

Beyond English and Suffixation: Why Morphological Processing and Learning Research Needs More Linguistic and Morphological Diversity

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The majority of words across the world's languages consist of smaller meaningful units, or morphemes, which combine and recombine to create new words (e.g., *mis-trust-ful-ness*). Previous research shows that such words are processed in terms of these smaller units (see [1] for a review). Psycholinguistics has made important advances in understanding how morphological information are learned and processed. Based on statistical learning accounts, morphological knowledge is learned by tracking the mapping between a consistent form and meaning (e.g., *-ed* almost always indicate past tense) [2–4]. Readers develop representation of these morphemes by encountering these affixes with many different exemplars [5]. Although we have this general theory of how morphemes are learned and processed, the existing insights have not been tested in a wide range of languages and morphological types.

In this study, we quantify linguistic and morphological diversity in the morphological processing and learning literature. We coded research articles published over the last 50 years for four variables: year, language(s), morphological type(s), and participant type (skilled readers vs. developing readers). We excluded papers that used auditory paradigms and offline morphological awareness tasks. Non-experimental papers (e.g., editorials) were also excluded. A total of 657 papers were retained for further analyses.

Our survey revealed a strong linguistic and morphological bias across studies of both skilled and developing readers. Among studies with skilled readers, our survey revealed that approximately 85% focus on English and closely related Indo-European languages (e.g., French, Spanish, German; see Figure 1A). A similarly strong Indo-European bias was observed in studies with developing readers, with about 90% of studies examining Indo-European languages (see Figure 1B), despite the much smaller number of publications in this population. In addition, approximately 62% of studies focused on suffixation (see Figure 1C), the most frequent morphological process in English.

We argue that this narrow scope limits theoretical progress. Many languages form complex words through reduplication, infixation, circumfixation, or nonlinear patterns that differ structurally from English suffixation. This paper demonstrates that our understanding of morphological processing and learning will remain narrow and incomplete until such processes are systematically examined. Expanding linguistic diversity is therefore necessary for building a more comprehensive account of morphological processing and learning.

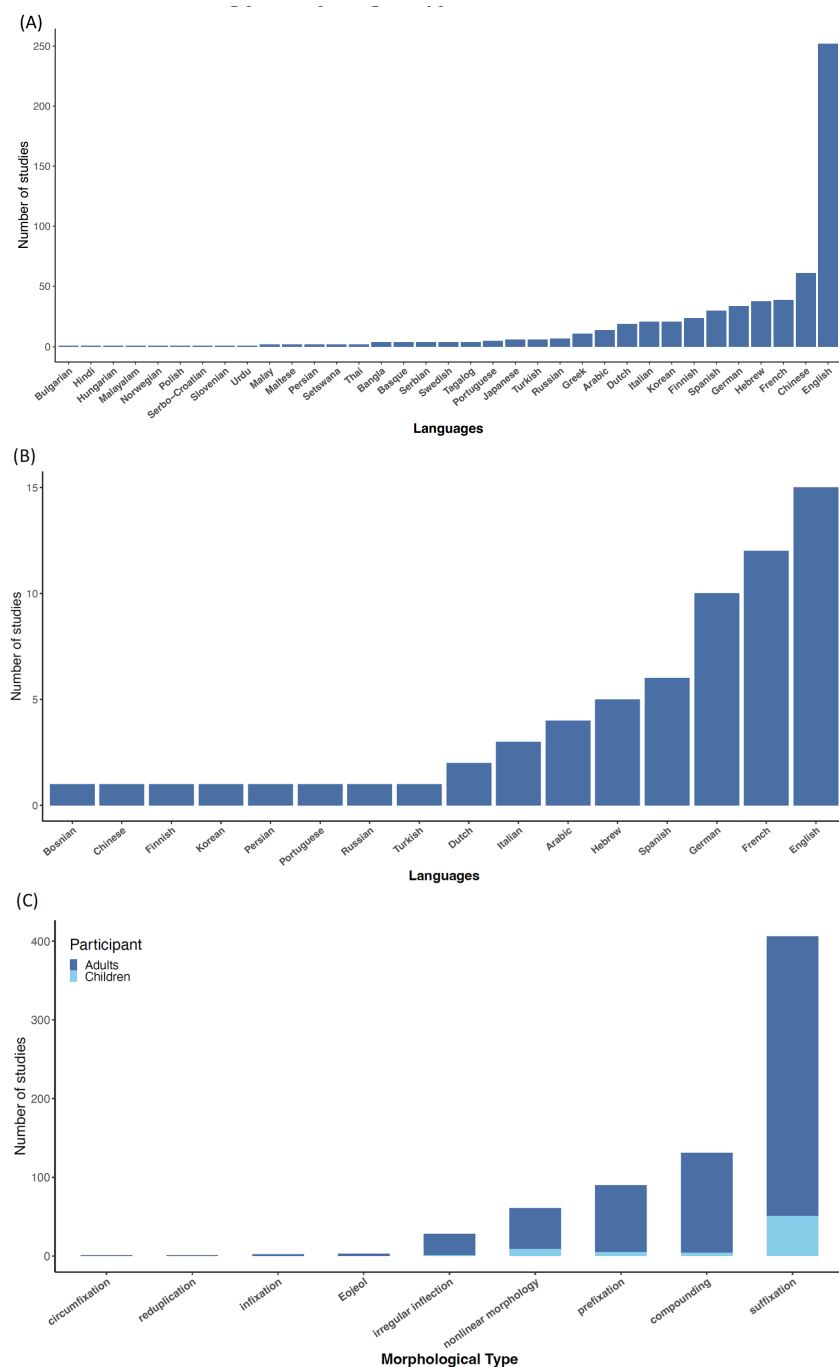


Figure 1: Bar plots showing linguistic diversity and morphological typology distribution in reading acquisition and skilled reading. (A) Number of studies on skilled reading in different languages. (B) Number of studies on reading acquisition in different languages. (C) Number of studies in reading acquisition and skilled reading per morphological type.

References

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