

In the contemporary world, speaking in a foreign language has become a norm, rather than exception. We are surrounded by bi- and multilingual individuals, or hear about bilingual parents raising their children in a bilingual environment. The phenomenon of bilingualism is of interest to many fields of science including linguistics, sociology, psychology or neurology. Scientists set out to investigate how learning and speaking a second language might influence our perception of the world, our cognitive development, and the potential prevention of neurodegenerative diseases such as the Alzheimer's or Parkinson's disease. In the present project we focus on the psychophysiological correlates of affect processing in the first and second language of proficient Polish-English bilinguals.

Affect is an integral part of human communicative interactions, with language being an essential medium of expression and comprehension of affective information. This begs the question of whether bilingual individuals process affective information in the same way in their native and foreign languages? Evidence from bilingual psychotherapy shows that the second language might constitute a tool through which bilinguals can discuss traumatic experiences from the past or taboo-related topics, which would be otherwise too overwhelming in the more affectively loaded, first language. This example shows that a second language might be construed as a 'filter' of strong affective information. These findings were corroborated in introspective studies on affect perception and expression among healthy bilingual individuals. Oftentimes, participants viewed their second language as being affectively detached and not well suited or convenient for expressing, among others, feelings of love or endearments.

In the current project we investigate the psychophysiological processes and mechanisms that underlie the processing of affective information in the first and second language of Polish-English bilinguals. To achieve this, we implement the electroencephalogram (EEG) that tracks and records the neural activity at the scalp, which makes it possible to track cognition with no delay and in a non-invasive way. At the same time, EEG is considered a reliable and effective tool for examining linguistic and affective processes. Our project presents two innovative methodological solutions. First, the scarce EEG literature on affective language processing in bilingualism has been limited to the investigation of decontextualized affective words (e.g. 'kind', 'ugly') that do not reflect natural communicative interactions. The goal of the two experiments presented in the project is to investigate and directly compare participants' psychophysiological and behavioural responses to affective words presented in isolation (experiment 1) and in a sentence context (experiment 2) in their first and second language. Second, we will invite to the project two groups of proficient Polish-English bilinguals, including bilinguals living in the UK for at least 2 years, as well as bilinguals who have recently arrived in the UK. This holistic, pragmatic perspective will provide us with a comprehensive and authentic picture of the phenomenon and thus contribute to the understanding of psychophysiological processes underlying the subjective affective experiences reported in the psychotherapeutic and introspective studies.

We believe that the results of the project will influence future research questions and methodologies as regards the affect-language interaction in bilingualism. The presented methodological solutions have the potential to become a foundation for future experiments aiming to broaden the current knowledge on the role of first and second language in affect perception and expression. In the long run, a pragmatic approach to the investigation of affective language in bi- and multilingual individuals might have direct implications in bilingual therapy and education. Summing up, the presented project stands a great chance to be the first to provide a holistic understanding of the issue of affective language processing in bilingualism.