

VICI-project **The age effect in bilingual development: grammatical gender in second language acquisition and first language attrition (2010 - 2015)**

## **Summary**

For the 125-year anniversary edition of *Science* a 'survey of scientific ignorance' was compiled, consisting of 125 questions as a research agenda for the next 25 years. Among these is the question why children are better at language learning than adults: while all normally developing children reach fully native speaker proficiency, foreign language learners hardly ever do.

Researchers disagree as to whether this age effect is due to **language-specific** neurobiological and maturational processes or to **more general factors** linked to cognitive development and the competition of two language systems in the bilingual mind. As both scenarios predict non-native like behavior of second language (L2) learners, it has to date been impossible to conclusively establish which of them actually obtains.

I propose that new insights can be provided by including first language (L1) attriters in the comparison: migrants who are using their L2 dominantly, and whose L1 is consequently deteriorating. These speakers acquired their L1 without maturational constraints, but they experience the same impact of bilingualism and competition between languages as L2 learners do. They therefore provide a source of data that is non-native for reasons which are known.

If attaining native speaker proficiency is maturationally constrained, processing strategies should remain native-like in an L1 which has become non-dominant. If the persistent problems of L2 learners are due to issues such as lack of exposure and competition between languages, attriters should become more similar to foreign-language learners than to natives.

This project will compare processing and production of grammatical gender in Dutch and German as L2 (Polish and Turkish learners) and as L1 (attriters in an English-speaking setting), and investigate the differential impact of age of acquisition/attrition among these groups. Grammatical processing will be assessed by means of neuroimaging techniques (ERPs) and eyetracking, production data will be based on free speech.