The longitudinal English-German early bilingualism project **TODDLE TALK**

**AIMS**
- collect longitudinal data on the English and German language development of children with English and German as two first languages (Bilingual First Language Acquisition, BFLA) and of children who started off hearing English and then started hearing German at their child care center or preschool (Early Second Language Acquisition, ESLA)
- compare these two groups of children (but see * below)
- investigate what environmental factors might influence children's development in each language, and
- compare results with those of a demographically similar group of Polish-German families (the Maluchy na językach project; see https://www.habilnet.org/science > Projects), in order to investigate the role of language status (in Germany, English is generally regarded much more positively than Polish).

* A real comparison of BFLA and ESLA had to be abandoned, though, because even after a year of intense recruitment efforts we did not find sufficient ESLA families in Germany with English as a second language. Instead, BFLA data were collected in both a German-speaking country and in the United Kingdom. Children living in the UK had English at day care or preschool, not German.

**PARTICIPANTS**
All in all we managed to secure the cooperation of 93 families (occasionally there are missing data). Recruitment was done by Bianca Mohr as part of her duties while she was Dr. De Houwer's assistant at the University of Erfurt. It took about 2 years to recruit all families.
Families lived in Germany, Switzerland, Austria, the UK, and the USA during the 18 months of data collection required per family (some families moved). Several families dropped out so we had to start from scratch. Other families were recruited when the target children were too old for Wave1. These families participated in Wave2. Most of them also participated in Wave3.
Most children in the study were in contact with just English and German on a regular basis. Additionally, we have data on several children who were regularly in contact with three languages. For now we are not considering those data.
OVERVIEW

DATA COLLECTION (instruments referenced below):

1) Wave 1 (children aged around 2;0 years): M-CDI, IRMIK, SDQ, demographic survey
2) Wave 2 (children aged around 2;9 years): M-CDI, IRMIK, SDQ, demographic survey
3) Wave 3 (children aged around 3;6 years): SDQ, demographic survey

All data are REPORTED data. The reporters are mostly mothers, but also fathers, other family members, child care workers, preschool teachers, or nannies. Data were collected between July 2015 and July 2019.

Language data

M-CDI & FRAKIS


Other than in the original M-CDI we also asked reporters to underline words children might understand but do not (yet) say. We also allowed parents to write in words equivalent to the US formulation in other English varieties that children might know (parents had diverse backgrounds: New Zealand, UK, USA, Canada, Australia).

FRAKIS: the German version of the Toddler CDI (Communicative Development Inventory; Fenson et al., 1993): Szagun, Gisela, Stumper, Barbara, & Schramm, Satyam Antonio (2009). *Fragebogen zur frühkindlichen Sprachentwicklung (FRAKIS) und FRAKIS-K (Kurzform)*. Frankfurt: Pearson.

Other than in the original FRAKIS we also asked reporters to underline words children might understand but do not (yet) say.

We asked that as many reporters as possible fill in the FRAKIS as well as the M-CDI, but this did not always happen. When we do have more than one report for the FRAKIS or M-CDI, we use cumulative scores that take into account the best coding for an item (as done in De Houwer, A., M. H. Bornstein & D. L. Putnick (2005). Assessing early communicative ability: a cross-reporter cumulative score for the MCDI. *Journal of Child Language*, 32: 735-758; see also: De Houwer, A. (2019). Equitable evaluation of bilingual children's language knowledge using the CDI: It really matters who you ask. *Journal of Monolingual and Bilingual Speech*, 1(1), 32-54).

a) For the BFLA families, there are FRAKIS and M-CDI data for 78 children at Wave1. At Wave2 there are FRAKIS and M-CDI data for 82 BFLA children.

b) For the ESLA families, there are FRAKIS data for 6 children and M-CDI data for 9 children at Wave1. At Wave2 there are FRAKIS data for 8 children and M-CDI data for 9 children.

Because of these low numbers the TODDLE TALK project focuses mainly on the BFLA children. (There are additional data for trilingual children but so far we are not focusing on those children either.)

Measure of Well-Being: the SDQ


As described on the SDQ website (http://www.sdqinfo.com/) the SDQ consists of 25 questions about a child's attributes, phrased positively or negatively. These are divided between 5 rating scales: one referring to emotional "symptoms" (e.g., "Often complains of headaches, stomach-
aches or sickness"), one about "conduct problems" (e.g., "Often loses temper"), one addressing hyperactivity or inattention or the lack of these (e.g., "Good attention span, sees work through to the end"), one querying peer relations (e.g., "Generally liked by other children"), and, finally, a prosocial scale (e.g., "Considerate of other people's feelings"). The combined results are assumed to yield a reliable measure of socio-emotional well-being (e.g., see Australian Institute of Health and Welfare (2012). Social and emotional wellbeing: development of a Children’s Headline Indicator. Cat. no. PHE 158. Canberra: AIHW). Norms exist for 10 countries. The SDQ is used in clinical assessments, in before-and-after intervention studies, in epidemiology, in screening for psychiatric disorder, and in research. Importantly, the SDQ can be used for all children, regardless of their mental health status.

The SDQ is designed for children aged 2 to 16, with a separate form for children aged 2-4. This is the one we used. Usually parents and/or teachers fill out the scales. (Children older than 11 may also fill out somewhat adapted scales themselves.)

The SDQ is available in 107 languages, including American Sign Language and British Sign Language (there are video versions). For some languages versions in different regional varieties are available. All these different language versions have been fully psychometrically validated. We used the SDQ in both English and German. In the TODDLETALK project parents, grandparents and child care workers or preschool teachers filled them out. Raters selected the language they wanted for filling in the paper form. We collected a total of 578 SDQ forms, each with 25 answers, yielding a total of 14,450 data points.

Scoring was done through the SDQ website and is straightforward.

**Demographic surveys to measure exposure information and more**

Dr. De Houwer developed several demographic online surveys. They were administered through SurveyMonkey. Mostly mothers filled out the surveys, but some fathers did so as well.

At each wave parents were asked about their family’s composition and the target child’s residences and longer (> week) trips, target child health, who took care of the child (both in and out of the home), the languages the target child understood and spoke, and the languages other family members spoke (and with whom, and in what circumstances).

Additional questions:

i. The Wave1 survey also included several questions querying parents’ attitudes towards each language, child bilingualism, and aspects of child language development.

ii. The Wave2 survey had questions about each parent’s language proficiency in any language they might know.

iii. The Wave3 survey asked questions about parents’ linguistic interaction with the target child and about how they felt if their child did not answer in the language they addressed the child in. Wave3 also had several little scenarios of children saying specific things in specific circumstances. Parents were asked to indicate to what extent their child resembled the sample children. Their answers are supposed to give a very broad picture of children’s level of language development in each language (it was impossible to test children directly; besides, there are no standardized instruments for 3.5-year-olds in both Polish and German that can measure their level of language development).

**Coding and data processing**

Most of the data have been coded and the analytic work has started (per May 2020).

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