Rural Bilingual Roma Children and Theory of Mind Competencies

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Abstract. Two age groups of Roma children (3;6-4;6 years old n = 20 and 4;7- 5;6 n = 20) from rural areas of Bulgaria were tested for understanding the classical Theory of Mind (TOM) task (False-belief) and the correlations with two language tests (*Evidentiality* and *Yes/No Questions*) were investigated. Coordinate with that the children were tested by means of the nonverbal Knox Cub Intelligent Test. The Theory of Mind tests and the language tests were conducted in both languages – L1 Romani and Bulgarian as their second language. The children attend kindergarten where they learn Bulgarian, but at home, they speak Romani as L1. All children were tested individually in a separate room by the researcher. A Roma woman member of the community and speaker of the dialect of the children tested them in Romani. All the results were analysed using ANOVA. The results from the study show that in the performance of both TOM tasks, the older children understand better the tasks and a high number of them have correct answers. The children performed equally well on the tests in both languages. The differences between Romani as L1 and Bulgarian as a second language are not significant. In the performance of the language tasks *Evidentiality* and *Yes/No Questions* there is a statistically significant correlation ($p < .05000$). There is also a correlation between L1 Romani and Bulgarian in performing the language tasks ($p < .340526$). However, there is no correlation between the language tasks and the TOM tasks. There are correlations between the variables *Evidentiality* Task Scores and *Yes/No Question* Task Scores (.4064); also between *Evidentiality* Task Scores and *Knox's Cube Nonverbal Intelligent Test* Scores (.3969); and between the *Yes/No Question* Task Scores and *Knox's Cube Nonverbal Intelligent Test* Scores (.5073). All correlations are only for the Romani language. The conclusion from the study is that the bilingual Roma children develop the Theory of Mind competencies around the age of 4;6 years old. Their language proficiency level in Romani and Bulgarian is basically equal, however when performing intelligence task the children are much better in their mother tongue. The children understand the Theory of Mind task in both languages in equal measure.

Keywords: *Theory of Mind, Roma children, bilingualism, evidentiality, Yes/No questions.*

Кючуков Хрісто. Двомовні ромські діти з сільської місцевості та теорія розуму.

Анотація. Дві вікові групи ромських дітей (від 3,5 до 4,5 років n = 20 та від 4 років 7 місяців до 5,5 років n = 20) із сільської місцевості Болгарії пройшли тестування на розуміння завдання класичної теорії розуму (ТОМ) (Помилкове переконання) і було досліджено кореляцію з двома мовними тестами (Доказовість і питання Так/Ні). Поряд із цим, дітей тестували за допомогою невербального тесту імітації куба Нокса. Тести з теорії розуму та мовні тести проводилися обома мовами – ромською як першою і болгарською як другою мовою. Діти відвідують дитячий садок, де вивчають болгарську мову, але вдома розмовляють ромською як рідною мовою. Усіх дітей дослідниця тестувала індивідуально в окремій кімнаті. Жінка-ромка, яка є членом спільноти та розмовляє діалектом дітей, тестувала їх знання з ромської мови. Усі результати аналізували за допомогою програми ANOVA. Результати дослідження засвідчили, що під час виконання обох

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завдань з теорії розуму старші діти краще розуміють завдання, і велика кількість з них дають правильні відповіді. Діти однаково успішно виконали тести з обох мов. Відмінності між ромською як рідною і болгарською як другою мовою незначні. Під час виконання мовних завдань на доказовість та питань Так/Ні існує статистично значуща кореляція ($p < 0,05000$). Існує також кореляція між ромською мовою як рідною і болгарською під час виконання мовних завдань ($p < 0,340526$). Однак відсутня кореляція між мовними завданнями та завданнями теорії розуму. Існують кореляції між змінними оцінки завдання на доказовість та оцінки завдання на запитання Так/Ні (0,4064); між результатами оцінки завдання на доказовість і оцінки невербального тесту імітації куба Нокса (0,3969) і між результатами тесту «Так/Ні» та результатами невербального тесту імітації куба Нокса (0,5073). Усі співвідношення встановлено лише для ромської мови. Висновок дослідження полягає в тому, що двомовні ромські діти розвивають компетенції теорії розуму приблизно у віці 4,5 років. Рівень володіння ними ромською та болгарською мовами загалом однаковий, проте під час виконання інтелектуального завдання діти набагато краще володіють рідною мовою. Діти однаково розуміють завдання теорії розуму обома мовами.

Ключові слова: *теорія розуму, ромські діти, білінгвізм, доказовість, питання Так/Ні.*

Introduction

According to Lillard (2006), the representatives of different cultures have different behavioural patterns and tend to explain their own behaviours pointing to different factors. The Chinese, for example, as well as Arab and Korean children, use more external factors then the US-American children. Describing life events, the American children aged 4 and 6 give more references to internal states of mind than the Asian children. They place a higher value on activities motivated by an important external source. Cross-cultural differences in the sequencing of Theory of Mind steps are also found between Australian and Iranian children (Shahaeian et al., 2011). In contrast to the the children from Australia, knowledge access was understood earlier than opinion diversity in children from Iran, consistent with the same collectivist culture's emphasis on acquiring knowledge. Still, very little research has been conducted in traditional communities where access to schooling and literacy is limited, such as the Roma community in Europe and how the Theory of Mind competencies as they develop help the children to prepare for schooling. The children's understanding of other people's thinking or emotions is part of their wider cognitive development. How do the children growing up in different cultural settings develop similar patterns in their Theory of Mind competencies?

Callaghan et al. (2005) report that cross-cultural study has mixed findings doing research on the Theory of Mind of young children, most possibly because of varying methods used in different cultures. The authors used a single procedure to measure false-belief understanding in five cultures: Canada, India, Peru, Samoa, and Thailand. The authors found a synchrony in the onset of mentalistic reasoning, with children crossing the false-belief milestone at approximately 5 years of age in every culture studied. The study discusses the significance of this synchrony for the origins of mental-state understanding.

In number of studies de Villiers and Pyers (2002), de Villiers and de Villiers (2000), de Villiers (2007) investigate the interface between language and Theory of Mind. The authors try to show a correlation between false-belief tasks and complement sentences. The language ability to deal with complex complements sentences and it is perhaps a prerequisite for false-belief understanding.

As an evidential language, Romani can express what is witnessed directly or indirectly, and what is just hearsay. Some authors Aksu-Koc et al. (2005); Papafragou & Li

(2001) have tried to find a correlation between Evidentiality and Theory of Mind in languages such as Turkish and Korean, which also have Evidentiality markers.

Together with culture the degree of bilingualism of the children also influences their reading comprehension, perspective-taking or performance of different cognitive tasks. Most research to date has conceptualized bilingualism from an all-or-none perspective, dividing participants into bilinguals or monolinguals with little room for variability (Surrain & Luk, 2017). Navarro et al. (2022) in a recent study show that neurobehavioural models of bilingual language use have begun to consider bilingualism as a dynamic trait that varies based on factors like sociolinguistic diversity background and culture (DeLuka et al., 2019). Researchers increasingly recognize the role of individual differences in bilingualism and take that variability into consideration in Theory of Mind studies.

Bilingualism has been traditionally conceptualized as something less valuable in comparison to monolingualism, especially when the bilingual speakers belong to traditional minority or migrant communities. The reason underlying that is that the minority or migrant languages often have a lower social prestige (Kyuchukov, 2007; Kyuchukov & de Villiers, 2009). A key question here is: does bilingualism help or interfere the bilingual children to develop earlier TOM when they have an L1 home language with lower social prestige? The connection between the Theory of Mind of bilingual children who speak a lower prestige L1 has not yet been on focus of proper investigation in the research literature. Another problem concerns children who live in small villages; they do not have the broader range of opportunities for communication of children living in larger towns and cities. The small village has limited possibilities for socialization and the main factor there for the socialization and cognitive development of Roma children is their extended family.

The aim of the present study is to shed needed light on how Roma children living in a small village learn the Theory of Mind and at what age they start to understand it. What grammatical categories help them to understand the Theory of Mind tasks? Could Roma culture, isolation from the broader non-Roma society, and the prevailing more traditional lifestyle function as a possible positive advantage – or could this be instead a source of interference for the children in acquiring the Theory of Mind competencies in both their languages?

Methodology

Bilingual pre-school Roma children living in a small village in southeaster Bulgaria were tested with two types of tasks:

- The classical Theory of Mind tasks*: Unexpected Content and Unseen Displacement task*;
- Language tasks: *Yes/No Questions* and *the Evidentiality task.*

The children were tested in two languages: Romani as L1 and Bulgarian as a second language (L2).

The participants in the study are divided into 2 age groups:

1 gr. 3;6- 4;6 years old – 20 children

2 gr. 4;7-5;6 years old – 20 children

The testing with the children was conducted individually in a separate room where the researcher and the teacher of the group were present. The testing in Bulgarian was done by the researcher, and the testing in Romani was conducted by a Roma woman, a member of

the community and speaker of the dialect of the children. The Roma woman was trained in advance about how to administer the tests.

Knox's Cube Nonverbal Intelligent Test – The children were also tested also with a non-verbal intelligence test where they had to repeat movements on cubes shown by the researcher. Children with four and more consequent errors were not included in the study evaluation. The children were tested once, and the instructions were given in Romani.

The children attend a kindergarten, where they learn the Bulgarian language, but at home they speak a variety of Bulgarian Romani. They grow up as 'successive bilinguals' (Grosjean, 2010).

Results

Theory of Mind Tasks

The results from the Theory of Mind tests are presented first.

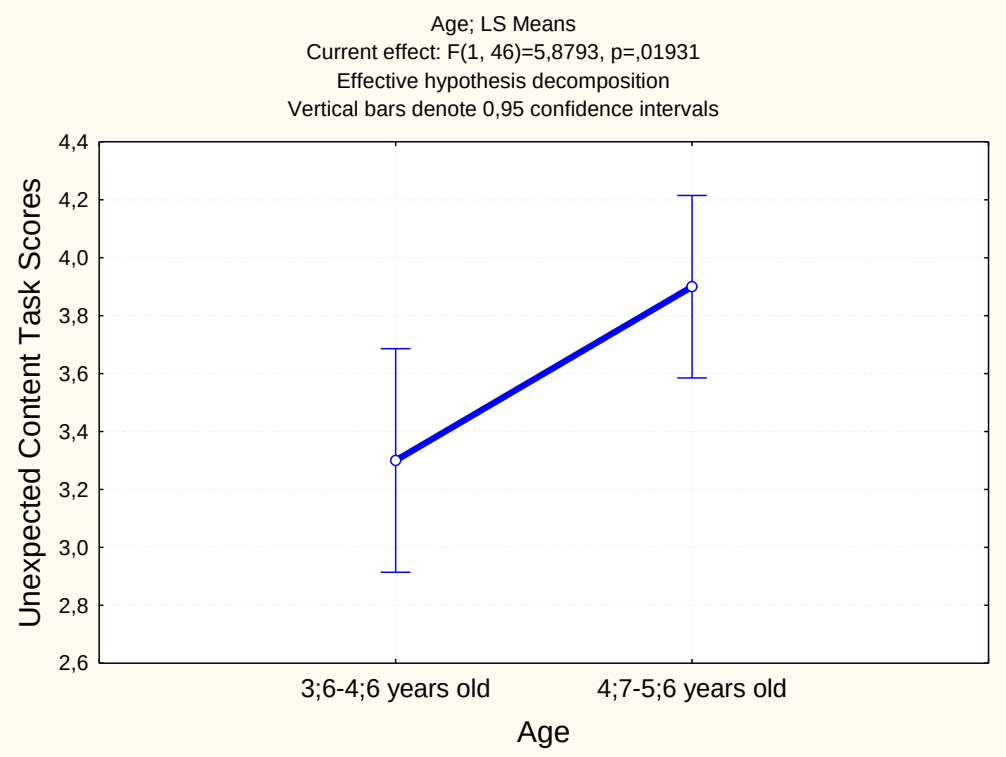
Unexpected Content task

In this task the children in the study are shown a box of chocolates. The child does not know what the box contains. The researcher asks the child what (s)he thinks is in the box and usually the children answer: "chocolates". Then the box is opened, the child sees that the box contains a pen. The box is closed by the researcher and then the child is asked: "What did you think first when you saw the box?" The next question: "What would your friend think is in the box if (s)he sees it?"

The first comparison in performing this task is between the age groups and the results are shown in Figure 1.

Figure 1

Impact of the factor Age on the dependent variable Unexpected Content Task Scores

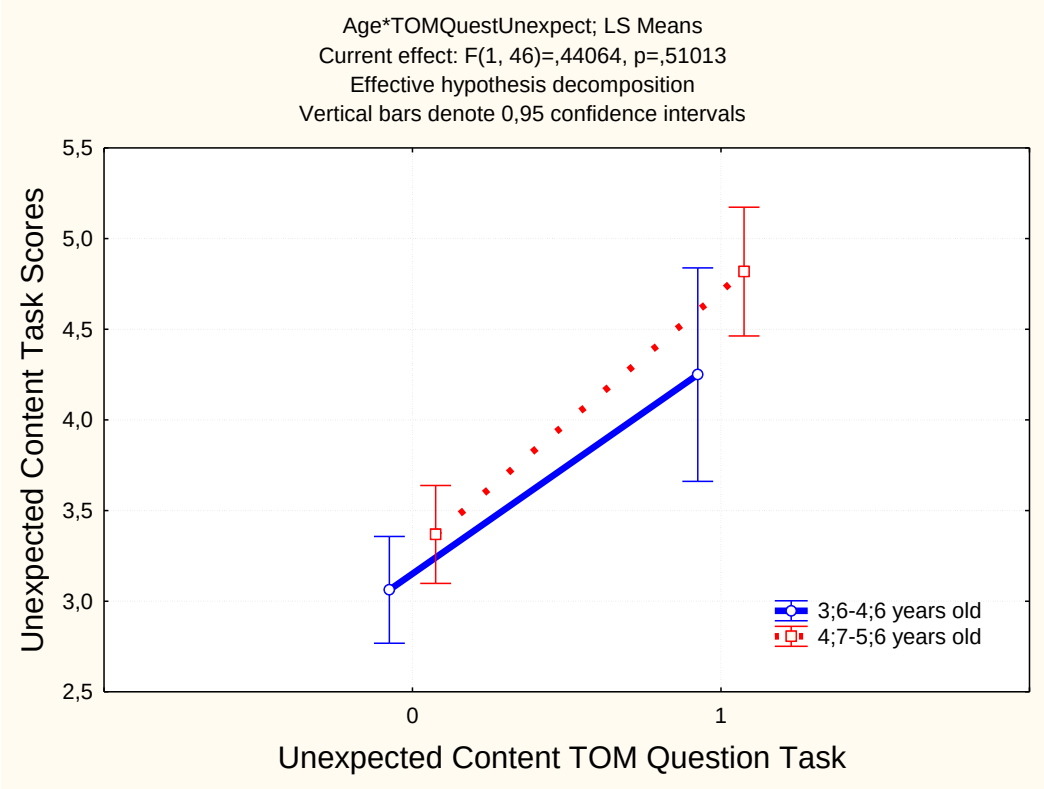


As can be seen from Figure 1, the older children in the study are much better than the younger children; the statistical differences are significant (p> .01): F (1.46) = 5.8793; p = .0193. The younger children between 3 and 4 years old do not remember that at the beginning when they first saw the box their answer was that the box contained chocolates. They answered that they said when they first saw the box, they thought there was a pen inside. The older children after the age of 4;0 years or 4;2 years remembered the content as they thought before opening the box and the difference after closing it.

In turning to to the False-belief task, the results are given in Figure 2.

Figure 2

Impact of interaction between the factors Age and Unexpected Content TOM Question Task on dependent variable Unexpected Content Task Scores



As we can see from Figure 2, the children from both age groups answer the TOM question – False-belief task almost in the same way. The older children answered the question correctly but the statistical analyses between the two groups show no significant differences F (1.46) = .44064; p = .51013.

The children were tested in two languages, Romani as L1 and their second language Bulgarian, the official language of the country. The results are shown in Figure 3.

Figure 3
Impact of interaction between the factors Age and Language on dependent variable Unexpected Content Task Scores

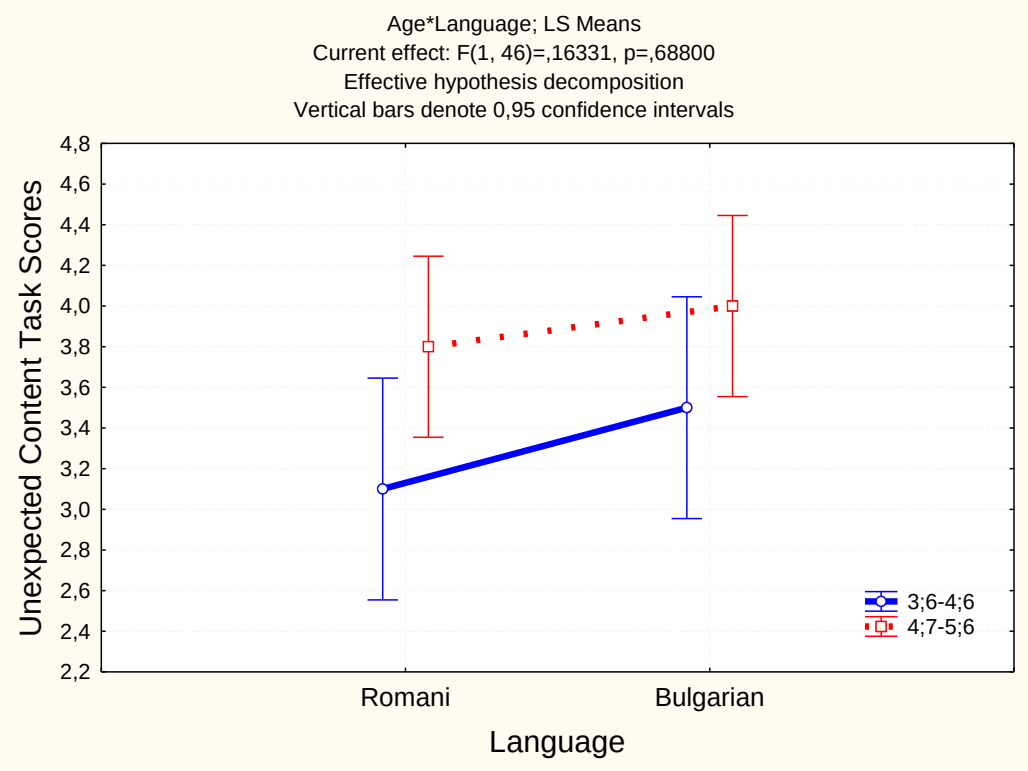


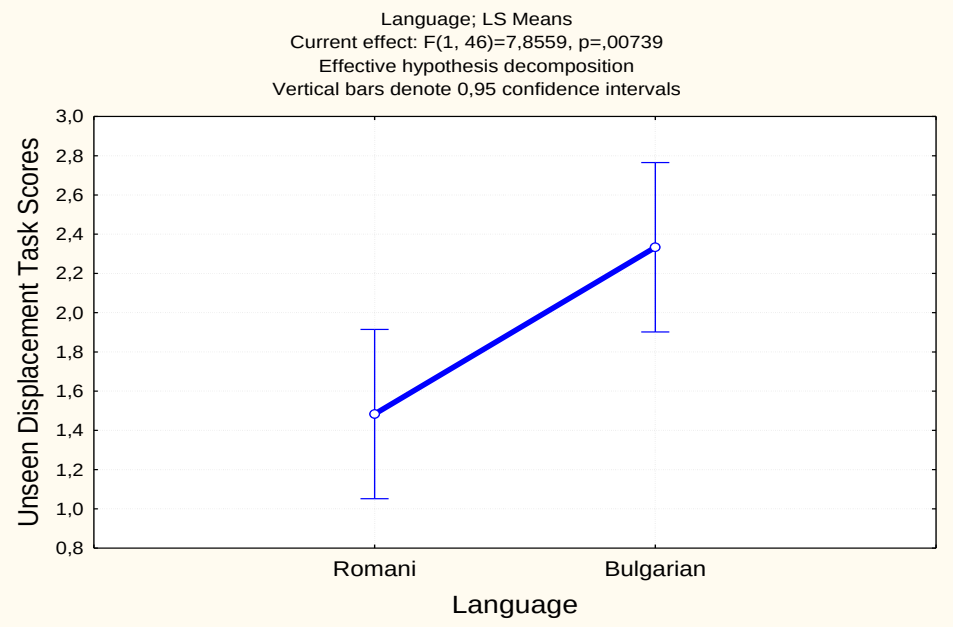
Figure 3 shows that the children perform this test in both languages at the same level. The statistical differences between the two languages are not significant, although the children 4;7-5;6 years old perform the test slightly better: F (1.46) = .16331; p = .68800.

Unseen Displacement Task

The second Theory of mind task is Unseen Displacement. The researcher shows the child two actors, a puppet dog and cat, who are friends. They have a ball. At the beginning the two actors put the ball in a basket acting together. One of them then leaves the scene, and the other who remains puts the ball in a second basket next to the first one. Then the first actor returns to the scene and the child is asked by the researcher: where is s/he going to look for the ball? The question is connected with the ability of the children to place themselves in the position of the other person and to take his/her perspective.

The results are given in the following figures. Figure 4 shows the impact of the factor language.

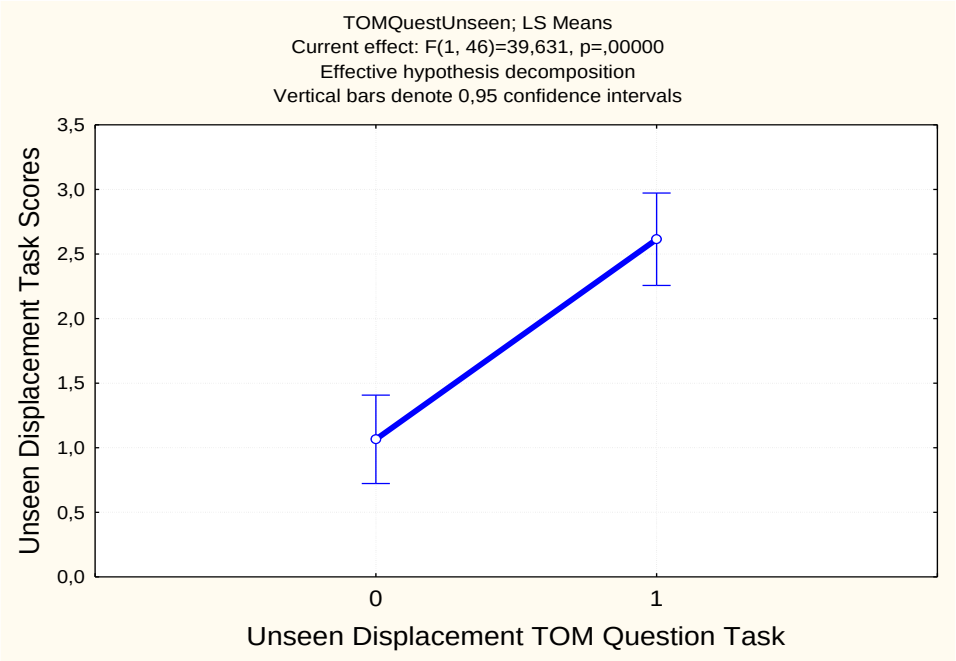
Figure 4
Impact of the factors Language on dependent variable Unseen Displacement Task Scores



As evident from Figure 4, the children are better in performing the task in Bulgarian, their L2. The age of the children does not show any statistically significant difference. However, the language utilized in performing the test is statistically significant: F (1.46) =7.8559; p =.00739; p> 001.

Most of the children answer correctly to the False-belief tasks and this is shown in Figure 5.

Figure 5
Impact the factor Unseen Displacement TOM Question Task on dependent variable Unseen Displacement Task Scores

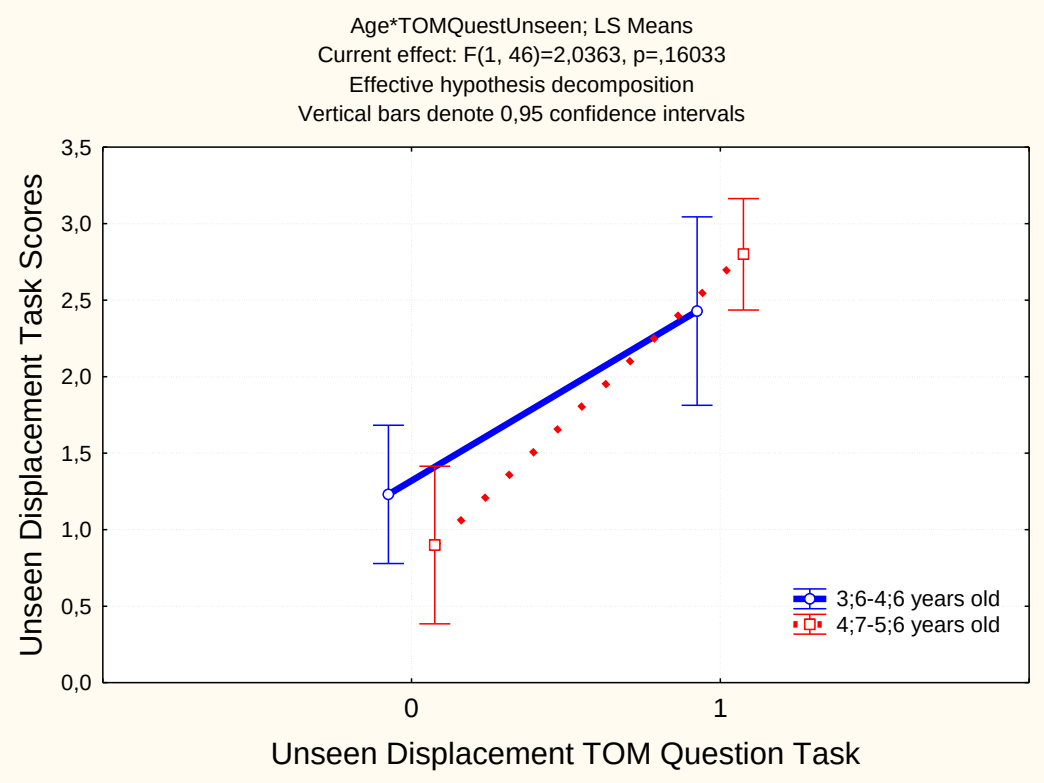


Most of the children from both groups answered the False-belief task correctly and the age did not have a statistically significant impact, which means that both groups performed the test equally well. However, the differences between the children who answered correctly or incorrectly are statistically significant: F (1.46) = 39.631; p = .00000.

If we look at the interaction between age as a factor and how the children gave an answer to the False-belief question, we see results in Figure 6.

Figure 6

Impact of interaction between the factors Age and Unseen Displacement TOM Question Task on dependent variable Unseen Displacement Task Scores



From Figure 6 it is clear that the younger children have far more errors answering the False-belief question, and the older children have a higher percentage of correct answers. The differences between the age groups are not statistically significant F (1.46) = 2.0363, p = .16033.

Turning to performance of the test by age groups and languages, results are given in Figure 7.

