
Identification of clinical markers of language impairment in Welsh-English bilingual children

Vicky Chondrogianni*¹ and Nerys John*²

¹School of Philosophy, Psychology and Language Sciences, University of Edinburgh (PPLS) – 3 Charles street, Dugald Stewart Building, Edinburgh EH8 3AD, United Kingdom

²Bangor University – Bangor University - Bangor -Gwynedd - LL57 2DG, United Kingdom

Abstract

Background: Despite extensive research on monolingual children with SLI (e.g. Leonard, 2014), little is known about language impairment in bilingual children (see Paradis, 2010 for an overview). In the absence of tasks in their first language or bilingual norms, bilingual children are tested in their second language on tasks standardised with monolingual children, with the subsequent risk of misdiagnosis or failure of early identification. The absence of relevant assessment tools also has implications for measuring the efficacy of intervention. Despite Wales being the single official bilingual country in the UK, there is lack of assessments for children who have Welsh as their first language. Thus, little is known about the areas of Welsh grammar that could constitute markers of language impairment in Welsh-speaking children. The present on-going study aims to identify clinical markers of language impairment in Welsh-English bilingual children upon primary school entry by developing tests in their first language (Welsh).

Methodology: Participants: 30 Welsh-English bilingual 5-to-6-year-old children are currently participating in the study. Children are divided into groups on the basis of two parameters: (i) impairment status, that is typically developing (TD) children and children who have been identified with SLI, and (ii) age of exposure to second language (L2) English, that is simultaneous bilingual children (2L1), and sequential bilingual children with first language (L1) Welsh and L2 English. In the present paper, we will present the results from 15 TD sequential bilingual Welsh-English children (L2-TD) and 15 Welsh-English bilingual children with SLI (2-SLI). Children are matched on age and they are attending the same type of Welsh-medium schools in North Wales.

Materials: A battery of standardised and non-standardised assessments is administered in both Welsh and English to assess children's language and cognitive abilities including vocabulary, comprehension and production of grammar, production of morphosyntactic structures and nonword repetition in English and Welsh. In English, vocabulary is tested using the British Picture Vocabulary Scale III (BPVS-III, Dunn & Dunn, 2009), comprehension and production of morphosyntax are tested using the Concepts and Following Directions (CFD), the formulating sentences (FS) and the sentence repetition (SR) subtest from the CELF Preschool 2 (Wiig et al, 2006). Children's nonword repetition is tested using the Children's nonword repetition by Gathercole & Baddeley (1990). Children are also administered the Test of Early Grammatical Impairment (TEGI, Rice & Wexler, 2001) which examines tense (third person -s and past tense -ed), a clinical marker for language impairment in English,

*Speaker

as well as irregular past tense verbs. The same linguistic areas and structures are also tested in Welsh using battery of novel tasks. Children’s Welsh vocabulary is tested using the Prawf Geirfa (Gathercole & Thomas, 2007). Comprehension of morphosyntax was assessed using a Welsh adaptation of the CELF Preschool 2. Production of morphosyntax is tested using a novel Welsh SRep task developed within the COST-Action (XXX, Davies & Thomas, 2013). As part of this study we also developed a task on tense and plural formation in Welsh. These two phenomena were chosen for the following reasons. Tense has been shown to be a clinical marker in English-speaking children with SLI, who omit inflection on lexical verbs. In Welsh, however, inflection is richer than in English and quite regular across the paradigm. Inflection is overtly realised on past tense lexical verbs but not on present tense verbs. Furthermore, Welsh has a very small pool of only five irregular past tense verbs. Following research on other morphologically rich languages (e.g. Rothweiler et al., 2012), we want to establish whether tense and agreement are also clinical markers in Welsh. Welsh also has a very intricate plural formation paradigm with a combination of regular and irregular concatenation rules. Therefore, plural formation on nouns may be able to highlight rule vs. rote learning strategies in children with SLI (van der Lely & Ullman, 2001) more felicitously than tense (verbal morphology). Children were also administered the COST MAIN narratives task in both languages (Gagarina et al. (2012). A parental questionnaire examining the history of language and other learning disorders in the family and the individual was also used.

Results and further implications: Preliminary results from English point towards differences in terms of phonological working memory and SRep in TD and SLI children. An important finding of the present study is that the third person -s component of the TEGI cannot be used as a diagnostic tool with Welsh-English bilingual children, as all children drop the -s inflection regardless of impairment status. This is explained as morpho-phonological transfer from Welsh, which does not realise inflection on present tense lexical verbs. Preliminary results from Welsh also suggest a dissociation between the development of verbal and nominal morphology, with nominal morphology being more challenging than verbal morphology. The present results are discussed in light of theories of SLI and clinical implications.