Narrative comprehension abilities in ‚left-behind' ethnic minority children in China

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Being able to produce and comprehend longer stretches of language at the discourse level is crucial in the social and academic life of a child. This article introduces a study with a focus on a particular discourse genre, namely story narratives. To appropriately evaluate the development of narrative skills, Natalia Gagarina from Leibniz-Centre General Linguistics, Research Area Language Development and Multilingualism and her colleagues from Sweden, Finland and Lithuania have developed an assessment tool (MAIN, the Multilingual Assessment Instrument for Narratives, Gagarina et al. 2012, 2015, 2019). MAIN was designed based on a multi-dimensional model of story organization. This model was depicted in real-life plots which are cross-culturally and cross-linguistically robust. Till 2021, it has been successfully adapted into more than 80 languages and widely used in testing children's narrative abilities (e.g. a special issue of *Applied Psycholinguistics*, 2016). Despite rich body of research examining children's narrative development (Bohnacker & Gagarina, 2020), thus far the scientific investigations are still heavily biased towards English and other Indo-European languages and the so-called WEIRD (Western, Educated, Industrialized, Rich, and Democratic) societies.

The current study departs from this tradition in two ways. First, it investigates the acquisition of a new non-Indo-European language pair, namely, Kam-Mandarin. Mandarin Chinese has the largest population of speakers in the world, yet child language studies featuring Mandarin still lag far behind English and other European languages (Kidd & Garcia, submitted). Kam, a minority language in China, belongs to the Tai-Kadai language family. There are approximately 3 million Kam ethnic minority people mainly residing in south and southwest China (National Bureau of Statistics, People's Republic of China, 2019). Second, the participants are the so-called ‚left-behind' bilingual children growing up in a unique social-communicative environment.

‚Left-behind' children are those who remain in the rural areas, as their parent(s) left them behind and went to cities for employment. According to the report of National Bureau of Statistics of China, UNFPA and UNICEF (2017), there are more than 40 million ‚left-behind' children in China, accounting for 30% of children living in the rural areas. These children are primarily taken care of by one or both of their grandparents, their relatives or family friends. Their parents usually visit home twice or only once a year. In most cases, the caretakers are low-educated and do not have the knowledge to take adequate care of these children and support language, psychological, cognitive and other important aspects of development. This means that there is often a lack of qualitative and deep interaction between children and caregivers.

Additionally, most ‚left-behind' children live in remote rural areas in poor provinces in Western and Southwestern China where they have limited access to resources and facilities for learning such as books, libraries, etc. The prolonged absence of parental care, the loss of solid family structure, poor living conditions and a lack of learning resources make these children more vulnerable to developmental, behavioural and psychological problems (see Wang & Mesman, 2015 for a review). Despite the large population of ‚left-behind' children, they in particular, their language abilities and development, have not received much attention.

In this study, we take a first step to fill in this gap by reporting on their narrative comprehension abilities using MAIN (Gagarina et al. 2012, 2015, 2019). MAIN assesses both narrative production and comprehension as reflected in macrostructure (the more global organization of a story) and microstructure (the more local level of using specific language elements). MAIN has been successfully translated into Mandarin (Luo et al., 2020) and Kam (Yang et al., 2020).

In the first stage, we address three goals:

1. to investigate the impact of the unique social-communicative environment on the development of children's narrative competence. We hypothesize that these ‚left-behind' children's development of narrative comprehension skills may be hindered by their non-conducive social-communicative environment.

2. to document these ‚left-behind' children's overall developmental profiles in narrative comprehension across ages, and examine how these developmental patterns exhibited are similar to and/or different from those reported in the literature featuring children growing up in an environment that is more conducive to their language development.

3. to provide a more in-depth analysis on these ‚left-behind' children's comprehension of specific components of macrostructure. Here we focus on „goals" (what a protagonist aims to accomplish) and a story character's internal states (IS, as initiating events and as reactions).

55 Kam-Mandarin ethnic minority bilingual children aged 5 to 9 participated in this study with 21 preschoolers, 14 elementary first graders, and 20 elementary third graders. All are ‚left-behind' children being taken care of by their grandparents who are native speakers of Kam. They acquired Kam as home language and their first language (L1) and acquired Mandarin as their second language (L2) at school as it was the medium of instruction from the age of three. All the children were recruited from a town in South China (see figure 1 for the Kam village).