Figure 7

Impact of interaction between the factors Age and Language on dependent variable Unseen Displacement Task Scores

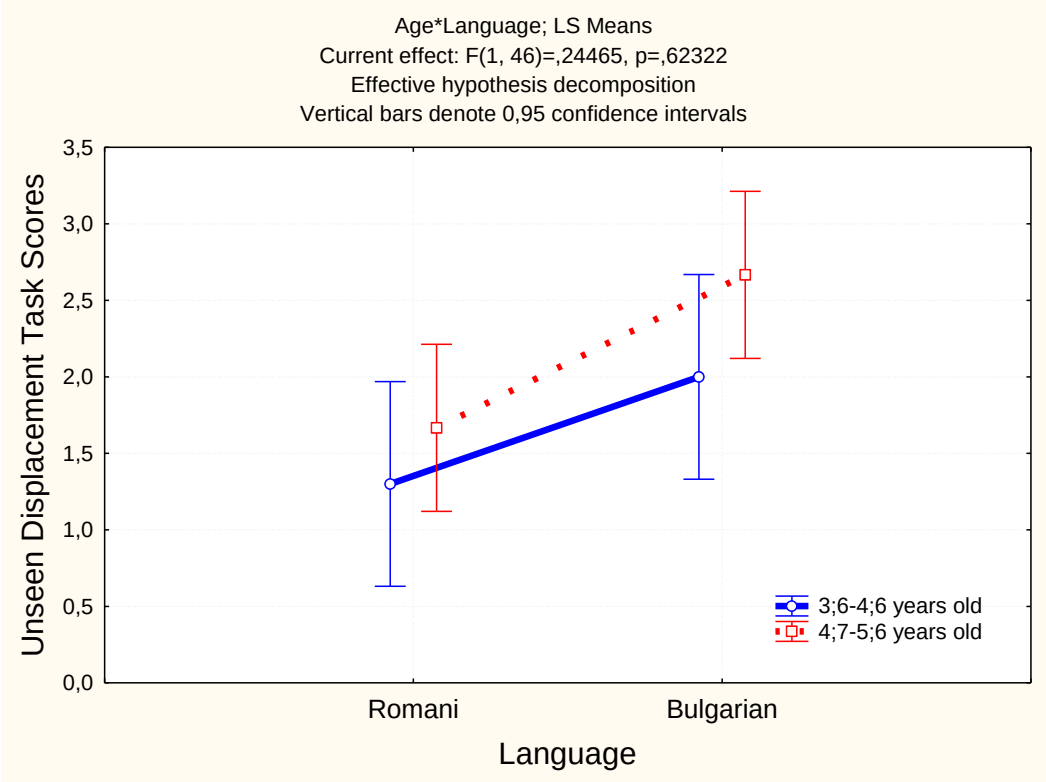


Figure 7 shows clearly that both groups of children perform the test in both languages almost equally well. The group of children 4;7-5;6 years old are better than those 3;6-4;6 years old, but the differences are not statistically significant. There are slight differences in the performance of the test in Bulgarian language, but those differences are not significant.

To summarize the performance of both TOM tasks, the older children understand the tasks better and a high number of them have correct answers. The children perform equally well on the tests in both languages. The differences between Romani as a home language and Bulgarian as a second language are not significant.

Let us now turn to how the children performed the language tasks.

Language Task

Evidentiality

The children are given five pairs of stories. The stories are told by two actors – a cat and a dog puppet. The stories are in past tense and in an evidentiality form (i.e., non-witnessed). The past tense story is told by the cat and the story in evidentiality form is told by the dog. Then the next time they are switched − past tense tale told by

the dog, evidentiality tale by the cat, − so as to avoid the association of one protagonist with one form of the story. The question put to the child is: Who saw what happened in the story?

Here are the results.

Figure 8
Impact of the factor Age on dependent variable Evidentiality Task Scores

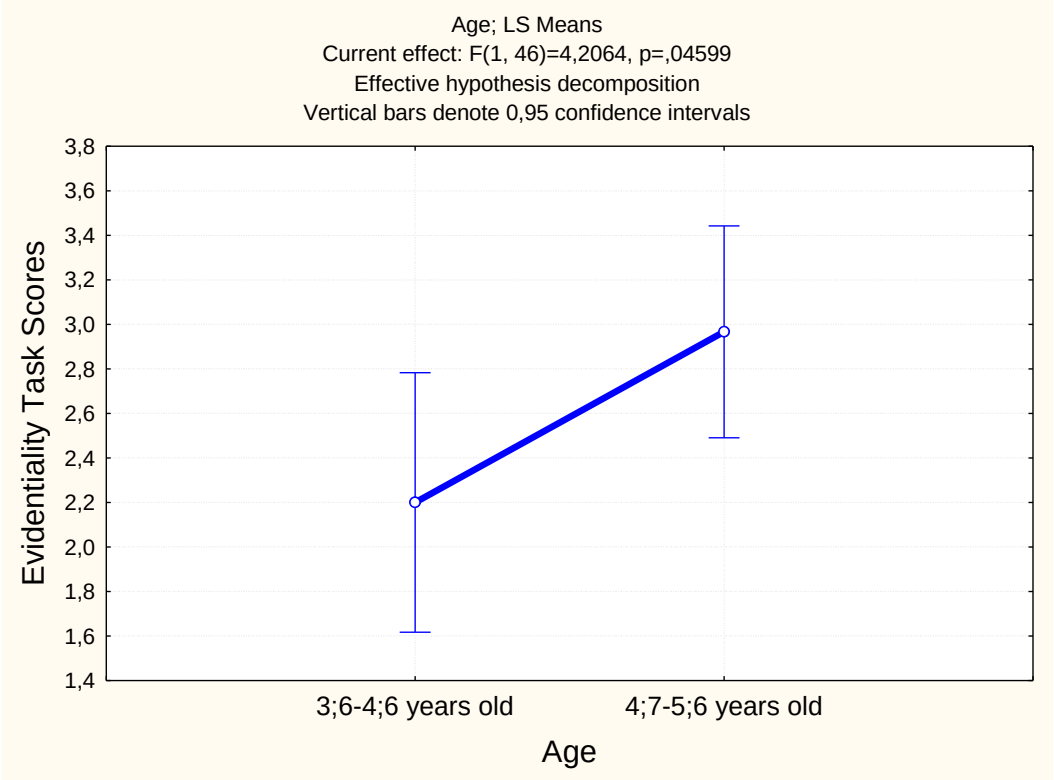


Figure 8 shows that the older children perform this task better and have much better results. The statistical differences are significant: F (1.46) = 4.2046, p = .04599. However, the language of the performance does not have any statistically significant difference. The children understand the stories equally well in both languages - Romani and Bulgarian.

What is the interaction between age and language in performance of the evidentiality task? This is shown in Figure 9.

