The existence of age effects in SLA (second language acquisition) is uncontroversial. SLA pronunciation studies support the idea that age of learning (AOL) has a gradient effect in the phonological acquisition of an L2 and, therefore, the older the L2 learners, the less native-like production they are able to achieve (e.g., Asher & García 1969; Flege & Fletcher 1992; Flege et al. 1995; Patkowski 1990; Thompson 1991). The Maturational Hypothesis (MH) explains this AOL effect by structural and functional changes in the brain organization at the age of four (Meisel 2009). The consequence of this hypothesis is that successive acquisition will exhibit qualitative differences, as compared to monolingual as well as bilingual first language development, if children are first exposed to the second language at around this age.

An alternative explanation provided by the Interaction Hypothesis (IH) holds that the L1 transfer into L2 changes as a function of the state of development of the L1 phonological system at the time L2 learning begins (Flege 1992, 1999; MacKay & Fullana 2007; Walley & Flege 1999). Specifically, this hypothesis predicts that, after an AOL of 5–7 years, because at this age the categorization of the L1 phonological system has been completed, L2 phonological production will be affected by L1 transfer. If these two hypotheses are right, the AOL should have a gradient effect in the phonological acquisition of an L2 during childhood, due to neurophysiological maturation or stabilization of the L1 phonological system. That is, the younger the children, the more native-like production they achieve. Moreover, L1’s transfer should just take place if L1 phonological categorization is complete.

The aim of the study is to test both hypotheses in a naturalistic setting. To do that, we analyzed and compared the (semi)spontaneous speech of cL2 German learners to simultaneous German-Spanish bilingual children in the target language, Spanish. The children were matched for AOL (0, 2- to 4-, and 5- to 11-years of age) as well as for length of exposure (1- to 3-, and 7- to 8- years of exposure). We analyzed their Spanish productions with regard to three phonological processes: resyllabification, spirantization and assimilation of place of articulation in nasals. Since these processes are applied at all prosodic levels in Spanish, up to the Intonational Phrase, but their application is much more restricted (or even inexistent as in the case of spirantization) in German, they allow for a comparison between the L1 and the L2 of these children.

Our preliminary results show that cL2 children living in Spain performed native-like, whereas simultaneous bilinguals living in Germany did not. This result does not agree with the predictions of none of the tested hypotheses (either MH or IH). Furthermore, at least during the first two years of exposure, the older cL2 learners tend to show less amount of phonological transfer from their L1 than the younger cL2 learners, especially concerning resyllabification and spirantization. However, after seven years of exposure these differences disappear. These results agree with those of other researchers, who have found better performance by late than early learners of an L2 (e.g., Cenoz 2003; García-Lecumberri & Gallardo 2003; Olson & Samuels 1973; Snow & Hoefnögel-Höhle 1977). They further suggest that a later AOL provides an acceleration factor in child L2 phonological acquisition, at least during the first years of acquisition.
References:


