children vs grandparents) and 2) older kin (grandparents vs grandchildren). This leads to the implicational hierarchy: siblings = children > grandparents > grandchildren, meaning that gender distinctions in grandchildren arise after other terms already marking gender. Siblings and children are equally unmarked since the closeness to ego (children) and seniority (siblings) criteria are in conflict. Greenberg (1990: 322) also points out the potential influence of sex-based gender systems on gender-differentiated kinship terms. For instance, the *cousin/cousine* distinction in French might have been facilitated by the presence of a gender system categorizing all nouns into masculine and feminine, which is not the case in English with its gender-neutral *cousin* term.

We test Greenberg's hierarchy of gender-differentiated kinship terms and explore the potential effect of sex-based gender systems on a sample of 303

languages. We map the kinship term data from Kinbank (Passmore et al. 2023) and the sex-based gender data from Grambank (Skirgård et al. 2023) onto the global EDGE tree Bouckaert et al. (2022). We fit Bayesian mixed models using the *brms* package (Bürkner 2017) to establish whether the results support or deviate from Greenberg's predictions.

We find that sex-based gender systems in language are positively correlated only with gender distinctions in grandchildren terms. Greenberg's hierarchy is partially supported: distinctions in grandparents are positively correlated with distinctions in children, but not in siblings, and distinctions in grandchildren are positively correlated with distinctions in grandparents, children, and siblings. This suggests that (1) general linguistic principles proposed by Greenberg can partially account for the variation in the kinship lexicon and (2) gender distinctions in kinship terms (with the exception of children) evolve independently from gender systems.

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