Figure 9

Impact of interaction between the factors Age and Language on dependent variable Evidentiality Task Scores

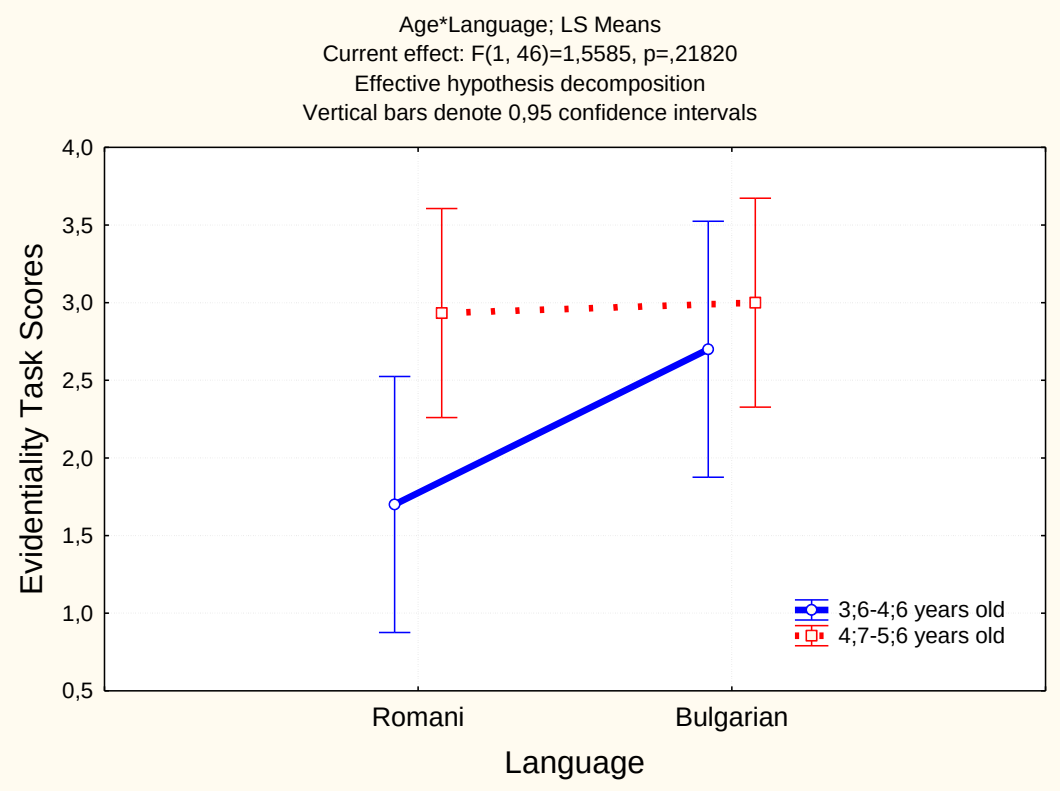


Figure 9 shows that the older children performed the task better than the younger children and although there are some slight differences in the performance of the task in Romani, the performance of the task in Bulgarian language is on the same level by both groups. The differences are not statistically significant F (1.46) = 1.5585, p =.21820.

Yes/No Questions

The children were shown eight pictures and for each picture was asked a wh-question with the verb *"say"*. Half of the questions were with positive answers and the other half with negative answers.

The results of the test are given in the following figure.

Figure 10

Impact of interaction between the factors Age and Language on dependent variable Yes/No Question Task Scores

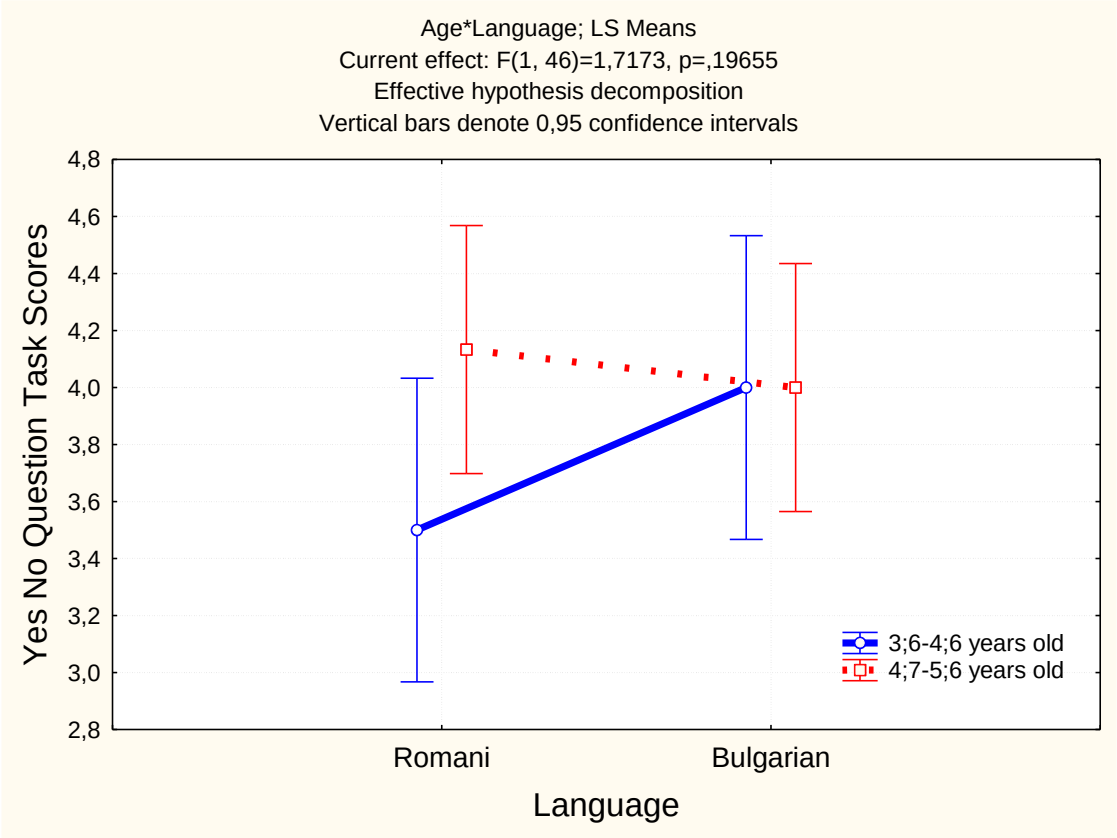


Figure 10 shows that there are no age and no language differences in the performance of this task. The task is equally well performed by both age groups and in both languages, Romani and Bulgarian. The differences are not statistically significant F (1.46) = 1.7173, p =.19655.

In regard to a correlation between the language tasks and Theory of Mind tasks, the results are presented in Table 1 (see Appendix).

From Table 1 is clear that there are corelations between the two language tasks – *Evidentiality* and *Yes/No Questions* – and the correlation is statistically significant (p < .05000). The corelations are in both languages, Romani and Bulgarian (.340526). However, there is no correlation between the language task and the Theory of Mind tasks.

Let us see how the children performed the Knox Intelligent Test, with results shown in Figure 11.

