L1 Influence or Language Impairment? A Twin Case Study

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This study examines the phonological systems of two 7-year-old English-speaking twins acquiring L2 French in a natural setting. As exposure to French began 2½ years prior to testing (i.e. during the critical period), a language level similar to that of L1 French-speaking children would be expected. This is not the case, however. Both twins have very low Core Language Scores on the CELF-4 (standard scores: 40 and 54), and scores on French standardized tests also show difficulty (word repetition: -3.5 and -1.23 SD), though one twin displays greater difficulty than the other. The question is whether the L1 plays a role in their weak performance in French, or whether it is superimposed on a language disorder in one or both children. Language acquisition by twins is often reported to be atypical (Dodd et al., 1994; Stromswold, 2007; Bishop, 2006): from a simple delay to a real disorder, twins are more affected than singletons (Thorpe, 2006). In twins with SLI, Stromswold et al. (1996) note that genetic factors are involved in language impairment and the nature of the impairment. Recent studies draw a parallel between the manifestations of pathological development and child L2 acquisition (Grüter, 2005; Hamann & Belletti, to appear; Paradis, 2004). In the case of L2 twins, factors are multiple and intertwined. Our study aims to disentangle L1 influence from the consequences of a potential language disorder, via fine-grained phonological analysis of production on the word repetition task and in spontaneous language. Preliminary results suggest that these twins have structurally different phonological systems. We hypothesize that atypical compensatory structures will appear in the case of a disorder, whereas the structures will be comparable to those produced by younger typically-developing L1 children, but also to those produced by the twins' siblings, in the case of a greater L1 influence.

- Bishop, D. (2006). Developmental cognitive genetics: How psychology can inform genetics and vice versa. Quarterly *Journal of Experimental Psychology*, 59, 1153-1168.
- Dodd B, McEvoy S. (1994). Twin language or phonological disorder? *Journal of Child Language*, 21, 273-89.
- Grüter, T. (2005). Comprehension and production of French object clitics by child second language learners and children with specific language impairment. *Applied Psycholinguistics*, 26, 363–91.
- Hamann, C. & Belletti, A. (to appear). Developmental patterns in the acquisition of complement clitic pronouns: Comparing different acquisition modes with an emphasis on French. *Language Acquisition*.
- Paradis, J. (2004). The relevance of specific language impairment in understanding the role of transfer in second language acquisition. *Applied Psycholinguistics*, 25, 67–82.
- Stromswold K. & Rifkin J. I. (1996). *Language Acquisition by Identical vs. Fraternal SLI Twins*. Paper presented at the Symposium on Research in Child Language Disorders. June, 1996.
- Stromswold, K. (2007) *Genetics and the structure, acquisition and evolution of language*. Paper presented at Biolinguistic Investigations, Santa Domingo, Dominican Republic, February 2007.
- Thorpe, K. (2006). Twin children's language development. Early Human Development, 82, 387-395.