Exposure length to an artificial language significantly impacts adult mono- and bilinguals' segmentation strategies

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Endress and Bonatti (2007) show that exposure length to an artificial language (AL) impacts the nature of the representations extracted by the listener and argue that short exposures favor the projection of generalizations. We examine whether familiarization length impacts adults' parsing of an AL previously used to test adults' and infants' word order preferences (see de la Cruz-Pavía, Marino & Gervain 2021, for a review). The AL comprised strictly alternating frequent and infrequent elements and was rendered structurally ambiguous, allowing two possible segmentations: "phrases" could begin or end with a frequent element (frequent-initial vs. frequent final phrases). These two segmentations mirror the two possible distributions of functors and content words found in natural languages. We first exposed L1Basque-L2Spanish bilinguals—languages with opposite word orders—and Spanish monolinguals to the AL, for either 17 minutes or 2 minutes (4 groups, n=24 each), then tested them on their word order preferences. Results revealed that manipulating the amount of exposure to the AL significantly impacted the two populations' word order preference, even reversing it in the case of Spanish monolinguals. Analysis of the participants' linguistic background did not reveal any significant difference between groups, which suggests that it was indeed the amount of exposure that impacted their segmentation strategies. The cause of the unexpected frequent-final segmentation obtained in Spanish monolinguals remains to be determined. However, we speculate that it might originate in the heavily suffixing morphology characteristic of Spanish.

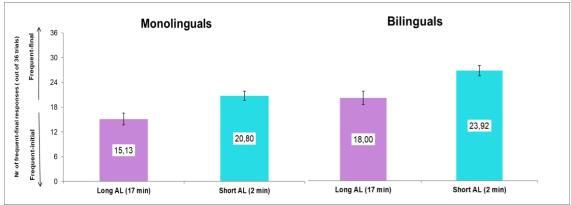


Figure 1. Mean number of frequent-final responses per group out of the 36 trials, when exposed to the long (purple) and short (blue) artificial languages.

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