

Semantics of classifier systems

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Motivation

Diverse types of classifiers are a prototypical example of linguistic diversity and the capacity of the human mind for categorization.

Gap in research

Descriptions of classifiers typically rely on small-scale surveys or case studies of classifier languages. In WALS [1] and WACL [2], we only find numeral classifiers.

Proposed solution

Constructing a database of classifier types in the world's languages and determining the distribution of semantic values in classifier languages.

Examples of classifier types

Numeral classifier (Mandarin)	Possessive classifier (White Hmong)
yi4 zhi1 gou3 one CLF.ANIM dog 'one dog' (anim = animal)	nws rab riamntaj he CLF.INST sword 'his sword' [3] (inst = instrument)
Noun classifier (Zhuang)	Deictic classifier (Kadiwéu)
tu2 mou1 kwn1 bou3 im5 CLF.ANIM pig eat not enough 'The pig is not full.' [4]	i-n:i-wa-tale gonele:gi-wa-di MASC-CLF.NXT-PL-two man-N-PL 'two men' [5] (nxt = non-extended)

Materials

The DReaM corpus [6]: OCREd grammars and grammar sketches written in English. We show the results from a phylogenetically and geographically balanced sample of 164 languages with 564 sources, where the term 'classifier' is found.

Research questions

Underlying principles of categorization in classifier systems

- What are classifiers and what types of classifier systems are distinguished?
- What semantic values are found and how are they structured?

Universal vs. language-specific distribution of semantic values and the interaction between semantics and types of classifier systems

- What is the distribution of semantic values and types of classifiers?
- Is there a preference among classifier types for certain semantic values?

