Non-verbal vocalizations in spontaneous speech:
The effect of age

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It is well known that spontaneous speech contains quite a few non-verbal vocal elements in addition to the verbal content (Trouvain 2014). We can express our mood, our emotions, our opinion with them but we can also reflect our speech partner's message. There are also non-verbal vocal elements without meaning (unintentional body sounds, physiological re-flexes). The vocal elements which refer to our emotional state or physical condition and those body sounds which occur as a natural attribute to articulation are unintentional ele-ments of speech, while other gestures, sounds, hummings are created intentionally (Vicsi et al. 2011; Neuberger 2012).

Research on non-verbal vocalizations is quite underrepresented in speech sciences, how-ever, it is quite important from the aspect of many practical applications in addition to their role in linguistics (e.g. speech technology, forensic phonetics, judgements of speakers' at-tributions; Li et al. 2008; Mohammadi et al. 2010; Prylipko et al. 2012; Neuberger & Beke 2013; Sárosi et al. 2014). The frequency and duration of non-verbal vocal elements depend on several different factors like individual characteristics of the speaker, their age, physical and emotional state, the relationship between the speakers or the speech task. This presenta-tion deals with the effect of age.

The most frequent types of non-verbal vocalizations are audible breathing and laughters (Trouvain & Truong 2012), and tongue clicks are relatively frequent, too (Bóna 2015). Pre-vious studies were carried out mostly with young and middle-aged adults. There are no data about the speech of other age groups. The aim of this presentation is to analyse how occur-rences of audible breathing and tongue clicks change depending on the speakers' age.

The main questions of this presentation are the following: 1) Is there any difference in the frequency of occurrences of audible breathing and tongue clicks in the speech of children, young adults and the elderly? 2) What is the duration of the realization of these elements in the three different age groups?

In the presentation these questions will be answered by the analysis of the speech of 60 speakers: 20 9-year-old, 20 young (20-30-year-old), and 20 elderly (70+) speakers. The speech samples were selected from two speech databases: GABI (Bóna et al. 2014) and BEA (Gósy 2012). 5-minute-long spontaneous narratives from each speaker (altogether 300 minutes of speech) were analysed. Non-verbal vocal elements were annotated by Praat soft-ware. The frequency, duration and place of occurrence were analysed.

Results show that the examined phenomena occurred most frequently in children's speech. There was significant difference in the duration of breathing between the age groups, too. The duration of tongue clicks did not differ significantly between the groups.

Our research carries an overall importance for practice. The further analysis of non-verbal vocalizations could contribute to a more precise profiling of speakers, to define the speak-ers' age based on the acoustic structure of speech.

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