In their first years of life, children's social and cognitive abilities undergo a dynamic growth. Also, their brain is becoming more specialized for processing various categories of information. Around the age of four, typically developing children begin to pass tasks that measure Theory of Mind (ToM). ToM, often referred to as mentalization or *mindreading*, is the ability to understand thoughts, intentions or beliefs of other people, and is considered to be crucial for the effective social functioning. ToM is typically measured with the use of False Belief Tasks, based on the following scenario: a protagonist places an object (e.g. a toy) in location A and then leaves the scene. Meanwhile, in the protagonist's absence, the object is moved to location B. Participant's task is to report where the protagonist believes the object to be, or where the protagonist will look for the object when he/she returns

The studies conducted under this research project will examine sighted children of blind parents. Taking into account that the previous studies emphasized the vital role of eye contact in joint attention, which is considered by some authors as a basis for developing ToM, one might expect that constrained face-to-face communication with a parent could have a detrimental effect on mentalizing abilities. However, to date, previous studies examining this population have revealed that sighted children of blind parents do not show impairments in their overall social functioning. Quite the contrary, they are likely to efficiently switch between different channels of social communication and adjust their behavior to the interaction partner already at the age of 6. months. Such flexibility is likely to facilitate other aspects of their functioning, including inhibitory control or task switching. These abilities are called executive functions and their relation to children's performance in False Belief Tasks has been thoroughly reported, since, as some authors suggest, providing the proper answer regarding someone's belief often requires inhibition of our own perspective on the situation. The main research question in this project is how these communicative abilities may shape the development of cognitive functions and mentalizing in sighted children of blind parents. Moreover, assuming that children of blind parents develop ToM earlier than their peers raised by sighted parents, a major issue will also concern whether or not and if so, how it may affect the process of specialization of the brain. To date, neuroimaging studies have reported that mentalizing engages a network of cortical structures, called "ToM network". Across the lifespan, the functional specialization process within these structures is being observed, meaning that ToM network becomes more "sensitive" to information containing others' beliefs and its response to other social-relevant information, decreases. In other words, it can be said, that the brain is becoming more specialized in processing others' beliefs and it seems to be related to the ongoing progress in children's performance in False Belief Tasks.

In conclusion, not only will this research project allow us to assess whether children of blind parent develop executive functions and mindreading earlier in development, but it will also investigate whether they show accelerated specialization within ToM network. Such a possibility will be examined with the use of functional near-infrared spectroscopy (fNIRS), a non-invasive technique of measuring brain activity, applied even in infants' research. The project's results will contribute to disclose the effects of early communicative experience on future outcomes in terms of certain aspects of cognitive and social functioning as well as its neural underpinnings.