VOCAL ICONICITY IN NOMINAL CLASSIFICATION

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While vocal iconicity in lexemes is increasingly well-studied (Blasi et al., 2016; Erben Johansson et al., 2020; Joo, 2020), its presence in more grammaticalized meaningful linguistic units are yet rather poorly understood. Aside from phonesthemes, vocal iconicity has been investigated in diminutives and augmentatives, but the results have been inconclusive (Körtvélyessy, 2011). Across languages, nominal classification involves fundamental semantic categories, such as sex (feminine/masculine), humanness (human/non-human), animacy (animate/inanimate), physical properties (size, shape) and functional properties (container, tool) (Aikhenvald, 2000). Thus, many of the categories found to be iconic in previous studies are also grammatically encoded in nominal classification systems.

The present study investigates the presence of vocal iconicity in nominal classification systems by using a genetically diverse dataset of languages, which was distributed evenly across the two main types of nominal classification systems (non-agreeing, such as more flexible *classifier* systems, and agreeing, such as more rigid *gender* or *noun class* systems). By collecting the nominal classification devices (NCDs) in 210 non-agreeing languages (126 language families) and 151 agreeing languages (123 language families), transcribing the NCDs using a coherent and comparable phonetic system, grouping them according to comparable semantic categories and analyzing them through Bayesian generalized linear models, we were able to assess whether certain types of sounds were overrepresented in certain class meanings.

The results revealed that the strongest overrepresentations of sounds were found in NCDs that pertained to shape and size (low, front, unrounded vowels in FLAT, high, back, rounded vowels in ROUND and high, front, unrounded vowels in SMALL) which aligned with previous cross-linguistic findings. However, the iconic effects were restricted to non-agreeing systems, and the non-agreeing systems included in the dataset contained more than three times as many nominal classes and almost twice as many segments as the agreeing systems.

These differences were attributed to more substantial phonetic erosion and semantic bleaching of agreeing NCDs through grammaticalization as nominal classification systems become increasingly formalized. This means that if a non-agreeing system changes into a more agreement-based system, it loses semantic transparency and gains formal predictability which dismantles one of the two key components of vocal iconicity and causes sound-meaning mappings to break down. While it is possible that these sound overrepresentations in non-agreeing systems exist solely because of inherited iconic effects present in the lexemes that the NCDs are derived from, iconicity has been shown to aid language acquisition (Imai & Kita, 2014; Massaro & Perlman, 2017; Nielsen & Dingemanse, 2021) which suggests that vocal iconicity could also be functional grammatical constructions. This would mean that the grammatical section of human language is affected by vocal iconicity and that the retrieval of noun semantics could be accelerated if primed with iconically congruent NCDs.

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