Professionals in Health

Multilingualism in the health care sector

Communication between health professionals and patients is a central aspect of good quality health care. However, many health care professionals receive very little training about language issues. AThEME research highlights the impact of language, and especially multilingualism within the health sector. The research focused on two patient groups: young children with developmental language disorders (and their parents) and elderly people.

Multilingualism and child health care

AThEME researchers investigated bilingualism in the case of communicative impairment (i.e. impairments in speech production or comprehension, as well as difficulties in writing and reading, such as stutters, dyslexia or aphasia). People are often under the impression that bilingualism should not be promoted in cases where children have specific language impairments or learning disabilities. This is often the case with developmental dyslexia. Parents and teachers may discourage bilingualism because they fear it could have a negative impact. Contrary to these assumptions, AThEME findings support results from other studies, showing that bilingualism does not have a negative impact in cases where children have dyslexia. In fact, it can even have a positive effect in some tasks in the domains of morphological competence (i.e. the structure and content of words), metalinguistic awareness (i.e. recognizing that statements have both a literal meaning and an implied meaning) and executive functions (i.e. skills such as working memory that help us manage mental tasks). In these tasks, bilingual dyslexic children were found to outperform monolingual dyslexic children and in some cases, even monolingual typically developing children. Therefore, it appears that advantages typically associated with bilingualism might also alleviate some of the impacts of dyslexia on language. (Vender, Hu, Mantione, Savazzi, Delfitto & Melloni 2018)

Multilingualism in nursing homes

As an increasing number of older people live in nursing homes, and for longer periods of time, there is a need to ensure that a sense of home can be achieved. AThEME researchers investigated how language practices and language use can play an important role in contributing to a successful sense of home within a nursing home. One of the recommendations from this research is that people who work in nursing homes adjust the language they use with nursing home residents. Researchers found that staff working in nursing homes tend to use different language when dealing with nursing home residents: simplifying language and grammar, speaking louder, slower and with a tone that can be perceived as patronising. This affects the sense of home for nursing home residents, as they are treated as if they have diminished capacity, regardless of their individual circumstances. Another finding focuses on terms of address used towards residents in nursing homes. Some of these terms relate to the dialect spoken within the nursing home, but it cannot be assumed that all residents have positive associations with these address terms. And finally, language is an important factor for nursing home residents to be able to develop social networks. Due to associations people make with linguistic features, residents often prefer to develop social networks with fellow residents who speak the same language or dialect. (Makkinga 2017)

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 613465.

Bilingualism in pathological aging

Previous studies on bilingualism and brain disease have focused on the way brain disease affects the two languages of a bilingual. Nevertheless, there has been little research on the impact of such damage on bilingual people with age-related disorders. It is highly relevant to investigate this topic because the longer life expectancy of the European population also leads to an increase of people with age-related disorders. A large number of these people will be bilingual or at least speak a second language. AThEME researchers investigated language impairments in bilingual people with cognitive decline, dementia and movement disorders.

Among other things, they investigated language control deficits among people with Parkinson's disease. Language control is defined as the ability to avoid cross-language interference when bilinguals speak one language. Language control processes can be observed in the brain area called the basal ganglia. In the case of Parkinson's disease, the results suggest that lesions in the basal ganglia network may lead to difficulties in the control of two languages. Dysfunctions in the basal ganglia's network affect the ability to select the target language. The research results indicate that Parkinson's disease crucially affects the language control system of bilinguals. In particular, it affects those mechanisms that resolve transient interferences between two languages. (Cattaneo, Calabria, Marne, Gironell, Abutalebi and Costa 2015)

In the case of Alzheimer's disease, AThEME researchers investigated if it influences language performance and whether, in the case of bilinguals, the decline is parallel in the two languages. They followed the progression of bilingual individuals with Alzheimer's disease for one year. The participants in the study were early and highly proficient bilinguals. The research results show that language deterioration over time is the same in both languages in the case bilingual individuals with Alzheimer's. This supports the idea that age of second language acquisition and language proficiency may play an important role in the pattern of language deterioration and recovery after brain damage. (Calabria, Cattaneo, Marne, Hernández, Juncadella, Gascón-Bayarri, Sala, Lleó, Ortiz-Gil, Ugas, Blesa, Reñe and Costa 2017)

For more information

Multilingualism and child health care

Maria Vender, University of Verona, Department of Cultures and Civilizations.

E-mail: maria.vender@univr.it

Multilingualism in nursing homes

Jolien Makkinga, Meertens Institute and Maastricht University, Faculty of Arts and Social Sciences.

E-mail: jolien.makkinga@meertens.knaw.nl

Bilingualism in pathological aging

Marco Calabria, University of Pompeu Fabra, Speech Production and Bilingualism.

E-mail: calabria.marc@gmail.com

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 613465.

Publications

Calabria, M., G. Cattaneo, P. Marne, M. Hernández, M. Juncadella, J. Gascón-Bayarri, I. Sala, A. Lleó, J. Ortiz-Gil, L. Ugas, R. Blesa, R. Reñe and A. Costa (2017). Language deterioration in bilingual Alzheimer's disease patients: A longitudinal study. *Journal of Neurolinguistics 43 (2017) 59-74.*

Cattaneo, G., M. Calabria, P. Marne, A. Gironell, J. Abutalebi and A. Costa (2015). The role of executive control in bilingual language production: A study with Parkinson's disease individuals. *Neuropsychologia 66 (2015) 99-110.*

Makkinga, J. (2017). *Developing social networks in a nursing home through language*. (deliverable 4.2)

Makkinga, J. (2017). Belonging to the old and unsuccessfully aged: language practices in a nursing home in Maastricht, The Netherlands. *Journal of the Anthropological Society of Oxford* IX (1): 83-101.

Vender, M., S. Hu, F. Mantione, S. Savazzi, D. Delfitto and C. Melloni (2018). Inflectional morphology: evidence for an advantage of bilingualism in dyslexia, *International Journal of Bilingual Education and Bilingualism*, DOI: 10.1080/13670050.2018.1450355. (deliverable 4.3)

Videos

Multilingualism: an opportunity to catch also for dyslexic children, by Maria Vender.

Language practices in a nursing home, by Jolien Makkinga.

Bilingualism in healthy and pathological aging, by Marco Calabria.

Artificial grammars and the nature of language, by Diego Gabriel Krivochen.

Please mention for all references of AThEME research the AThEME project and specify the EU funding programme:

This project has received funding from the European Union's Seventh Framwework Programme for research, technological development and demonstration under grant agreement no. 613465.

You can also refer to the www.atheme.eu website. Here you can find all publications, videos, partner representatives and work package leaders.

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 613465.