WHAT LINGUISTICS TEXTBOOKS TEACH ABOUT LANGUAGE EVOLUTION

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1. Introduction

In 2016, Wacewicz et al. (2016) conducted a preliminary study of topics related to language evolution research as presented in 14 introductory-level linguistic textbooks, finding that in contrast to areas such as language acquisition, language change or language and the brain, language evolution received insufficient attention, often based on out-dated and inadequate conceptual frameworks. Here, we further investigate this issue with a first-of-its-kind, large computer-assisted qualitative study, in which we inspected 18 textbooks for all content related to the evolutionary emergence of language and its uniqueness in nature, in order to evaluate its thematic scope, selection of topics, theories covered, researchers cited, structural soundness, currency, and factual accuracy.

2. Materials and methods

Our dataset consisted of the most recent editions of 18 introductory textbooks to linguistics, selected based on the popularity measures *OS Appearances* and *OS Score* on the Open Syllabus Project (opensyllabus.org). We used the qualitative data analysis software nVivo 1.3 to mark and code any content related to the origins of language and its status among animal communication systems, appearing anywhere in the content of each book, including boxes, footnotes, captions, or exercises (but not indexes or references). We followed a 5-step coding procedure consisting of training (two language evolution experts instructed two expert coders), individual coding by the expert coders, consensus discussion of all coded passages by the coders, review by two language evolution experts, and consensus discussion by all four experts. This resulted in

a hierarchy of 462 codes in the main thematic groups: Animal Communication (AC), Language Evolution (LE), and Researchers (R).
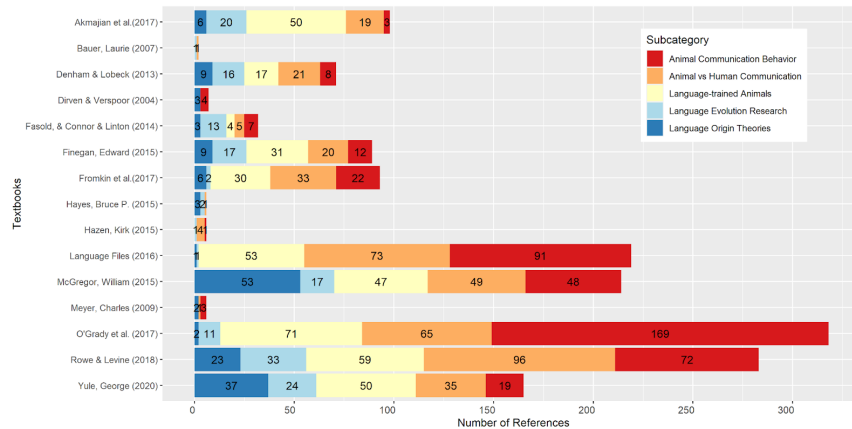

Fig. 1. Numbers of references to the main thematic categories of interest in 15 introductions to linguistics. The remaining three textbooks did not contain any references to either Animal Communication or Language Evolution.

3. Results and discussion

Overall, we found that the content of interest lacks a canonical representation across the textbooks (e.g. of the 189 researchers whose work was cited, only 17 were cited in 5 or more textbooks). The coverage of animal communication was relatively broad, with some recurring classic examples, such as vervet monkeys or honeybees. As its main problem, we see overreliance on the outdated framework of "design features" (11 textbooks, 183 references), to the exclusion of other important frameworks such as signaling theory (0 references) or phenomena such as turn-taking (3 books, 2 references). In contrast, the coverage of topics related to language origins and evolution was much less extensive and systematic, and suffered from an overrepresentation of content whose value is almost exclusively historical (i.e. creation myths, "bow-wow" theories), at the expense of current research in this fast-paced field; resulting in almost complete exclusion of topics such as cultural evolution (1 book, 3 references) or tool use (3 books, 7 references). We found the textbooks to be mostly factually correct, with a total of 60 problematic passages of different dimensions found in all textbooks (38 for AC and 22 for LE). We conclude with a detailed discussion of the results and several recommendations for future editions of the textbooks, most importantly changing the proportion of historical content to recent results, and including signalling theory and cultural evolution.

Acknowledgements

References

Wacewicz S., Żywiczyński P. and Jasiński A. (2016). "Language Evolution And Language Origins In Teaching Linguistics At The University Level". In S.G. Roberts, C. Cuskley, L. McCrohon, L. Barceló-Coblijn, O. Fehér & T. Verhoef (eds.) *The Evolution of Language: Proceedings of the 11th International Conference (EVOLANG11)*.