Serbian version of the Multilingual Assessment Instrument for Narratives (MAIN)

Ljiljana Jeličić

Institute for Research and Development "Life Activities Advancement Center", Institute for Experimental Phonetics and Speech Pathology

Ivana Bogavac

Institute for Research and Development "Life Activities Advancement Center", Institute for Experimental Phonetics and Speech Pathology

Alexandra Perovic

University College London

This paper provides the background to the process of translation and piloting of the Serbian version of the Multilingual Assessment Instrument for Narratives (LITMUS-MAIN), *Multilingvalni Test za Procenu Narativ*a (MTPN). Our review of the sparse research literature on Serbian children's narrative abilities reveals a need for a well-designed narrative instrument, which will enable researchers and practitioners to assess the production and comprehension of narratives in children of a wide age range, typically and atypically developing, monolingual and bilingual, crucially allowing for cross-linguistic comparisons. We encountered two kinds of challenges during the process of translation and adaptation of the instrument from English into Serbian. The first concerned the lack of established Serbian technical terminology needed to describe test administration to the future users of the test: researchers and practitioners working in different disciplines such as linguistics, psychology, Speech and Language Therapy. The second challenge concerned the translation of linguistic structures required to produce a successful rendition of the narrative: in contrast to English, but in line with other Slavic languages, Serbian relies heavily on verbs marked for perfective aspect in story-telling. Our discussion of preliminary data from four Serbian monolingual children, aged 5;5-10, demonstrates that MTPN is a successful tool in assessing narrative abilities in children acquiring Serbian.

Ljiljana Jeličić, Ivana Bogavac & Alexandra Perovic

1   Introduction

The Language Impairment Testing in Multilingual Settings – Multilingual Assessment Instrument for Narratives (LITMUS-MAIN, hereafter MAIN) is a new instrument developed to assess the production and comprehension of narratives of multilingual children (Gagarina et al., 2019). The child's ability to comprehend, tell or retell a story is assessed relying on a sequence of pictures accompanying each of the four stories, carefully created to be age-accessible and culturally appropriate across languages and cultures. First published in 2012 (Gagarina et al., 2012), it has been used with over 500 children, speakers of 15 languages. The latest version from 2019 is being adapted into over 60 languages, and for the first time, it includes Serbian. Serbian is the official and majority language in Serbia, and one of the recognized official or minority languages in the Western Balkans: Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia, and Kosovo. It is also used amongst the large Serbian diaspora, from North America and Europe to Australia and New Zealand. While we have no definitive numbers, the consistently high emigration rates point to a large number of Serbian-speakers worldwide: just between 2012 and 2016 around 245,000 people left Serbia (the International Migration report, OECD, 2018). The importance of the MAIN enterprise cannot be overestimated: being able to use the same instrument and to compare data from speakers of different languages who are growing up in different socio-cultural contexts has the potential to revolutionize the fields of bilingual language acquisition research and clinical practice, as well as improve access to intervention for vast numbers of children in different corners of the globe.

In the following sections, we give an overview of the sparse research and clinical literature on the elicitation of narratives in Serbian, emphasizing the need for the current instrument. We then describe the process of translation and piloting of Serbian MAIN with four children, two typically developing (TD), aged 5;5 and 10;6 and two with previous diagnoses of dyspraxia and articulatory difficulties, now resolved, aged 6;8. We discuss the challenges that arose during the translation and adaptation process: the first being the technical terminology employed in the instructions on administering the task, and the second the linguistic structures needed to produce a successful rendition of the narrative but which differ in English and Serbian. In the discussion of relevant linguistic structures, we focus on the morphological marking of the perfective vs. imperfective aspect on verbs, and the use of determiners in the article-less language such as Serbian. Finally, we discuss examples of representative structures from our translation of the stories used in the narrative elicitation and give a brief overview of the results of the four children with whom two stories from Serbian MAIN were piloted: the story 'Cat' in the telling mode and the story 'Dog' in the retelling mode. The section on future directions concludes the paper.

