

Bilingual effects in recursive noun phrases

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Bilingual acquisition often leads to alterations in the timing of development due to either general conditions inherent to dual language learning (i.e., reduced input) or by influence from the other language (which can lead to delay/acceleration) (Paradis & Genesse, 1996; Meisel 2007; Kupisch, 2007; Hulk & Muller, 2000; Pérez-Leroux, Pirvulescu, & Roberge, 2009; Pirvulescu, Pérez-Leroux, Roberge, Strik & Thomas, 2013). This study investigates how the acquisition of recursive modification is affected by bilingualism in general, and by the subtle variation in the various types of nominal modification strategies across the two languages. Recursive modifiers have proven to be difficult for monolingual children (Roeper, 2011; Pérez-Leroux et al, 2012; Pérez-Leroux et al. 2014) and for adult L2 learners (Limbach & Adone 2010). We explore the course of bilingual acquisition of nominal recursion: Is the general difficulty of recursive NPs magnified in bilingual development? Do we see a general bilingual delay for recursive nominals? Are the different modification strategies affected differently, depending on the structural patterns of congruence across the two languages of the bilingual child?

To address these questions we elicited production of recursive nominal modification in dual language learners aged 4-6, the period during which nominal modification becomes recursive and productive in English monolinguals. We considered constructions that vary across the two languages in directionality, case, productivity and lexical restrictions, as many lexical prepositions in Spanish introduce VP level modifiers, but not in NP internal position.

Type	Example	L1/L2 difference
Genitive	<i>Elmo's sister's ball</i>	directionality; case vs. linker <i>P de</i>
PP-comitatives	<i>The baby with the woman with the flowers</i>	restricted in Spanish
PP-locatives	<i>The dog under the tree next to the house</i>	restricted in Spanish
PP-partitives	<i>The box of cans of tomatoes</i>	more restricted in English

We report preliminary results comparing the frequency and type of recursive NPs produced by bilingual ($n=25$, age range 4;0-6;11, $M = 5;06$, $SD = 11$) and monolingual children ($n=25$, age range 4;01-6;07, $M = 5;03$, $SD = 11$). Overall, bilinguals and monolinguals performed similarly in terms of either their overall ability to make reference or to produce recursively embedded structures. There was an apparent monolingual advantage in the onset of embedding, but this difference subsides with age; the overall results show no differences between the groups. There was no seeming effect of specific constructions; i.e., neither delay with genitives, nor acceleration with partitives, nor overuse of the minimal preposition *of* by analogy to Spanish *de*. However, in the analysis of response types we observed a trend toward monolingual reliance on same type recursion, whereas bilinguals tend to use more mixed strategies. In the GEN condition bilinguals use more PPs and RCs than GENs. In the PP-comitative condition bilingual use of alternative strategies reaches significance ($p = 0.003$); they show overuse of RC's where monolinguals use PP-comitatives. Despite of the general difficulty with recursion, bilingual children's mastery of recursive modification is on par with monolinguals (at least in the majority language). Furthermore, bilinguals even seem to prefer the more overtly elaborated, but less relative construction to by-pass the issues of lexical learning of the restrictions on prepositions.

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