

## **Polish and Norwegian language and world knowledge development in mono- and multilingual children**

One of the effects of mass migration in modern Europe is the increase in the number of multilingual children. An example of children growing up in contact with many languages are children of Polish immigrants in Norway. About 100,000 Poles are currently living in Norway, and almost 20,000 of them are children. Children of Polish parents in Norway often speak Polish at home but use Norwegian to communicate with their social environment outside the family. However, little is known about how Polish-Norwegian children develop in terms of the acquisition of both their two main languages (Polish and Norwegian) and their knowledge of the world, and how cultural differences between Poland and Norway affect their development.

Although multilingualism is a growing phenomenon in Europe, traditional educational systems in many countries do not accommodate enough the needs and abilities of multilingual students. Numerous myths about multilingualism are still present in the public awareness, which have an impact on the situation of children who speak many languages.

Multilingualism poses particular challenges for children in the sphere of language acquisition, because they have limited contact with each language. For this reason many researchers suggest that comparing multilingual children directly with monolingual children may lead to too hasty conclusions. Such direct comparisons can give rise to the conviction that the knowledge multilingual children have of each of their languages is limited, compared to that of monolingual children who use that language, and make both parents and teachers worried. However, multilingualism creates a new quality and should be considered as a whole.

Our research concerns the development of Polish-Norwegian children in the field of language acquisition and knowledge of the world, as well as word processing at the neuronal level. We will seek answers to the following research questions: 1. What are the typical trajectories of language development in Polish-Norwegian children? 2. How the brains of monolingual and multilingual children with typical and late speech development process words? 3. What is the impact of multilingualism and cultural differences in the educational systems of Poland and Norway on language development and knowledge about the world? 4. To what extent the development of multilingual children may be supported by early training for parents starting during pregnancy?

The project consists of a series of studies in which both multilingual Polish-Norwegian and monolingual (Polish and Norwegian) children will participate. We will compare the vocabulary of multilingual and monolingual children aged 2 to 6, but also we will examine how language and knowledge of the nature changes over time in these children. We will also examine the relationships between these aspects of development, pre-school educational practices in Poland and Norway, and the parental beliefs. Our studies will be longitudinal, i.e., the same children will be examined several times at certain intervals. In the project, in addition to standard methods of assessing the knowledge of words — parental reports and picture recognition and picture naming tests — we will use electroencephalography (EEG) to check the impact of multilingualism on the brain processing of language stimuli in young children. We will also search for neuronal correlates of word processing in children who haven't started to speak at the age of two. In the last part of the project we will investigate whether training Polish families, who live in Norway and are expecting children, may influence how much they talk to their children in their first and second year of life, and as a result, how many words their children learn early in their development.

The results of our studies will allow us to characterize the typical development of multilingual children and, as a consequence, facilitate the recognition of atypical development and identifying children at risk of developing language disorders. Factors facilitating the successful development of language and knowledge of the world in monolingual and multilingual children will also be determined. This may translate into a change in current educational practices better accommodating the needs and abilities of multilingual children.