2   Background: Instruments eliciting narratives in Serbian

There is very little research examining children's narratives in Serbian in particular, and children's language skills, in general. To assess children's language production and

comprehension, Speech and Language Therapists (SLTs) in Serbia use one of two instruments developed for screening for language impairment in monolingual Serbian children, neither of which have been standardised, and which are rarely used in research. The first is the Test of Picture Description Abilities (*Test za ispitivanje sposobnosti opisivanja slika*), a subtest from a larger language assessment battery (Vasić, 1993), where a child is asked to describe a single picture. This task was used with 53 typically developing (TD) children and 43 language-impaired children, aged 3;11-6;11, in the study by Čabarkapa, Punišić, Subotić and Čović (2006), and with a sample of 77 older TD and language impaired children, aged 11-14, in Vuković, Avramović and Vuković (2013). The language samples produced by the participants in these studies were descriptions of a single picture; no narratives were produced. The second test used by SLTs in Serbia is the Comic Strip Story ('*Strip priča*'), again a part of a larger assessment (Vladisavljević, 1997). This instrument is more suitable to elicit narratives as it involves a sequence of four pictures in the form of a comic strip, where the child is required to tell the story based on the pictures, without any model given. Jeličić Dobrijević (2011) elicited narratives from 30 TD children aged 3;6-4;6, which were compared to 32 children of the same age born to women with high-risk pregnancies.

While the above studies (all published in Serbian) focused primarily on atypically developing children, a recent study published in English used the method of narrative elicitation to investigate the acquisition of aspectual distinctions in Serbian TD children (Savić, Popović & Anđelković, 2017). The ability to correctly mark temporal relations, as encoded by tense and aspect, is crucial in producing successful narratives. Thirty children, divided into three age groups with each group consisting of 10 children with the mean ages: 3;2 (three years; two months), 4;1 (four years; one month) and 5;1 (five years; one month), were asked to describe events presented in short video clips that featured two or three protagonists involved in some amusing actions (e.g. an elephant baking a birthday cake, a mouse unintentionally destroying the cake). Even though the narratives produced by the children (and adult controls) were relatively short (around 40 words on average, as per the sample narratives provided in the published paper), the increase in the structural complexity of the narrative was evident: while the youngest children needed much prompting, the story-telling abilities of the older children were similar to those of the adults. The focus of the study however was children's competence in their use of grammatical aspect (or viewpoint aspect, e.g. Smith, 1997) and lexical aspect, i.e. Aktionsart, in the context of the narrative. From the earliest age, participants appropriately used a higher proportion of perfective than imperfective verbs, and verbs referring to achievements, activities and accomplishments more frequently than verbs depicting states – both patterns in line with the findings on other Slavic languages (e.g. see Smoczyńska, 1989 for Polish, Gagarina, 2004 for Russian, and Hržica, 2011 for Croatian, a language closely related to Serbian).

While the studies reviewed above elicited some form of a narrative, relying on a range of methods and recruiting children of varying age ranges, their focus was seldom on the actual narrative abilities of these children. The development of narrative skills in both younger and older Serbian children, monolingual and multilingual, is yet to be researched in relevant detail.

An accessible and reliable instrument that can be used by researchers and clinicians alike is the first step towards this goal.

3 Translating and adapting MAIN into Serbian

The Serbian version of MAIN, *Multilingvalni Test za Procenu Narativ*a (MTPN), is the first instrument specifically designed to measure narrative abilities in monolingual and bilingual children to be used with the Serbian-speaking population, but can also be used to assess general language abilities. The instrument was adapted from the 2019 revised English MAIN version (Gagarina et al., 2019) in March and April 2020 by a team of Serbian-speaking professionals that consisted of two Speech and Language Therapists based in Belgrade, Serbia (first and second author), and a linguist based in London, UK, who is also a qualified Serbian/English translator (third author).

3.1 Technical terminology

We took great care in adapting the technical terminology employed in the instructions for administering the task, in order to ensure that it would be understood by both clinicians and researchers (e.g. linguists, psychologists): there is little contact between relevant disciplines in Serbia, thus the terminology commonly used in one field may not necessarily be known in another. The terms that proved challenging were those seldom used in Serbian SLT instruments while being familiar to researchers in the fields of psychology or experimental linguistics: *counterbalancing* of stimuli, *elicitation* of narratives, *shared knowledge*, *terms of internal states, mental state verbs*. To arrive at the most suitable translations, we decided to keep the terms as close as possible to the English forms (anglicised forms are commonly used in Serbian technical literature): for instance, 'elicitation' was translated as *elicitiranje*, 'counterbalancing' as *kontrabalansiranje*. The phrase 'terms of internal states' was again kept as close to the English original as possible: for 'term' we used *termin* rather than the Serbian *pojam*, though 'internal' was translated as the more literal *unutrašnji* since the anglicised *interni* is a medical term which would have caused confusion if used in the context of language assessment. To ensure administrators' full understanding of relevant terminology, each time one of these terms was used for the first time in the instructions, a detailed explanation was also provided in brackets.

