

# The relationship between morphosyntactic productivity and print exposure in native Spanish speakers

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A series of studies have been challenging the concept of universal grammar by demonstrating the presence of individual differences in first language (L1) ultimate attainment. Evidence points out that individual differences are partly related to variability in terms of educational level (Dąbrowska, Pascual & Gómez-Estern, 2022). As formal education requires constant exposure to print texts containing great lexical and syntactic variability (Biber, 1986), higher education levels often result in close-to-ceiling performances in native language tasks. By contrast, much more variation is observed for L1 speakers with lower educational levels. An extreme example of how education modulates individual differences in L1 acquisition is the comparison between literate and illiterate populations. In that regard, recent studies have shown that native illiterate and semi-illiterate speakers of Spanish have more difficulties comprehending complex syntactic structures and formulating verbal morphology than a literate control group (Dąbrowska, Pascual & Gómez-Estern, 2022; Authors, 2023). Possible explanations for these differences are that exposure to written text is beneficial due to the variety of structures presented on it and/or that creating written representations helps bootstrap the acquisition of morphosyntactic patterns (Dąbrowska, 2020). Building on this, in the present study we asked whether the morphosyntactic productivity of literate native speakers of Spanish is related to their exposure to print.

A total of 100 native Spanish speakers of ages between 20 and 65 completed three tasks: i) a vocabulary size test, the Lextale-Esp (Izura, Cuetos & Brysbaert, 2014), ii) a Spanish Author Recognition Test (SART) to measure participants' print exposure and iii) a nonce verb inflection task as a measure of morphological productivity. In this last task, participants were given a nonce verb (e.g., *sofar*) followed by a definition and an example of its use and conjugation, and they were asked to provide a verbal form that would match the specific subject that was provided after the example.

The results of preliminary analyses showed that our adult participants outperformed the older control group in the previous study and that they were slightly less accurate with the paradigm's less frequent forms. Furthermore, a significant correlation between the vocabulary and print exposure measures was found, as well as a small yet significant correlation between print exposure and morphosyntactic productivity in the nonce verb inflection task. We take this to indicate that print exposure may indeed modulate L1 morphosyntactic proficiency but in a limited manner, suggesting that there may be some sort of threshold after which variations in print exposure have a much-reduced impact on L1 grammatical attainment.

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