



Is what we hear how we speak? Speech analysis of Polish speakers of English with sensorineural hearing impairment

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There is a considerable number of studies devoted to the speech of people with sensorineural hearing loss in first language (L1) acquisition. Yet, there has been little research investigating how this impairment affects acquisition of the second language (L2). This study analyses L2 (English) speech of three Polish patients who are hard-of-hearing. L2 proficiency of the subjects was evaluated with *The Clinical Test of Proficiency in English as the Second Language* (Połczyńska-Fischer 2006). One of the patients had a moderate hearing impairment acquired early in life and spoke his L2 on a pre-intermediate level. The remaining two patients had a profound congenital hearing impairment. One of them had a poor L2 proficiency and the other one had an intermediate L2 proficiency. In the experiment, *Polish Dysarthria Test for TBI patients* (Połczyńska and Pufal 2006) was used to assess L1 and *ESL Test in Dysarthria* (Połczyńska 2006) was used to assess L2. The patients' speech was recorded and analysed with Praat, a computer programme for speech analysis, and then transcribed. The results were interpreted within the framework of the theory of Natural Phonology (Stampe 1972, Dressler et al. 1987, Dziubalska-Kończak 2002) and Phonology as Human Behaviour (Tobin 1997). The results show many pathological phonological processes and intonation problems in patients with a congenital and profound impairment, while the performance of moderately impaired patient was good. Most errors occurred in difficult, high frequency sounds (e.g. sibilants). The patients with higher L2 proficiency had a similar number of processes in L1 and L2, whereas the patient with poor L2 proficiency had a considerably higher number of processes in L2. Phonemes that are the least communicative (not heard) and more difficult for the patients are more likely to undergo phonological processes to become easier to articulate and/or perceive.

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