Figure 11
Impact of the factor Age on Knox's Cube Nonverbal Intelligent Test Scores

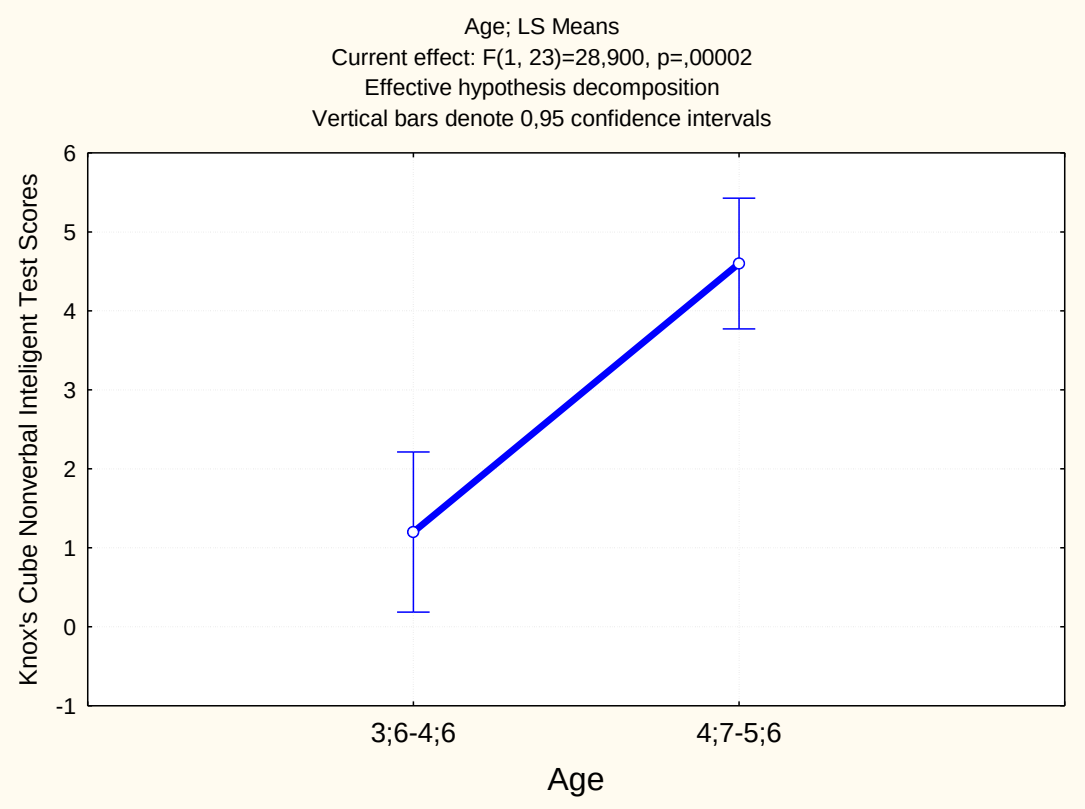


Figure 11 shows that the older children performed this test much better than the younger children. The differences between the two groups are statistically significant F (1.23) = 28.900, p=.00002. As children grow older, their intelligence improves as well.

The correlations of all 5 variables are shown in Table 2 (see Appendix).

From Table 2 it is clear that there is a corelation between the variables *Evidentiality* Task Scores and *Yes/No Question* Task Scores (0,4064); *Evidentiality* Task Scores and *Knox's Cube Nonverbal Intelligence* Test Scores (0,3969); and between the *Yes/No Question* Task Scores and *Knox's Cube Nonverbal Intelligence* Test Scores (0,5073). All correlations are only for the Romani language, not for Bulgarian.

Discussion and Conclusions

The study shows the following tendencies: the older children comprehend and perform the Theory of Mind tasks better in both languages. They also show better results performing the language tasks in both languages, Romani and Bulgarian. However, performing the intelligence task, the children are much better in their mother tongue. There is not any statistically significant corelation between the Theory of Mind task and the language tasks. It seems that the children develop the

Theory of Mind competencies independently of their knowledge about grammatical categories of Evidentiality and Yes/No Questions. Why is this so?

Roma children grow up in a rich language environment. The extended families help the children from birth on to be exposed to and hear a variety of registers. According to Alvarez (2019), from birth to the age of three the human brain develops and the neuron frameworks are established. Their intensity depends on the language environment the child grows up in. The children with more intense exposure to a language from an early age have higher IQs and their performance at school later is much better.

Grosjean (2010) writes about the importance of the family support for the language development of bilingual children. The Roma families fully support the children with language because they use a rich range of oral folkloristic genres, such as singing, fairy tales, lullabies, language games, etc. (Kyuchukov, 2021). Another important factor for the language development of bilingual children noted by Grosjean (2010) is the loving environment. In the small village where the Roma children live, they are surrounded with love in the extended family and in the community, because in the community the people know each other, and it is normal for the neighbours to communicate with children, to play with them, to sing for them. On the other official side of education, the atmosphere in the kindergarten is also very friendly and loving. In small villages the Bulgarians and Roma know each other, and they live in a respectful and friendly relationship. That provides the Roma children the possibility to have access to Bulgarian language from an early age. These are not the Roma communities in Slovakia which Spotakova (2011) has described: living in segregated and isolated settlements, in villages with poor even inhumane living conditions – devoid of proper electricity, water supplies, and basic hygiene, while facing racism and humiliation from the majority society day in day out.

Although the study is limited (with only 40 children) and did not show a correlation between the Theory of Mind tasks and language tasks, the results from the study are very important for the following reasons:

1. Like any other normally developing children around the world, the Roma bilingual children acquire the Theory of Mind competencies after reaching the age of 4. They perform the False-belief tasks in both languages (Romani and Bulgarian) at an equal level.
2. The children show high results in comprehension and production of the language tasks (*Evidentiality* and *Yes/No Questions*) in both languages.
3. The non-verbal intelligence test shows a correlation with the language tasks in the L1 of the children, Romani.

This once more confirms the thesis of Spotakova (2011) that testing of Roma children should be done with culturally appropriate tests and in their mother tongue. And as Templer (2016, 152-153) stresses, in order for the minority children to be successful in their education they need dual bilingual and multicultural education, and to build literacy competencies in the L1 home language as well as the official

school language, a bilingual literacy as "emergent bilinguals" grounded on the conception of the 'Students' Right to Their Own Language' (Mother Tongue First!) as a basic egalitarian discursive and educational right, also embodied in 'MT-based MLE' – *Mother-tongue based multilingual education* (Malone, 2007; see also Smitherman, 1995). In this model, pupils are taught to read first in their home language, and perhaps also learn other subjects up to grade 5 or 6 in their L1, to develop solid literacy skills in the language they know best. Only then will the Roma children not be in a situation such as Spotakova (2011) describes. Roma children across Europe suffer in particular from neglect of learning literacy in their native Romanes (Kyuchukov, 2006), a form of "linguicism" in the sense of Skutnabb-Kangas (2008; 2015), a language-centered form of racism.

Doing research among Roma communities is very important also to know the Roma culture in order to avoid culturally inappropriate tests or task and to understand better the behaviour and reactions of tested Roma children. A young non-Roma psychologist was doing some psychological research with kindergarten Roma children in Slovakia, without knowing anything about the culture, religion, beliefs and values in their community and life world. A Roma child was given a non-verbal test where one of 4 pictures presented does not fit in with the other three: the child must identify and remove it. A Roma girl was shown 3 pictures of fruits and a picture of bread, and the child was asked by the researcher: What one doesn't fit with the other three? The child looked at the pictures but did not react. When the researcher asked her why she doesn't remove the picture which doesn't fit with the other three, the child answered "I can't throw it out. It's a bread. It's a sin if I throw it away".