Our translation of the technical terminology was verified by experts in the fields of linguistics (Boban Arsenijević, Karl-Franzens-University of Graz), psychology (Dušica Filipović Djurdjević, University of Belgrade), and lexicology (Ana Milenković, Serbian Academy of Sciences and Arts), all Serbian native speakers. For consistency purposes, the terminology was also checked and agreed with a linguist who was part of the team that had worked on the Croatian version of MAIN, Gordana Hržica, University of Zagreb. The two languages are closely related, and researchers are likely to use both versions when eliciting narratives in the countries of the Western Balkans. We anticipate that the introduction of the

new technical terminology in MTPN will help advance the field of SLT in Serbian and enable more efficient communication between researchers and clinicians.

3.2   *Tense, aspect and lack of articles in Serbian*

One of the issues that needed addressing was the variation in the expression of tense and aspect in Serbian versus English, especially evident in the context of the narrative. Most of the English verbs used in the stories referred to telic events and were marked for the simple past tense. These were translated into Serbian using the perfective form of the relevant verb in the periphrastic past tense.[1] In line with other Slavic languages, Serbian marks grammatical aspectual oppositions morphologically, and almost all verbs come in aspectual pairs (perfective vs. imperfective). The examples below, (1) from the story 'Cat' and (2) from the story 'Dog', involve perfective verbs: '*skočiti*' (jump), where the imperfective form is '*skakati*'; '*udariti*' (bump/hit), where the imperfective form is '*udarati*'. The example in (3) from the story 'Dog' involves a mental state verb, 'think', which can be ambiguous with regard to telic vs. atelic interpretation; however the choice of the perfective member of the aspectual pair, '*pomisliti*' (cf. imperfective '*misliti*'), in the Serbian translation leaves no room for ambiguity (see Gagarina, 2004, for the discussion of aspectual pairs and their acquisition in Russian).

(1)   *Mačka   je   skočila.*
       cat   aux-3SG-PRES   jumped-PFV-SG-FEM
       'The cat jumped.'

(2)   *Pas   je   udario   u   drvo.*
       dog   aux-3SG-PRES   hit-PFV-SG-MASC   in   tree
       'The dog bumped into the tree.'

(3)   *Pas   je   pomislio*
       dog   aux-3SG-PRES   thought-PFV-SG-MASC
            'The dog thought.'

The English progressive past, used to refer to incomplete past events, was translated using the past tense imperfective form, as in (4).[2]

(4)   *Jedan veseli   dečak se   vraćao   sa pecanja*
       one   cheerful   boy   se-refl-cl   return-IPFV-SG-MASC   from fishing
       'A cheerful boy was coming back from fishing.'

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[1] This past tense in Serbian is known as 'perfekt'. It is constructed using the present form of the aux 'be' (the clitic '*je*'), marked for tense, number and person and the perfect participle of the main verb, marked for number and gender. We decided against the use of the aorist tense, which used to be common in story-telling, but is now primarily found in literary texts.

[2] This is a reflexive verb, occurring with the reflexive clitic 'se': the auxiliary clitic 'je' is dropped.

Some of the follow-up questions were also made clearer by changing the tense or aspect used in the first version of the translation. For example, our original version of the follow-up question in the story 'Cat' included a literal translation from English: 'Why is the cat jumping?', using the imperfective form of the verb 'jump' in the present tense: '*Zašto mačka skače?* Following the piloting, the verb form was changed to the more appropriate: 'Why did the cat jump?' '*Zašto je mačka skočila?*', where the verb is both perfective and in the past tense.

The other issue that needed addressing in the process of translation was how to convey definiteness, specificity and partitivity in Serbian, an article-less language (see Ko, Perovic, Ionin & Wexler, 2007, for a discussion of these concepts in Serbian). Each context was carefully considered: the numeral 'one' was inserted when introducing a new referent (see 4 above) and when it was necessary to clarify that one item in the group of items is being referred to, e.g. (5) below (the sentence is accompanied by a picture which shows more than one fish):

(5) *mačka je   pomislila: "Želim   da   ugrabim   **jednu** ribu.*
    cat   aux   thought   want   comp grab   one   fish
    'The cat …thought: "I want to grab a fish".'

4 Piloting of Serbian MAIN: Preliminary results

The Serbian MAIN was piloted in March and April 2020 with four monolingual Serbian children, aged between 5;5 and 10;6. Two typically-developing children, a boy (aged 10;6) and a girl (aged 5;5) were administered the instrument in the telling and retelling mode for the stories, *Cat* and *Dog*. Two children on the SLT caseload of one of the SLTs, a boy (aged 6;8) with a diagnosis of dyspraxia and a girl (aged 6;8) with resolved articulatory difficulties, were administered two stories each, *Cat* in the telling mode, and *Dog*, in the retelling mode.

