Phonological processes in Interlanguage and Protolanguage

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Studies that consider developmental language data in child and adult speech are less common (e.g. Alkhudidi, Hakooz, Walker, Stevenson, & Rafat, 2020) in language acquisition research and have been traditionally under-represented because of the fundamental difference hypothesis that postulates that the adult L2 acquirer does not have the same potential for language acquisition as a child monolingual (L1) or bilingual learner (Bley-Vroman, 1989; Montrul, 2009). Specifically, late exposure impacts cognitive processes in terms of implicit and explicit learning, so adult L2 acquirers struggle to achieve native-like aptitude (Kroll & Sunderman, 2003; Ioup, 2008). While literature has focused on L1 and L2 acquisition differences, similarities between child and adult L2 developmental speech have also been highlighted (Flege & Davidian, 1984; Major, 2001, Hansen Edwards, 2015). In fact, the presence of universals (Jakobson 1941/1968; Major 2001; Ohala, 1980) advocates in favor of comparisons between *interlanguage* (IL) (Selinker, 1976) and *protolanguage* (PL) (Babatsouli & Ingram, 2018), i.e. child developmental speech. The present research aims to inform the study of universals with regard to phonological processes (e.g. Diaz, Mitterer, Broersma, & Sebastian-Galles, 2012; Engel de Abrey & Gathercole, 2012; Grunwell, 1981), by investigating patterns in L2 production and the presence of similarities of chronology in IL and PL. Specifically, the study investigates the phonological processes involved in consonant production, evidenced in the naturalistic speech productions of a Greek-English speaking child, and compares them with those of forty adult L2 speakers who speak English and Greek as an L2 at different proficiency levels. The bilingual child's developmental speech, elicited during daily mother-child interactions, is examined longitudinally, starting at 2;7, across 17 consecutive months to investigate phonological processes in her languages across the develpomantal span. The child's data is compared with data from twenty L2-English/L1-Greek speakers and twenty L2-Greek speakers with English (ten), Albanian (five), and Georgian (five) as L1, elicited via the author's 1-hour interview with each. All data were digitally recorded and phonetically transcribed in IPA, while the reliability of transcription is validated with subsequent acoustic analysis using Praat (Boersma & Weenink, 2015). Results show (i) similarity with child normative patterns per language in the bilingual child's speech; ii) evidence of known child phonological processes in the adult L2 data in terms of substitutions, assimilations, phonetic variability, non-isomorphic processes, co-occurrence of advanced and frozen forms, etc., iii) an accord between IL and PL in the chronological manifestation of phonological processes with: a) consonant harmony, metathesis, word onset prominence and syllabic lateral vocalization occurring early on (child's early developemnt vs. beginner/ intermediate adult L2) and b) frozen forms and rule overgeneralization persisting in advanced L2 speakers as in child speech. The study also suggests that age of consonant acquisition in PL relates to the speed of acquisition in the IL and to the persistence or not of interference from the L1. Later acquired allophones in L1-Greek show corresponding substitutions and are more marked in speakers of Greek as an L2, while the most persisting transfer occurs in L1 sounds that are acquired by the child earlier. In sum, there is systematicity found across different developmental stages between the interlanguage and protolanguage data examined here that may be used to model the route of phonological processes in adult L2 speech across its developmental path.

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