

Interpersonal relationships are a very important part of our lives. The romantic relationship with our spouse, a job interview, or asking a stranger about a direction all depend on our exceptional ability to understand what others can have in their minds. This ability is called the theory of mind and it allows us to imagine what beliefs or desires others can have, and based on this knowledge to predict their behavior. Scientists define two distinct types of the theory of mind. Affective theory of mind, responsible for understanding emotions and feelings of others and cognitive theory of mind, which allows for more complicated processes such as predicting beliefs of others, even without emotional information. Nevertheless, in many everyday situations affective theory of mind and cognitive theory of mind are working together. For example to understand if someone is feeling guilt, we need to understand a feeling of sadness as well as that someone has a belief about being guilty.

The majority of the studies concerning the theory of mind focus on the development of this ability during childhood or impairments in the theory of mind observed in people with various disorders. Unfortunately, a very small portion of research investigates theory of mind in adults. Among these which do, studies focusing on how adults, especially those working with children, understand youngsters are lacking. Teacher-student relationship is related to student's academic achievements and classroom behavior. Thus, teachers' ability to understand their pupils impacts children's development and wellbeing.

There are some studies showing that people are generally better in recognizing faces, emotions, and mental states of members of their own age group. However, teachers need to overcome this predisposition in order to correctly understand children.

In my innovatory project, I will use various tasks engaging affective and cognitive theory of mind on different levels, to examine how teachers and adults not working with children understand emotions, mental states and beliefs of youngsters. I will use traditional behavioral tests, along with novel neuroimaging techniques in order to investigate brain mechanisms underlying theory of mind abilities.

This is the first project, which aims to thoroughly investigate the ability to understand children in teachers. It will allow examining how experience in working with children influences our ability to understand them and how it changes the functioning of brain networks responsible for this ability. This project will lead to improvement of current knowledge regarding experience-based changes in neuronal processes responsible for social interactions. Finally, the results of this project can improve current guidelines of teacher-student relationship.