The adaptation of MAIN to Danish

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This paper describes the process of adapting the Multilingual Assessment Instrument for Narratives (LITMUS-MAIN) to Danish and the use of MAIN in a Danish context. First, there is a brief description of the Danish language followed by details of the process of translating and adapting the MAIN manual to Danish. Finally, we briefly describe some of the research contexts in which the current and previous MAIN materials have been piloted and applied.

1   Introduction

The Multilingual Assessment Instrument for Narratives (LITMUS-MAIN, hereafter MAIN; Gagarina et al., 2012, 2015, 2019) was developed by members of COST Action IS0804, *Language Impairment in a Multilingual Society: Linguistic Patterns and the Road to Assessment*. The instrument aims to measure narrative skills among multilingual children, aged 3 to 10 years, who grow up with two or more languages, and also has older children and adults, as a target group. Since 2012, MAIN has been used in several languages and is also available in Danish, a Germanic language. MAIN is not yet norm-referenced, but can be used for evaluation and e.g. in a dynamic assessment context, as will be explained below. In this paper, we give a short description of the Danish language, the translation and adaptation process, and of how MAIN has been used in intervention and research in Denmark.

2   Brief description of the Danish language

Danish belongs to the group of Indo-European languages, more specifically the group of Germanic languages, and has many similarities with Swedish and Norwegian. The preferred

word order in Danish main clause declarative statements is the SVO (subject-verb-object) structure, and Danish is furthermore a verb second (V2) language, which means that the finite verb has to appear as the second element in a sentence. There is no overt agreement between the subject and the verb, and Danish does not allow pro-drop. Danish verbs are marked for tense (finiteness), but not for person or number. Being a Germanic language, some grammatical similarities are shared with e.g. English, however there are also several differences, for example regarding tense and aspect. For example, Danish has one absolute present tense form *hopper* 'jumps' whereas English has two *jumps* (present tense) and *is jumping* (progressive). This difference is also seen in the Danish past tense: e.g. simple past tense form *hoppede* 'jumped/was jumping' and pluperfect form *havde hoppet* 'had jumped'. Finally, Danish has a future tense marking which is constructed by use of an auxiliary marker, as in *vil/skal hoppe* 'will jump/is going to jump'. Aspect can be expressed through the use of e.g. locatives in conjunction with finite verbs, such as in *geden er ved at hoppe* 'the goat is jumping' (lit. 'the goat is by to jump'). Questions are constructed with *wh*-words (*hv*-words), but the word order is different from English, e.g. *hvorfor hopper hunden?* 'why does the dog jump?' (lit. 'why jumps the dog?') (Allan, Holmes & Lundskær-Nielsen, 2000). Compared to English, Danish has a more complex inflectional system for nouns and articles. Nouns have arbitrary gender, common gender or neuter gender, and are inflected for gender and definiteness, e.g. *ged-en* 'goat-COMMON.DEF' and *hus-et* 'house-NEUTER.DEF'. There are several linguistic devices for creating cohesion (connectives) and in Danish narratives are often initiated with a connective, such as a temporal adverb, e.g. *så* 'then', additives *og/og så* 'and/and then', causal *men* 'but' etc. When an adverb or a topicalized object initiates a main clause, the word order is inverted to VS, such as in *så hopper han over geden* 'then jumps he over the goat', i.e. 'then he jumps over the goat', or *så hopper han ikke over geden* 'then jumps he not over the goat', i.e. 'then he does not jump over the goat'.

Turning to the semantics of Danish, it has a large variation of mental state words and, compared to English, several Danish mental state words have a more restricted meaning, e.g. 'want', which can be translated into Danish as *vil*, *gide* and *bede om*, and 'think', which can be translated as *tro*, *synes*, *mene* and *tænke*. (Knüppel, Steengaard & Jensen de López, 2007). In the Knüppel, Steengaard and Jensen de López (2007) study they showed that Danish preschool children use this variety of mental state terms in spontaneous dialogues with their parents.

