

To have or not to have a nominal classification system: trade-offs between speaker and listener needs

Nominal classification covers a range of grammatical phenomena, e.g., gender, noun class, and classifier systems, that divide the nouns of a language into more or less transparent categories at least partly based on semantic features such as sex, animacy or shape (Aikhenvald 2000; Seifart 2010). A nominal classification system of some kind is found in 53.4% of the world's languages, dispersed across all inhabited continents and numerous phylogenetic groups (Allasonnière-Tang et al. 2021). It has sometimes been argued that nominal classification systems include redundant information, pose a high cognitive load and are difficult to acquire fully, in particular for L2 learners (Aikhenvald 2025; Grüter et al. 2012; Kilarski 2007). This raises the question: *why do so many languages have nominal classification systems?*

Although these systems impose costs on the speaker in terms of cognitive load, learnability and production effort, they have been shown to offer processing advantages for the listener. Listeners can use gender or classifier cues to restrict the set of possible upcoming nouns, thereby reducing lexical uncertainty during comprehension. For example, when hearing the feminine article *la* in French or the Baniwa classifier *-hiwi* (used for pointed referents), listeners can narrow down expectations to a subset of nouns compatible with those features, facilitating predictive processing (Dahan et al. 2000; Cronhamn et al. under review). Behavioural and electrophysiological studies from a number of gender and classifier languages indicate that listeners do use gender and classifiers predictively (Chou et al. 2014; Cronhamn et al. under review; Deng et al. 2023; Dye et al. 2017; Frankowsky et al. 2022; Klein et al. 2012; Lau and Grüter 2015; Lew-Williams and Fernald 2007; Lobben et al. 2023; Mitsugi 2020). This raises a second question: *if nominal classification systems are so useful, why do almost half of the world's languages lack them entirely?*

In this talk, we discuss this typological split through the lens of language processing. We propose that the typological variation in nominal classification is rooted in trade-offs between speaker and listener needs. Classification systems serve listener economy by allowing anticipation of upcoming elements. Languages without such systems favor speaker economy, avoiding the cognitive load of maintaining and producing class distinctions. This variation may reflect sociolinguistic pressures in that some languages may have developed in contexts that prioritize listener-oriented clarity whereas others evolved to favor speaker-oriented efficiency.

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