

## Understanding optional plural marking: a cross-linguistic study on speech production

ABSTRACT CATEGORY: oral/poster

Plural marking is optional in a large number of languages (Corbett 2000); the research question of this study is which factors determine this optionality. As a starting point, we assume that there are at least two sources of typological difference that interact with number marking: (a) languages differ with respect to the possible conceptualizations of the nominal lexicon, in particular with respect to the possibility to use (particular subsets of) nouns in order to refer to atomic entities (Lucy 1992, Chierchia 1998); (b) languages differ with respect to the locus of encoding plurality of the nominal referents, either within the noun phrase and/or through cross-reference markers on the verb (Corbett 2000).

LANGUAGES: We compare four languages with optional plural marking that illustrate these dimensions of diversity: Urum (Turk, Georgia), Fongbe (Niger-Congo, Benin), Cabécar (Chibchan, Costa Rica), Yucatec Maya (Mayan, Mexico). Obligatory numeral classifiers suggest that the noun denotation cannot be type-shifted to a denotation referring to atomic entities: this is the case for Yucatec Maya and Cabécar (and not for Urum and Fongbe). Plural cross-reference markers on the verb are available in Urum for subjects and in Yucatec Maya for subjects and objects (and not in Urum and Fongbe).

METHOD: After an outline of the crucial facts concerning the properties of nouns and of number marking in these languages (elicited and corpus data), we present the results of a cross-linguistic experimental study (18 native speakers per language; speech production based on a translation task; 24 tokens per speaker; a reliability test with corpus data has been conducted for Urum; Yucatec data is currently collected). This study examines the effects and interaction of two crucial factors: animacy (human vs. non-human) and syntactic function (subject, object, adjunct).

RESULTS: All languages display an animacy effect, such that plural is significantly ( $p < .05$ ; GLMM) more frequent with human nouns than with non-human nouns. The comparison between syntactic functions shows (a) that there is no evidence for a compensation effect of plural marking on the verb and (b) that there is a general pattern subject > object > adjunct (plural frequencies) – however not reaching the significance level in most comparisons. Crucially, we observe a significant difference between languages, such that plural marking in Cabécar appears generally less frequently than in the other languages.

CONCLUSIONS: Cross-linguistically consistent tendencies can be presumably traced back to cognitive asymmetries, which apply to the asymmetries between several classes of entity (human vs. non-human) or between different levels of salience of syntactic functions. The fact that the examined languages differ in the overall frequency of plural marking is challenging: the grammatical facts lead to the hypothesis that if the noun (non-specified for number) does not denote atomic entities, plural reference is more likely to be established without plural marking.

### REFERENCES

- Chierchia, G. 1998. Reference to kinds across languages. *Natural Language Semantics* 6:339-405.  
Corbett, G.G. 2000. *Number*. Cambridge: CUP.  
Lucy, J. 1992. *Grammatical Categories and cognition*. Cambridge: CUP.