

What do we understand from experiments in language evolution: inferences from multiple-choice vs. open-ended semantic space paradigms

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Abstract

In our poster, we challenge the multiple-choice paradigm used in many communication experiments and the validity of conclusions that can be drawn from it. We concentrate on two well-constructed experiments that have made claims that humans can understand improvised or interspecies forms of communication (e.g., Ćwiek et al., 2021; Graham & Hobaiter, 2023). We hypothesized that participants would perform worse when asked to provide free-text answers, compared to the original design of multiple choice. Our results indicate that participants performed worse compared to the original studies. The post hoc analysis showed that, in many cases, relevant semantic domains were correctly identified by the participants, but hardly any responses were fully congruent with the target concept. We conclude by discussing which types of questions are better addressed with the multiple-choice vs. open-text paradigm, and how the results of each of them can be mapped onto a larger picture of language evolution.

References Ćwiek, Aleksandra, Susanne Fuchs, Christoph Draxler, Eva Liina Asu, Dan Dediu, Katri Hiovain, Shigeto Kawahara, et al. 2021. Novel vocalizations are understood across cultures. *Scientific Reports* 11(1). 10108. <https://doi.org/10.1038/s41598-021-89445-4>.

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