

N.Eliseeva

University of Udine (Italy)

A.Marini

¹ *University of Udine, Udine (Italy)*

² *Claudiana - Landesfachhochschule
für Gesundheitsberufe Bozen (Italy)*

Comprehension of idiomatic expressions by Russian speaking preschoolers with typical development

*comprehension of Idiomatic expressions, acquisition of figurative meaning,
Russian speaking children, testing idioms, pre-schoolers*

Introduction

The ability to process figurative language is a key feature of human verbal communication. To date, it is still not clear at what age this complex skill matures in children exposed to different languages. When it comes to Russian, the comprehension and production of one form of figurative language, i.e., Idiomatic Expressions (IEs), has not been systematically studied yet in developmental linguistics and has mostly focused on error analysis [e.g. Tseytlin, 2000; Gridina, 2006].

The current brief report outlines the preliminary results of a larger project aimed at developing an Idiom Comprehension Task for Russian-speaking children which involves both children with Typical Development and children with developmental Language Impairments. Namely, we present here the results obtained by administering this task to a sample of monolingual preschoolers aged 4 through 7 with the aim of answering to the following questions: 1) can Russian-speaking preschoolers correctly interpret the non-literal meanings of IEs?; 2) Is there a difference between younger (i.e., 4-5 y.o.) and older (i.e., 6-7 y.o.) preschoolers in the amount of given correct, literal and wrong responses?

Materials and Methods

Participants

Fifty-six Russian-speaking preschoolers with typical development were included in the study (see Table 1). They formed 2 groups of monolingual Russian native speakers differing on chronological age (younger: 4 to 5 year olds; older 6 to 7 year olds) but matched on numerosity (N=28 in each group) and gender distribution (13 males in each group). None of the participants had a known history of speech and/or language impairments, mental retardation, hearing loss or pervasive developmental disorders. All participants were attending regular kindergartens in Omsk, Russia.

Table 1 – Age, numerosity and gender distribution of the two groups of participants. *Legenda*: M=Males.

Age-Group	Age	Number	Sex
Younger (4_5)	4.73 (.46) – Range: 4.04-5.11	28	M=13 (46.4%)
Older (6_7)	6.18 (.35) - Range: 6.00-7.02	28	M=13 (46.4%)

Materials

Forty IEs were selected from the dictionary of Russian idiomatic expressions (Fedorov, 2008) and were then checked for their presence/absence in the General Internet-Corpus of Russian language (GICR¹). A wide cohort of Russian-speaking adults (n=420) aged 20 to 60 years old participated to an online survey set out to assess the frequency of use of the selected IEs on a three-scores scale. The results of this survey were compared to those obtained with the GICR database. As a result, the 10 idioms with the highest frequency scores were selected for the experiment.

Methods

Children were asked to identify the correct non-literal meaning of a series of 10 IEs that were uttered by the examiner. For each item the child

¹ <http://www.webcorpora.ru/en/#sthash.n1hjGkYI.dpuf>

heard three potential explanations (one correct, one literal, and one overtly wrong) and was asked to choose the one that (s)he thought would be correct. For each correct answer children received 1 point for a maximum total score of 10.

Results and discussion

Potential age-related differences in the ability to identify the correct indirect meaning of the provided IEs were explored running one independent samples T-Test with age group (1. 4 to 5 years old; 2. 6 to 7 years old) as independent variable and three score obtained by each age-group at this task as dependent variables (i.e., Total Correct Answers, Total Wrong Answers, Total Literal Answers). Alpha level was set at $p < .017$ after Bonferroni correction for multiple variables (.05/3 dependent variables). This analysis showed the presence of a significant age effect on the production of correct answers ($t(54) = -2.994$; $p < .004$) but not for the production of Wrong ($t(54) = 1.852$; $p = .070$) or Literal Answers ($t(54) = 1.852$; $p = .070$); (see Table 2).

Table 2 – Descriptive statistics reporting the performance of the two groups of children at the Idiomatic Comprehension task. The asterisk (*) shows when the group-related difference was significant.

Age-Group	Correct Answers, mean (SD)	Wrong Answers, mean (SD)	Literal Answers, mean (SD)
Younger (4_5)	2.89 (2.1)*	2.57 (1.6)	3.36 (1.59)
Older (6_7)	4.54 (2.01)*	1.89 (1.1)	2.39 (2.25)

The results from this brief report suggest that at the age of 4 the ability to process the non-literal meaning of IEs is partially present but still not mature. On average these younger preschoolers provided 3 correct responses for the 10 items of the task. At this age, children tend to split IEs into independent parts, individual words, and interpret them literally. This trend to provide the correct interpretation of the IEs grows sensibly between 4_5 and 6_7

years of age. However, at 7 years old it is still not fully fledged, as suggested by the performance of the children which is in many cases still below chance level (fewer than 5 correct answers for the 10 items of the task). Of note, our data collected from school children (not presented here) show that this ability boosts when children begin to attend primary school. This is likely the consequence of two different factors, both biological and cultural. From a biological point of view, it is well-established that the ability to process non-literal meanings relies on a set of cognitive skills (e.g., executive functions) that allow children to inhibit the activation of the literal meaning of an Idiomatic Expression while processing its correct contextual indirect meaning. These executive skills are mostly implemented in neural networks organized in the frontal areas that tend to myelinate around the age of 8. Furthermore, from a cultural point of view, at School children tend to be exposed to complex forms of their language that are not always available at their homes and this likely prompts their acquisition of ever more words with the inclusion of Idioms. As a consequence, around the age of 8 children improve their ability to manage the inhibitory processes necessary to block the automatic access to the literal meanings of IEs while increasing their explicit knowledge of their indirect meanings.

References

Fedorov A.I. Frazelogicheskij slovar' russkogo literaturnogo jazyka: okolo 13000 frazeologicheskikh edinic / A.I.Fedorov. – Moscow: AST, 2008

Gridina T.A. Mehanizmy reinterpretacii i obrazovanija frazeologizmov v detskoj rechi Russkij jazyk: sistema i funkcionirovanie (k 80-letiju professora P. P. Shuby): materialy III Mezhdunar. nauch. konf., Minsk, 6–7 apr. 2006 g. : v 2 ch. / T.A.Grigina; redkol. : I. S. Rovdo (otv. red.) [i dr.]. – Minsk : RIVSh, 2006. – Ch. 1. – S. 292–296.

Tseytlin S.N. Yazyk i rebenok: Lingvistika detskoj rechi: ucheb.posobie dlya stud.vyisshih ucheb. Zavedeniy / S.N. Tseytlin. – M.: Gumanit. Izd.tsentr VLADOS, 2000. – 240 s.