

### **1. Research project objective:**

In today's bilingual world, it is particularly important to understand how social norms and expectations impact us when we are exposed to them in the first (L1) as compared to foreign (L2) language context. Recent research has shown that stereotypes are activated automatically when presented in the first language; yet, this may not necessarily be the case when we perceive them through the lens of our foreign language. Indeed, preliminary evidence suggests that bilingual speakers may be less sensitive to social norms when operating in their foreign language. Little do we know, however, about whether this decreased sensitivity might also be observed in response to stereotypical language, while it seems to be critical to advance our knowledge on how stereotypes impact bilingual communication in social, educational, and political contexts.

### **2. Research goal:**

In this project, we aim to broaden the scientific knowledge about the automaticity of stereotype activation in L1 and L2. To this end, we will investigate the physiology and brain dynamics of stereotype processing in the first and foreign language of Polish (L1) – English (L2) bilinguals. In the two studies conducted as part of this project, we will employ electroencephalography (EEG) to record participants' brain activity in response to stereotype-congruent and incongruent stimuli, presented within sentences (Experiment 1) and word pairs (Experiment 2). Additionally, we will manipulate perception threshold by employing both subliminal and supraliminal priming paradigms to investigate the degree of automaticity of stereotype activation in L1 and L2.

### **3. Methodology employed in the research project:**

In order to examine specific differences in how stereotypes are processed by Polish-English bilinguals, the experiments described in the present project will employ the EEG method with event-related potential (ERP) analyses, whose aim is to examine the electrical brain activity evoked in response to a linguistic stimulus (e.g., a presented sentence or a word pair). It will thus be possible to analyze different stages of stereotype processing in the first and foreign language with a precision of up to 1 ms.

### **4. Expected results:**

We expect to observe differences in electrophysiological patterns to stereotype-congruent and incongruent stimuli as modulated by the language of operation, showing a decreased sensitivity to and a weaker automaticity of stereotypes activation when these are presented in the foreign compared to first language context. This would suggest that the bilingual context might become a favorable communication form in order to mitigate stereotype threat people automatically give in to.

### **5. Significance of the project:**

Our project will make innovative and ground-breaking advances in the science of social psychology and linguistics by using a neurophysiological technique to derive metrics measuring sensitivity to stereotypes in the first and foreign language. Since nowadays people more and more often communicate in their foreign language, our findings will help to understand how the language of operation shapes our sensitivity to stereotypes, providing answers and raising timely questions in the field of the neurolinguistics of bilingualism. Crucially, the present project is likely to stimulate a new research direction that might further show whether bilinguals can also be less affected by stereotype threat when operating in the L2 context, which would have critical implications for education, labor market, politics, and general wellbeing.