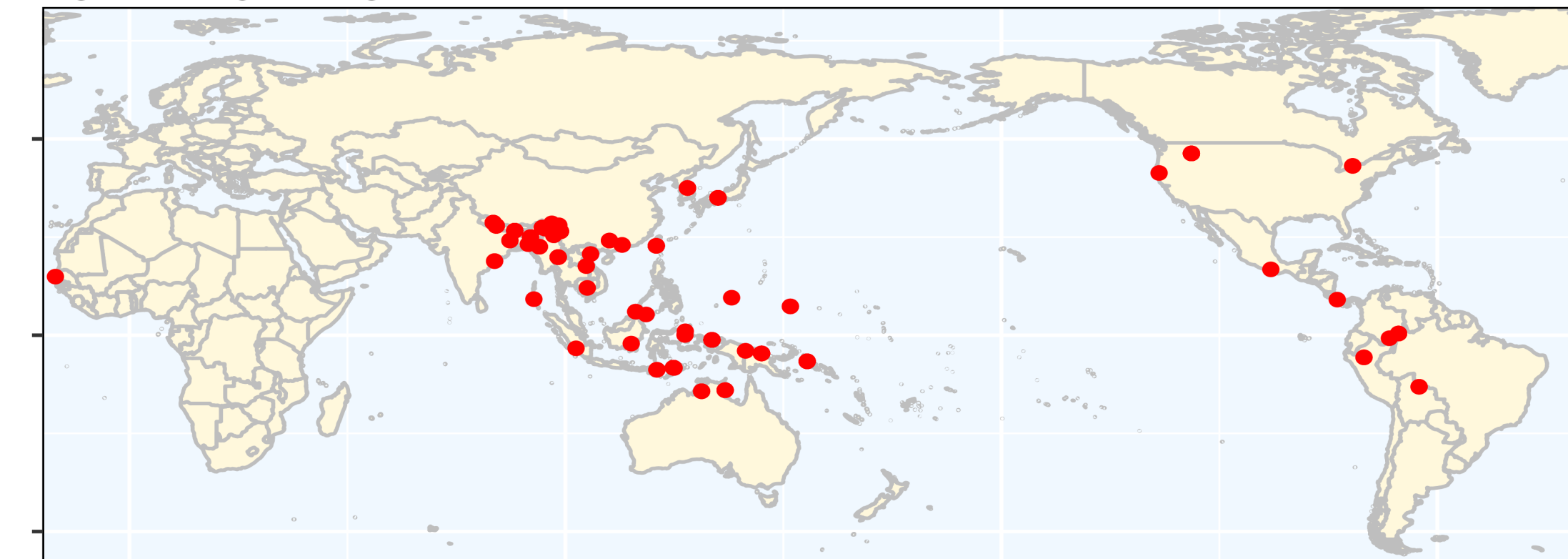
Potential pitfalls

The diversity of terms used for the same semantic feature, e.g., 'long', '1D', 'elongated', 'sharp'. Manual checking with annotator agreement will be conducted.

Preliminary output

For all the sources for each language, we manually checked which classifiers were mentioned and what were their semantics. The preliminary results show that corpora combined with NLP methods and manual checking is highly helpful for identifying classifier semantics in the world's languages.

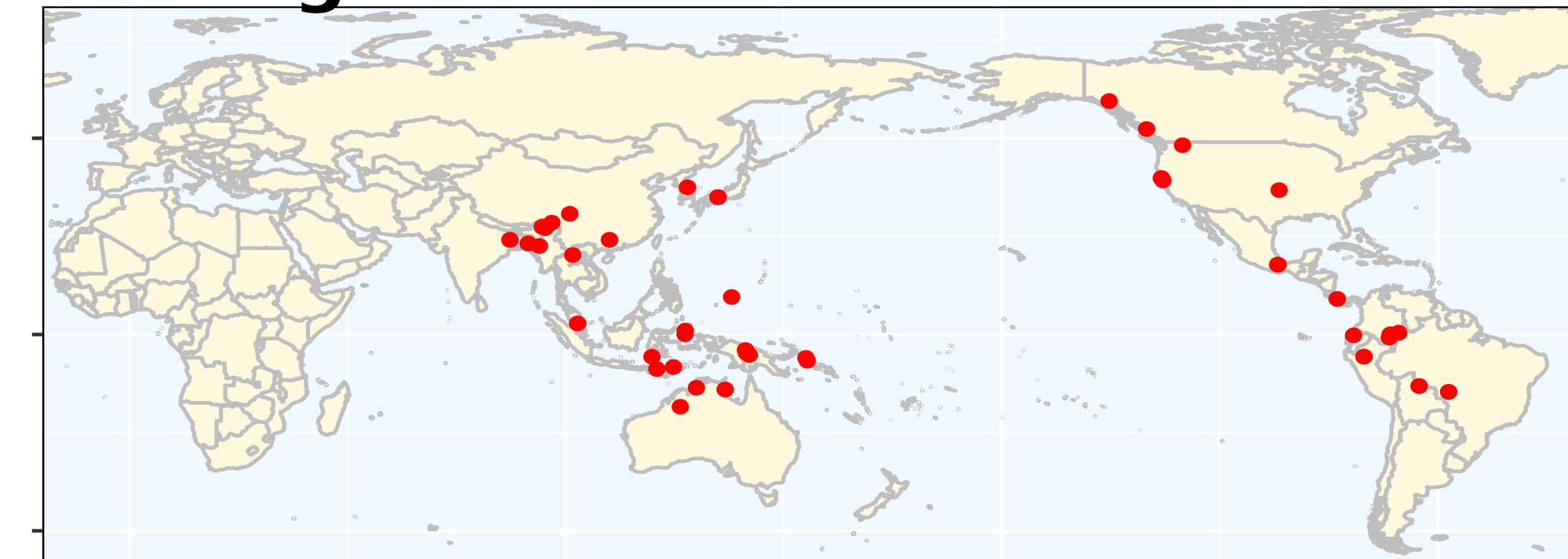
1a. human



1b. animal



1c. long



1d. round



Figure 1. In the preliminary study, among 986 languages, there are 651 (66.02%) classifier languages (red = classifier languages, black = languages without classifiers).

Acknowledgements

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