

Representing Typological Prevalence in Graph-Based Semantic Maps

Qichao Wu

Colorado College, Colorado Springs, Colorado, United States

Beth Malmskog

Colorado College, Colorado Springs, Colorado, United States

Kevin Holmes

Colorado College, Colorado Springs, Colorado, United States

Abstract

A graph-based semantic map is a visual representation of presumptively universal conceptual structure underlying semantic variation across languages. In such maps, vertices (nodes) represent semantic functions (e.g., the spatial relation of support) and edges connect conceptually similar functions. Using an algorithm that selects edges based on the frequency with which pairs of semantic functions co-occur across words (or other linguistic forms), Regier and colleagues inferred parsimonious but not maximally informative semantic maps from cross-language data on indefinite pronouns and spatial relations. Here, using the same data, we present several alternative map inference methods that prioritize informativeness by accounting for typological prevalence—the frequency with which pairs of semantic functions co-occur across languages—via the selection and/or weighting of edges. We suggest that these methods may provide a more complete picture of the universal conceptual bases of cross-language semantic variation.