References

Aksu-Koç, A. et al. (2005). The relation between mental verbs and theory of mind performance: Evidence from Turkish children. International Association for the Study of Child Language.

Alvarez, C. (2019). The Natural Laws of Children. Boulder: Shambhala.

Callaghan, T. et al. (2005). Synchrony in the onset of mental-state reasoning: Evidence from five cultures. Psychological Science, 16(5), 378-384. https://doi.org/10.1111/j.0956-7976.2005.01544.x

DeLuca, V. et al. (2019) Redefining bilingualism as a spectrum of experiences that differentially affects brain structure and function. Proceedings of the National Academy of Sciences, 116(15), 7565-7574.

de Villiers, J. (2007) The interface of language and theory of mind. Lingua, 117(11), 1858-1878.

de Villiers, J. & de Villiers, P. (2000). Linguistic determinism and the understanding of false beliefs. In P. Mitchell, K. Riggs, (Eds.). Children's Reasoning and the Mind. (pp. 189-226). Hove, UK: Psychology Press.

de Villiers, J. & Pyers, J. (2002). Complements to cognition: a longitudinal study of the relationship between complex syntax and false-belief-understanding. Cognitive Development, 17, 1037-1060.

Grosjean, F. (2010). Bilingual life and reality. Cambridge: Harvard University Press.

Kyuchukov, H. (2006). Early home literacy of Roma children in Bulgaria. Education et Sociétés Plurilingues, 20, 51-61.

Kyuchukov, H. (2021). The Roma Family's Oral Culture and Folklore and Language Acquisition by Children. In H. Kyuchukov, S. Zahova, & I. Duminica, (Eds.). Romani history and culture. (pp. 227-235). Munich: Lincom.

Kyuchukov, H. (2007). Turkish and Roma children learning Bulgarian. Veliko Tarnovo: Faber.

Kyuchukov, H., & de Villiers, J. (2009). Theory of Mind and Evidentiality in Romani-Bulgarian Bilingual children. Psychology of Language and Communication, 13(2), 21-34.

Lilard, A. (2006). The socialization of theory of mind: Cultural and Social class differences in behavior explanation. In A. Antonietti, O.Liverta-Sempio & A. Marchetti, (Eds.). Theory of Mind and Language in Developmental Context. (pp. 65-76). NY: Springer.

Malone, S. (2007). Mother-tongue based multilingual education: Implications for education policy. Paper presented at the Seminar on Education Policy and the Right to Education. Kathmandu, Retrieved from https://www.academia.edu/6368207/MOTHER_TONGUE_BASED_MULTILINGUAL_EDUCATION_IMPLICATIONS_FOR_EDUCATION_POLICY_Defining_Mother_Tongue_based_Multilingual_Education_MT_Based_MLE

Navarro, E., DeLuca, V. Rossi, E. (2022). It takes a village: Using network science to identify the effect of individual differences in bilingual experience for Theory of Mind. Brain Sciences, 12, 487. https://doi.org/10.3390/brainsci12040487

Papafragou, A., & Li, P. (2001). Evidential morphology and theory of mind. In Proceedings from the 26th Annual Boston University Conference on Language Development. Cascadilla Press, Somerville, MA, pp. 510-520.

Shahaeian, A. Peterson, C. C., Slaughter, V., & Wellman, H. M. (2011). Culture and the sequence of steps in theory of mind development. Developmental Psychology, 47(5), 1239–1247. https://doi.org/10.1037/a0023899

Skutnabb-Kangas, T. (2015). Linguicism. Encyclopedia of Applied Linguistics. http://www.tove-skutnabb-kangas.org/dl/310-Skutnabb-Kangas-Tove-2015-Linguicism-Encyclopedia-of-Applied-Linguistics-Blackwell.pdf.

Skutnabb-Kangas, T. (2008). Humman Rights and Language Policy in Education. In S. May & N. Hornberger, (Eds.). Language policy and political issues in education, Vol. 1 of Encyclopedia of Language and Education, 2nd edition. (pp. 107-119). New York: Springer, Retrieved from http://www.tove-skutnabb-kangas.org/pdf/ Human_rights_and_language_policy_in_education_Tove_Skutnabb_Kangas.pdf.

Smitherman, G. (1995). "Students' Right to Their Own Language": A Retrospective. The English Journal, 84(1), 21-27. Retrieved from https://www.academia.edu/45224507/Students_Right_to_Their_Own_Language_A_Retrospective.

Spotakova, M. (2011). Cognitive development and Theory of Mind in socially disadvantaged Roma children. In J. Stoyanova and H. Kyuchukov, (Eds.). Psychology and Linguistics. Sofia: Prosveta.

Surrain, S. and Luk, G. (2017). Describing bilinguals: A systematic review of labels and descriptions used in the literature between 2005–2015. Bilingualism: Language and Cognitions, 22, 401–415. https://doi.org/10.1017/S1366728917000682

Templer, W. (2016). Confronting linguicism: Rethinking multiculturalism and bilingual instruction in Bulgaria schools. In H. Kyuchukov (Ed.), New Trends in the Psychology of Language. (pp. 143-175). Munich: Lincom.

Appendix

Table 1

Correlation matrix for 4 variables on the basis of all data – Romani and Bulgarian Language

Variable	Correlations (UnexpEvid.sta) Marked correlations are significant at p < ,05000 N=50 (Casewise deletion of missing data) Means	Std.Dev.	Unexpected Content Task Scores	UnseenDisplacement Task Scores	Evidentiality Task Scores	Yes No Question Task Scores
Unexpected Content Task Scores	3,660000	0,894655	1,000000	0,186142	0,054434	-0,081722
Unseen Displacement Task Scores	1,960000	1,142143	0,186142	1,000000	0,030721	0,082243
Evidentiality Task Scores	2,660000	1,349376	0,054434	0,030721	1,000000	0,340526
Yes No Question Task Scores	3,940000	0,842978	-0,081722	0,082243	0,340526	1,000000

Table 2

Correlation matrix for 5 variables on the basis of the data of Romani language only

Variable	Correlations (UnexpEvid.sta) Marked correlations are significant at p < ,05000 N=25 (Casewise deletion of missing data) Means	Std.Dev.	Unexpected Content Task Scores	Unseen Displacement Task Scores	Evidentiality Task Scores	Yes No Question Task Scores	Knox Cube Scores
Unexpected Content Task Scores	3,5200	0,9183	1,0000	-0,1772	0,2086	-0,1194	0,2764
Unseen Displacement Task Scores	1,5200	0,9626	-0,1772	1,0000	0,0077	0,1662	-0,0403
Evidentiality Task Scores	2,4400	1,5832	0,2086	0,0077	1,0000	0,4064	0,3969
Yes No Question Task Scores	3,8800	0,9274	-0,1194	0,1662	0,4064	1,0000	0,5073
Knox Cube Scores	3,2400	2,2782	0,2764	-0,0403	0,3969	0,5073	1,0000