

Verb acquisition in monolingual and multilingual children and adults

We investigated whether children and adults, monolinguals of French (L1) or multilinguals (MUL) are sensitive to sub-regular verb conjugation patterns (e.g., Albright, 2002; Clahsen, 1999; Kresh, 2007, 2008; Labelle & Morris, 2011a, b; Yang, 2002). We hypothesized that L1 and MUL participants would process verb inflection patterns differently (e.g., Paradis, Rice, Crago & Marquis, 2008 for English) based on their default status (regular *-er* verbs), and reliability (e.g., sub-regular *-ir* verbs) due to less exposure to the language (Nicoladis, Palmer, & Marentete, 2007), with children showing lower proficiency than adults.

Verbs were elicited in 198 participants: 162 children and 36 adults that were either monolingual (L1) or multilingual (MUL) speakers of French. Children were 101 preschoolers (56 L1, 45 MUL) and 61 first graders (36 L1, 25 MUL) attending French school in the Montreal area, Canada. Children exposed to French a minimum of 90% of the time were considered L1 French, while those exposed to French less than 90% of the time were considered MUL (their other languages included English, Arabic, Spanish, Italian, Romanian, Portuguese, Farsi, Berber, Punjabi, and Hungarian). 36 adults (25 L1, 11 MUL) were also evaluated. MUL adults were recruited with the criteria that they had immigrated to Canada no longer than 5 years prior to the experiment and that they were either studying or working in an immersive French-speaking environment. MUL adults included native speakers of English, Arabic, Spanish, Basque, Bissa, and Russian. Children were tested in a quiet room in their school while adults were tested in a quiet room in our laboratory. The stimuli used in this experiment were twenty-four French verbs in the *passé composé* (perfect past) with regular, sub-regular, and irregular participle forms (6 each, ending in /e/, /i/, /y/ or other idiosyncratic) that were elicited using an Android application. These verbs were presented, with images representing them, in infinitival forms (infinitival complements or the periphrastic future, e.g., *Marie va cacher ses poupées* [Mary AUX hide-INF her dolls], ‘Mary will hide her dolls’) and present tense contexts (e.g., *Marie cache toujours ses poupées* [Mary hide-3SG always her dolls], ‘Mary always hides her dolls’). Participants were prompted for target verb forms in the *passé composé* with the question ‘What did he/she do yesterday?’.

An ANOVA with verb type as a within factor (4 levels) and the between-factors language group (2 levels) and age group (3 levels) reveals a main effect of verb type, $F(3, 190) = 77.92, p < .001, \eta^2 = .55$ (/e/ = /i/ > /y/ > other) as well as an interaction of verb type and age, $F(6, 380) = 6.40, p < .001, \eta^2 = .09$, while all other comparisons failed to reach significance (see Figure 1). Contrary to our expectations, both language groups show strengths on default patterns and sensitivity to sub-regular verbs, including those with the final /y/ vowel, which are considered non-productive (e.g., Royle, Beritognolo, & Bergeron, 2012), while children exhibit lower proficiency than adults (kindergarten > first grade > adults) on all verb groups. These data show that even though they have lesser exposure to French, MUL children and adults rapidly master (i.e., within 5 years) French verb conjugation patterns to the same level as L1 children and adults in immersive (i.e., school or work) contexts. These are surprising given that some studies show lower performance in L2 children compared to L1 children with and without specific language impairment (e.g., Paradis et al. 2008). Ongoing analyses with participant as random variable will help us explore the relative impact of language exposure to learning these patterns.