3   Translation and adaptation of MAIN to Danish

The translation and adaptation of the Danish version of MAIN manual took place in two phases. In the first phase, it was adapted from the original English version of MAIN (Gagarina et al., 2012) and here its guidelines for adapting MAIN story scripts to other languages were followed. The second phase of adaptation was carried out in 2020, and for this, the revised English version (Gagarina et al., 2019) was used. A native Danish-speaking Masters student in psychology at Aalborg University's Clinic for Developmental Language disorders, who was also familiar with preliminary versions of the materials, translated MAIN from English to Danish. The final

translation was then carried out and checked for consistency and adequate concepts by Kristine Jensen de López. The 2020 revision was also carried out by Kristine Jensen de López, and, in this revision, all changes in the English revised version were included and the full MAIN document was revised for overall consistency in descriptions and in use of concepts. This final version was then commented on by Hanne B. Søndergaard Knudsen, who also participated in some of the piloting of the previous version of the materials.

There were several challenges, particularly in the adaptation of English concepts into Danish, and in the sections regarding the description of MAIN and how to use it. For example, the English concept of a narrative does not easily translate directly to Danish, especially in a way that makes sense in the context of assessment, research and practice and for the actual children that are assessed. In Danish, the word 'narrative' can be translated as *narrativ*, *fortælling*, or *historie*. Applied to these Danish words, Google Translate proposes that *fortælling* is equivalent to the English word 'story', with 'narration' and 'tale' as further options. *Historie* is the common Danish word used by children in reference to reading a book or telling a story. It is clear that we cannot rely on Google Translate in the adaptation of MAIN, as one needs to carefully consider the meaning that the different concepts have in their everyday usage.

In the first adaptation of MAIN to Danish (2012), the decision was made to keep as close to the English version as possible. All instances of the word 'narrative', including in the title of MAIN, were translated as '*fortælling*'. In the 2020 revision of MAIN, 'narrative' was translated as *fortælling* or *historie* depending on the specific context: for instance, *fortælling* is used in the title, but *historie* is often used in descriptions of usage and in the materials. This decision was an attempt to make the material more accessible to practitioners and to bring it into line with Danish children's understanding of the concepts. The Danish word *historie* is acquired by children very early in development, it is frequently used by parents and adults in child-directed speech, and it is the word applied for a book reading activity, so it is more consistent with the everyday language usage and the meaning expressed in MAIN.

The concept of 'assessment', which also appears in the title of MAIN, is also not straightforwardly translated into Danish. Among the suggestions for the translation of the English word assessment were *vurdering*. However, *vurdering* can also convey additional and sometimes negative meanings, such as to give an understanding, critical appraisal or estimate of something. The Danish words commonly used by professionals (psychologist, SLTs, doctors) when carrying out an assessment are *undersøgelse* or *udredning*. Again, the lack of clear translation equivalence made it difficult to select the most appropriate Danish word for 'assessment'; and ultimately the word *undersøgelse* was chosen, as it is the most commonly used term for procedures including language testing and/or testing for cognitive abilities.

4 Piloting of MAIN in Danish

The piloting and use of the materials forming part of the Danish MAIN manual started already in 2009 and were in many senses premature with regard to fully integrating the final versions of MAIN. This work mainly took place within psychology student projects, PhD projects, and

other ongoing research projects with children with SLI and typically developing children, and were supervised by Kristine Jensen de López. In order to maintain procedural consistency within ongoing projects, the majority of the data that has been collected up to date has continued to rely on the very preliminary version of the Fox, Bird and Fish story used in the Gülzow & Gagarina (2007) study (the picture materials appear in Gagarina et al., 2012, figure 17: BG-3. (08-02-2011), p. 33) as well as previous versions of the stories in the MAIN, e.g. Baby Goat (telling and comprehension). The story plot in the Baby Goat story was adapted from the original Fox, Bird and Fish story, so these plots can to a certain extent be compared. Within the PhD projects (Sundahl Olsen, 2013, Clasen, 2014), school-age children with SLI and control groups of typically developing children have been assessed with the Fox story, as well as a large group of preschool monolingual and bilingual children (Jensen de López, 2012, Jensen de López & Clasen, 2013). All children were tested in Danish only. Finally, a pilot project has been carried out with bilingual Danish-Faroese children, as discussed later in this paper.