All four children successfully produced the narratives. While we do not discuss the macrostructure and microstructure of their narratives in this paper in any detail, it suffices to say that all children included all the relevant episodes provided in the model, using appropriate linguistic structures and vocabulary. We shall, however, touch briefly upon on the children's mastery of tense, and especially aspect, as this is one of the issues that has attracted much attention in the literature of Slavic acquisition.

As is expected for their age, none of the children produced utterances that were morphologically and syntactically ungrammatical. They produced an appropriate range of sentence structures, including subordinating and coordinating constructions, and used correct nominal and verbal inflection.

The children were competent in including the target story grammar categories such as goals, attempts, and outcomes in both the telling and retelling mode. However, they seemed to use terms describing emotional states (*angry*, *scared*) and perceptive states (*see, notice*) more frequently in the retelling mode compared to the telling mode, though the frequency of the use of perceptual states was generally higher. There were other effects of the mode of elicitation.

All four children produced more false starts and repetitions in the telling mode compared to the retelling mode. With regards to the length of their narratives, three of the four children produced stories considerably shorter than expected: the average length was around 70-80 words, compared to the model story of around 140 words. The length of the story was not affected by the mode, retelling vs. telling, with the exception of the 6-year-old boy with a diagnosis of dyspraxia, who produced a narrative that was over 20 words longer in the retelling mode. This could mean that children with language difficulties may be more attentive to the features of the model story provided in the retelling mode than TD children. Another possibility is that the presentation of the task in the same order for each child, telling followed by retelling, prompted the children to look at the pictures only and ignore the story told by the experimenter in the retelling mode. Of course, our sample of children is too small to make any meaningful generalizations, but the issue of the counterbalancing of the narrative mode certainly needs to be considered in future administrations of the task.

The children correctly used the periphrastic past tense and the correct event type to express relevant events/states, and correctly marked grammatical aspect (perfective/imperfective). The majority of the verbs (over 90%) used were in the perfective form, as is suited to the context of the narrative: the children regularly produced examples similar to those contained in the story texts given in (1) to (5) above. The remaining verbs were correctly used in the imperfective form, for instance 'live' and 'love', which were produced in the telling mode. A girl of 6;8 with the former diagnosis of articulatory difficulties used the verb 'live' when setting the scene of the story 'Dog' (6), and the verb 'love' when talking about the boy who lost his ball in the telling mode of the story 'Cat' (7).

(6)   *Nekada*   *davno*   *u*   *dalekom*   *selu*   *živeo*
     sometime   long-ago   in   far   village   lived-IPFV-SG-MASC
     je   *jedan*   *pas*
     aux-3SG-PRES   one   dog
     'A long time ago in a far-away village there lived a dog.'

(7)   *jer*   *je*   *jako*   *voleo*   *tu*   *loptu*
     because   aux-3SG-PRES   much   loved-IPFV-SG-MASC   that   ball
     'Because he loved that ball very much.'

There were few instances of inappropriate uses of tense or aspect. In one instance, the same 6-year-old girl used an imperfective past tense form of the verb 'eat' (*jeo*) in the context where the perfective form (*pojeo*) was more appropriate:

(8)   *pas*   *je*   *bio*   *srećan*   *zato*   *što*   *je*
     dog   aux   was   happy   because   comp   aux
     jeo   *kobasice*
     eat-IPFV-SG-MASC   sausages
     'The dog was happy because he ate the sausages.'

Our participants' generally competent use of tense and aspect marking is in line with the findings reported in Savić et al (2017) for Serbian, as well as the findings reported for other Slavic languages (e.g. Gagarina, 2004). However, more detailed analyses are needed, especially of the youngest amongst our participants, and those with previously diagnosed language difficulties, in order to establish the presence of more subtle patterns of microstructure difficulties in the narratives we elicited.

5   Concluding remarks

MTPN appears to be a successful tool in the elicitation of narratives in Serbian-speaking children. Our participants readily took part in the tests and produced narratives comparable to the age-matched peers in other languages. Their narratives were shown to provide valuable data for further investigations of different features of narrative macro- and micro structure in Serbian. We hope that this instrument can be standardized, normed, and validated in Serbian. We also hope that the existence of such an instrument in Serbian, a language that severely lacks modern language assessments, will stimulate further research, both theoretical and practical, which will provide important insights into the development of narratives in different populations of Serbian-speakers, and enable comparisons of relevant findings to other languages.

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