

The acquisition of adverbs in trilingual children

Mihaela Pirvulescu, University of Toronto Mississauga

Virginia Hill, University of New Brunswick

Nadia Nacif, University of Toronto

Maria Petrescu, Ryerson University

Rena Helms-Park, University of Toronto Scarborough

The question we address in this paper concerns the type of interaction that takes place when language acquisition involves exposure to three languages: if syntactic or lexical errors occur, what kind of interaction/transfer may account for them? Are the interactions multidirectional and/or optional? For this inquiry we assess the acquisition of adverbs: does it measure up to the syntax and semantics of adverbs in the adult grammar of each language? If errors occur, are they due to cross-linguistic transfer, and if yes, in what direction?

We elicited data from 13 children aged 8-11, born in Canada, with Romanian as heritage language: they grew up in a predominantly Romanian monolingual environment at home until the age of 4, attended preschool in English (age 4 & 5; L2) and registered in French (L3) immersion classes at age 6. They all continue to speak Romanian at home. The data come from narratives based on *The Frog Series* (Mayer, 1967), transcribed and coded in SALT: each child tells the story in three languages. The corpus amounts to 8968 words (1227 T-units) and 478 occurrences of adverbs. We measured morphosyntactic complexity (verbal density), lexical richness (Guiraud's index) and accuracy (rate of error-free utterances) following Unsworth (2008). These indexes show that Romanian significantly lags behind both French and English on the morphosyntactic complexity score and also scores below English on vocabulary richness and accuracy, but not to a significant degree (see Table 1).

For the investigation of adverb acquisition, we use the comparative method developed in generative grammar on the basis of Cinque's (1999) hierarchy of adverbs. The application of this hierarchy has been validated for French and English; however, the extension to Romanian was unclear. So we first verify Cinque's hierarchy for adult Romanian grammar, and find that the relevant adverbs conform to Cinque's predictions. Hence, the syntactic pattern for adverb placement is cross-linguistically shared and stable in the three languages.

In our trilingual corpus, the distribution of all classes of adverbs and the lexical options that go with it show adult competence in all three languages. Errors are detected only in French, and they concern mainly word order. The errors mimic the Romanian word order, either because the adverb is fronted for discourse effects, or because the level of verb movement in relation to the adverb location is misjudged. For example, there are 26 occurrences for Fr. *encore* 'still, again', out of which there are 7 errors spread over 6 participants. These participants can use Fr. *encore* correctly, as in (1), or incorrectly, as in (2). The word order in (2) replicates the word order in adult Romanian, as in (3), where the adverb moves from its post-verbal position to a preverbal position (i.e., to the CP field) when fronted for discourse effects (e.g., prominence or contrastive focus reading). The error in French is motivated by the intended discourse effect, implemented with the Romanian pattern (i.e., fronting) instead of focus in situ, in French.

(1) *Après la petite grenouille, elle est encore près de la grande grenouille* (Andu 122)

after the small frog she is still close of the big frog

'Then the small frog is still close to the big frog.'

(2) *Et le garçon *encore il dit à la grande grenouille de ne pas faire ça.* (Andu 134)

and the boy again he tells to the big frog to not do that

'And the boy tells the big frog again not to do that.'

(3) *Și băiatul tot îi spune broaștei celei mari să nu facă asta.*

and boy.the again to.it tells frog.the.DAT the big to not do this

The analysis we propose for these results takes into consideration the differences in the setting of major parameters that may have an impact on the linearization of clausal items. Of relevance are: (i) the level of verb movement; and (ii) the configuration for discourse mapping. For verb movement, Romanian and English display opposite parametric settings: the former has obligatory V-to-T across the board (Alboiu 2002), whereas the latter has the verb in vP in all configurations (Haegeman 1994). On the other hand, French displays mixed settings: it has V-to-T with finite verbs and sometimes with infinitives, but the verb in vP with infinitives (Pollock 1989). The same contrast is seen with discourse mapping: Romanian has prolific fronting to discourse positions (i.e., different types of topics and contrastive focus, it involves clitic left dislocation and qualifies as a discourse configurational language; E. Kiss 1995), whereas English has a poor left periphery for discourse fronting, and when that happens, it involves quantificational chains (versus clitic left dislocation; Delfitto 2002). French, on the other hand, displays mixed settings: e.g., it allows for clitic left dislocation of topic constituents, as in Romanian, but not of focus constituents, the latter involving clefts as in English. In light of this background, the errors we see in the distribution of adverbs indicate a transfer from Romanian to French, especially where the discourse mapping is concerned: there is a tendency to front the French adverbs or right dislocate them in the way these operations apply to the adverb counterparts in Romanian. There are also instances where deviations of word order arise from the occasional raising of the French infinitive verb above the adverb location, on the Romanian pattern. Hence, we conclude that the transfer takes place from the language with stronger settings for the parameters in (i) and (ii) towards the language with weaker/mixed settings for the same parameters. There is no transfer to or from English, which has clear-cut opposite parametric settings to Romanian. Notably, this transfer takes place despite the fact that the participants' syntactic competence in Romanian lags behind French and English.

The theoretical implications of this analysis for the current hypotheses on trilingual and multilingual acquisition are as follows: (i) Our analysis straightforwardly suits models where the transfer can be non-facilitative and justified by the proximity in parametric settings (Rothman, 2015, Westergaard et al 2017). In addition, our data also indicate that what transfers, are productive grammatical rules over contextually or lexically restricted rules of the target language (Amaral & Roeper 2014).

Table 1. Comparing language proficiency indexes across the three languages

	Romanian				French				English			
	Mean	Median	Range	SD	Mean	Median	Range	SD	Mean	Median	Range	SD
Verbal density	1.39	1.34	1.19-2.09	0.22	1.62	1.57	1.36-2.19	0.27	1.76	1.64	1.47-2.49	0.3
Giraud's index	6.31	6.36	4.95-7.29	0.64	5.55	5.64	4.3-6.85	0.78	6.84	6.51	6.21-7.78	0.62
Rate error-free utterances	0.7	0.7	0.47-0.91	0.13	0.53	0.52	0.35-0.78	0.1	0.82	0.82	0.63-0.89	0.07

Romanian significantly lags behind French and English re: morphosyntactic complexity score ($Z=-2.691$, $p=.007$).