Figure 1. Kam village

Children's narrative comprehension ability was assessed using the adapted Kam and Mandarin versions of MAIN (Yang et al., 2020; Luo et al., 2020). MAIN has four carefully designed stories (Cat, Dog, Baby goat and Baby bird). Each story has six pictures and consists of three episodes. Each episode describes the internal states (IS, e.g., angry, happy) of the story character(s). See figure 2 for an example of MAIN stories.

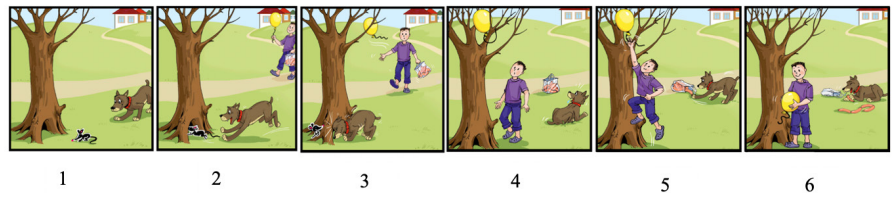

Figure 2. Dog story in MAIN

Ten comprehension questions related to a story were asked. The ten questions consist of three related to the understanding of goal, three associated with IS and the follow-up questions asking the explanation of previous answers to questions of IS, and one for the overall plotline of the story (see table 1). In addition, we conducted caregiver questionnaires to solicit information on a child's language background and home literacy activities.

Findings from the caregiver questionnaires indicated that 95% of these children assessed did not have any non-school textbooks at home and 5% of the children owned fewer than 5 non-school textbooks. All caregivers replied that they did not have any home literacy activities with their children, such as storytelling, shared reading, etc.

Table 1. Comprehension questions (taking Dog story as an example, cf. fig. 2)

Question	Example (Dog)
D1. Episode 1 Goal	Why does the dog jump forward? (picture 1-2)
D2. Episode 1 IS	How does the dog feel? (picture 3)
D3. Episode 1 IS rationale	Why do you think that the dog is feeling [answer D2]
D4. Episode 2 Goal	Why does the boy jump upwards? (picture 5)
D5. Episode 2 IS	How does the boy feel? (picture 6)
D6 Episode 2 IS rationale	Why do you think that the boy is feeling [answer D5]
D7. Episode 3 Goal	Why does the dog grab the sausages? (picture 5)
D8. ToM[1] IS	Imagine that the boy sees the dog. How does the boy feel? (picture 6)
D9. ToM IS rationale	Why do you think that the boy feels [answer D8]
D10. Overall plotline	Will the boy be friends with the dog? Why?

Findings from the narrative comprehension measures also indicated that these ‚left-behind' children's overall performance lagged behind their WEIRD peers. The ‚left-behind' children scored noticeably lower in overall score than (even some younger) bilinguals from the WEIRD countries. For example, the 5- and 7-year-old English-Swedish bilinguals scored at 67.8% and 75.6% accuracy, respectively in the same test (Bohnacker, 2016), but even the 9-year-old ‚left-behind' Kam-Mandarin bilinguals scored only at 69.4% accuracy.

Moreover, a more in-depth analysis on specific components (goal and IS) of macrostructure revealed differential competence on the two components. Comprehension of Goal was significantly better than IS in both languages across all three age groups.

Furthermore, their performance in comprehending Goals was comparable to WEIRD bilingual peers from the existing literature, but inferring IS was particularly difficult for these ‚left-behind' bilingual children who scored lower than the WEIRD bilingual children reported in the existing literature. These findings suggested that a lack of home literacy activities associated with low socioeconomic status may have hindered the development of narrative comprehension in these ‚left-behind' Kam-Mandarin bilingual children. The results are important for the linguistic theory and for the practical application, and they also have societal impact. They can help educators generate ideas for crafting syllabuses and programs to promote children's language and cognitive development.

[1] Theory of Mind (ToM) is the ability to attribute mental states to ourselves and others, serving as one of the foundational elements for social interaction.

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