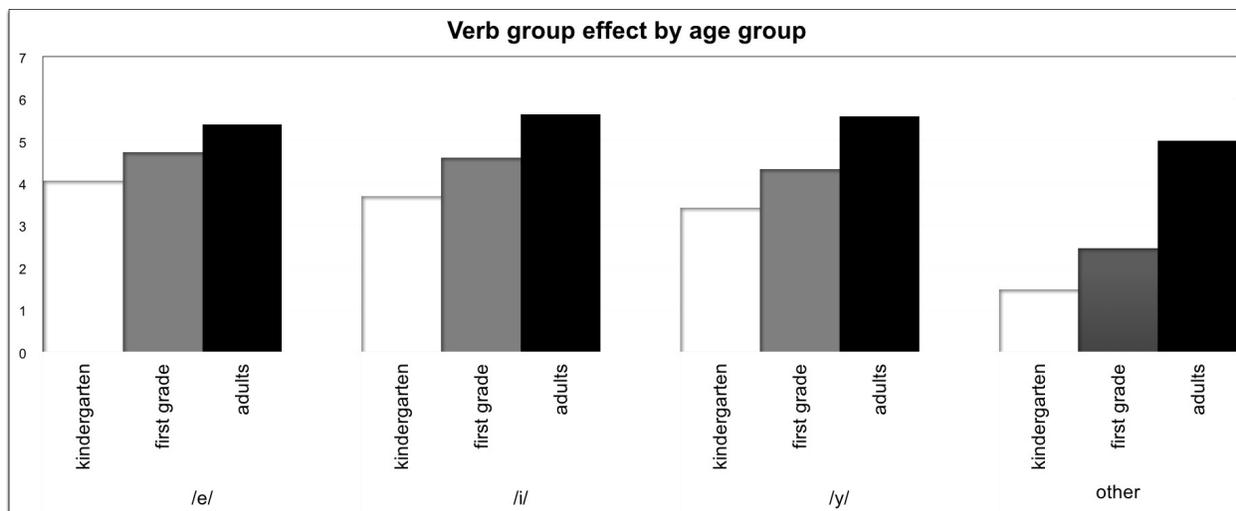


Figure 1: Participant group and verb type effects on production of the *passé composé*.

References

- Albright, A. (2002). Islands of reliability for regular morphology: Evidence from Italian. *Language*, 78, 684-709.
- Clahsen, H. (1999). Lexical entries and rules of language: A multidisciplinary study of German inflection. *Behavioral and Brain Sciences*, 22, 991-1060.
- Kresh, S. (2007). What's regular (and what's not) in French-speaking children's processing of inflectional morphology. In A. Gavarró and M. J. Freitas (Eds.) *Proceedings of Generative Approaches to Language Acquisition (GALA)*. Cambridge Scholars Publishing.
- Kresh, S. (2008). *L'acquisition et le traitement de la morphologie du participe passé du français* (M.A. Thesis). Université du Québec à Montréal, Montreal, Canada.
- Labelle, M., & Morris, L. (2011a). The acquisition of a verbal paradigm: Verb morphology in French L1 children. Retrieved February 7, 2016 from Archipel UQAM <http://www.archipel.uqam.ca/id/eprint/3992>
- Labelle, M., & Morris, L. (2011b). The acquisition of a complex morphological paradigm by L1 and L2 children. Retrieved February 7, 2016 from Archipel UQAM <http://www.archipel.uqam.ca/id/eprint/3991>
- Nicoladis, E., Palmer, A., & Marentete, P. (2007). The role of type and token frequency in using past tense morphemes correctly. *Developmental Science*, 10(2), 237-254.
- Paradis, J. P., Rice, M. L., Crago, M., & Marquis, J. (2008). The acquisition of tense in English: Distinguishing child second language from first language and specific language impairment. *Applied Psycholinguistics*, 29(4), 689-722. doi:10.1017/S0142716408080296.
- Royle, P., Beritognolo, G., & Bergeron, E. (2012). Regularity, sub-regularity and irregularity in French acquisition. In T. Stolz, H. Otsuka, A. Urdze, & J. van der Auwera (Eds.), *Irregularity in Morphology (and Beyond)* (pp. 227-250). Berlin: Akademie Verlag.
- Yang, C. D. (2002). *Knowledge and learning in natural language*. Oxford: Oxford University Press.