

## **First and second language speech of dysarthric patients with traumatic brain injury:**

### **An acoustic analysis**

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The purpose of the presentation is to demonstrate the characteristics of first (L1) and second (L2) language dysarthria (a speech disorder) in individuals with traumatic brain injury (TBI) after prolonged coma. The study is based on acoustic analysis of speech of six patients who knew English to various degrees before trauma and a control group. The results show that TBI patients use linguistic processes that appear in children's developmental speech. However, there exist considerable differences in the use of these processes: unlike children, post-coma individuals have a fully established phonology and they use processes as phonetic strategies based on organic speech problems to compensate for insufficient control of their articulatory musculature. Thus, their processes are more regular and easier to predict. Although dysarthria is an organic disorder, processes used in L1 differ to some extent from those used in L2, in which language competence level is only moderately proficient and when L2 learning has started around puberty.