
Like two peas in a pod - a twin case study of differences between TD bilingualism and bilingual SLI

Lisa-Maria Müller*^{†1}, Shula Chiat*², and Ewa Haman*³

¹University of Vienna (UNI VIE) – Universitätsring 1 1010 Vienna, Austria

²City University London – Northampton Square, London EC1V 0HB, United Kingdom

³University of Warsaw (UW) – Poland

Abstract

Twins with and without SLI provide a unique opportunity to investigate differences in language abilities independently of environmental differences, and this is particularly valuable for investigating differences in the language abilities of bilingual children. In this twin case study, linguistic and pragmatic differences between one typically developing (TDB) and one specifically language impaired (LIB) English-Polish bilingual twin are analysed. Both children were assessed in both their languages between the ages of 4;8 and 7;7 years, using tests of receptive and expressive vocabulary (EVT-2, BPVS-3, ZNO, OTS-R), sentence (SASIT and Polish adaptation) and nonword repetition tasks (NWR), receptive grammar (TROG-2), Theory of Mind Tests (TRM) and narrative measurements (MAIN), together with an assessment of nonverbal ability (Raven's).

It becomes apparent from both children's test performance that their dominant language shifted from Polish to English when they entered school, but this change was more prominent in the language impaired child. This finding highlights the importance of not only testing bilingual children in both their languages but also at various points in time as their performance might change from one language to the other.

Measures of accuracy in standardised tests show discrepancies between the two subjects, but additional qualitative analyses of the twins' performance seem to be important to further differentiate between the TD and the LI child. These analyses revealed important differences in error patterns, especially on lexical measures and sentence repetition tasks. In lexical tests, when TDB did not know words, he gave more non-responses or used circumlocution, while LIB used more code-switches in monolingual settings and often only provided the initial sound of a target item. In sentence repetition tasks many of TDB's sentences were grammatically correct, despite not being exact replicas of the target sentence. LIB, on the other hand, produced grammatically incorrect or incomplete utterances and regularly merely repeated sentence-final words.

Moreover, the twins' performance differed in regard to morphosyntactic knowledge, grammaticality, length and complexity of narratives and metalinguistic awareness. Notably, they also differed in strategic competence. More precisely, TDB's communicative strategies were

*Speaker

[†]Corresponding author: lisa-maria.mueller@univie.ac.at

more listener-focused and thus essentially more successful than LIB's, who used more code-switching in monolingual settings and tended to misconstrue his own knowledge for shared information when using circumlocution. In line with this difference, Theory of Mind tests revealed that TDB had a more advanced understanding of others' knowledge. Their divergent approach to communicative strategies and thus social communication accord with recent findings in the field of SLI (e.g.: Adams et al. 2012, Chiat & Roy 2013), which increasingly emphasise problems with this aspect of communication among children with language impairment.

This case study of bilingual SLI hence suggests that distinct error patterns, which become apparent in detailed qualitative analyses of performance on standardised measures, as well as divergent communication strategies, may help to accurately distinguish between typically developing bilingualism and bilingual SLI.

References

- Bialecka-Pikul, M. (2012). Test Refleksji nad Myśleniem TRM. Unpublished material. Kraków: Institute of Psychology, Jagiellonian University
- Bishop, D.V.M. (2003). TROG-2. Pearson Assessment.
- Banasik N., Haman E., Smoczynska M. (2011). Zadanie Powtarzania Zdań. Polish adaptation of SASiT. Unpublished material. Warsaw: Faculty of Psychology, University of Warsaw.
- Chiat, S. and Roy, P. (2013). Early Predictors of Language and Social Communication Impairments at Ages 9–11 Years: A Follow-Up Study of Early-Referred Children. *Journal of Speech, Language, and Hearing Research*, 56: 1824–1836.
- Dunn, L. M., Dunn, D. M., Styles, B., and Sewell, J. (2009). *British Picture Vocabulary Scale: 3rd Edition*. GL Assessment.
- Gagarina, N., Klop, D., Kunnari, S., Tantele, K., V'alimaa, T., Balinien, I., Walters, J. (2012). "MAIN: Multilingual assessment instrument for narratives". *Berlin: ZAS Papers in Linguistics*, 56.
- Haman, E. and Fronczyk, K. (2012). *Obrazkowy Test Słownikowy-Rozumienie OTSR*. Gdańsk: Pracownia Testów Psychologicznych i Pedagogicznych.
- Haman, E., & Smoczynska, M. (2010). *Zadanie Nazywania Obrazków ZNO*. Unpublished material, Warsaw: Wydział Psychologii, Uniwersytet Warszawski.
- Kiebzak-Mandera, D., Otwinowska, A., Bialecka-Pikul, M. (2012). *Zadania narracyjne: narracja i renarracja*. Polish adaptation of MAIN. Unpublished material. Warsaw: Faculty of Psychology, University of Warsaw.
- Marinis, T., Chiat, S., Armon-Lotem, S., Gibbons, D. and Gipps, E. (2011). *School Age Sentence Imitation Test (SASIT) – English*. Unpublished material.
- Smoczynska, M. 2005. *Test for Reception of Grammar – Polish translation*. Unpublished manuscript Kraków: Jagiellonian University.
- Raven, J. C. 2003. *Test Matrycy Ravena – wersja kolorowa*. (T. Szustrowa i A. Jaworowska, Trans.). Warsaw: Pracownia Testów Psychologicznych PTP.
- Szewczyk J. and Wodniecka, Z. (2012). *Polish Nonword Repetition Task*. Unpublished material. Warsaw: Faculty of Psychology, University of Warsaw.
- Szewczyk J., Wodniecka Z., Otwinowska A., Chiat S. (2012). *English Nonword Repeti-*

tion Task. Unpublished material. Warsaw: Faculty of Psychology, University of Warsaw.