In summer 2011, the Aalborg University Children's Clinic for Developmental Language Disorders was initiated by the first author, and parts of the MAIN assessment battery are used in the clinic. At this early stage, the MAIN manual had not yet been developed. The Children's Clinic also offers dynamic assessment, which includes narrative assessment, and for these assessments the final materials from MAIN are used. Assessments have so far mostly included monolingual children; however, a few bilingual children have also occasionally been referred. All children at the clinic are school-aged and supervision is carried out by both authors, who also participated in the COST Action IS0804.

The instructions used for the clinical assessment are the following: the child is shown all the pictures in a vertical line, then the child looks at the pictures and is provided time to identify what happens in the story, the pictures are gathered in one pile and then laid down on the table one at a time, and the child is asked to tell the story. Finally, the child is asked the 10 comprehension questions in MAIN. For the purpose of scoring, the narratives are transcribed, story structure, internal state terms, comprehension and Mean Length of Communication Units (MLCU) are calculated and evaluated (Gagarina et al., 2012, 2019). As mentioned earlier, the narrative materials from MAIN, e.g. the Baby Goat and Cat narrative, are occasionally used in a dynamic assessment setting.

Generally, the MAIN narratives are important in daily assessment. The scores are integrated and compared with other test scores, such as standardised and dynamic results, in order to plan intervention and pedagogical recommendations for a specific child. In conjunction with other tests, the narratives can also provide an impression of whether a given child has skills in theory of mind such as understanding intentions and perspectives and therefore possess a basic foundation for mutual communication (Gagarina et al., 2012). The narratives inform us of the extent to which a child can express ideas and messages in social settings, which is considered essential to well-being and academic achievement in school.

Danish piloting of the narratives in a context more consistent with the original purpose of MAIN, namely to test bilingual/monolingual children in both (all) languages, was carried out as part of a Masters' thesis in psychology (Hansen, 2014), supervised by the first author. For this small study, the 2012 version of the Danish MAIN was used. Fifteen Danish-Faroese

bilingual children living in Denmark, aged 4 to 8 years (eight boys and seven girls), participated in the study (Hansen, 2014). The MAIN materials that were used consisted of the telling and retelling materials. For telling, the Baby Bird and Baby Goat stories were used in both languages and for retelling, and the Cat and Dog stories were used in both languages. The children also responded to the comprehension questions. The results have only been analysed preliminarily; however, it seems that the children performed slightly better in Faroese than in Danish for both telling and retelling. Interestingly, the children did not produce references to goals or to inner states in any language or in any of the story formats. There was also some individual variation in the responses to the comprehension questions. Since these results are very preliminary, we are not able to draw conclusions from them yet. We hope to obtain future research funding in order to pilot the latest version of MAIN with Danish-speaking bilingual children.

To summarize, MAIN has been adapted to Danish through two processes, in 2012 and in 2020. However, the piloting and usage of a previous version of one of the stories (the Fox story) that motivated the development of the MAIN materials started already in 2009, and has formed the bases of Danish Bachelor, Masters and PhD projects. Since 2011, the MAIN narratives have played an important role in assessments with children with developmental language disorders, hearing-loss, autism and attention deficits at Aalborg University Children's Clinic for Developmental Language Disorders. The clinic's assessments are standardised as well as dynamic, and results from the narratives are integrated with results of standardised tests to form the basis of pedagogical recommendations for the children referred to the clinic.

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