THE KNOWLEDGE OF ROMANI
AND SCHOOL READINESS OF ROMA CHILDREN

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Abstract. The paper presents results from an international research project done with Roma children between the ages of 3 and 6 years old. Thirty Roma children from Southwest Bulgaria and 30 Roma children from East Slovakia were tested with a psycholinguistic test in Romani language, measuring the knowledge of different grammatical categories. In most East European countries, the children are tested employing psychological/IQ tests in the official languages of the country and if the child does not understand the test task, because of a lack of knowledge in that language, s/he is deemed to have “light mental retardation”. The knowledge of the children on different grammatical categories in their mother tongue is not taken into account. For the first time in Europe, a psycholinguistic test was developed for measuring the knowledge in Romani (comprehension and production). Categories such as wh-questions, wh-complements, passive verbs, and possessiveness are measured with newly developed test. The knowledge of the children is connected with two theories: the ecological theory of Ogbu (1978) and the integrative theory of child development (García Coll et al. 1996). Ogbu’s theory stresses the importance of the home culture in the development of the children and the theory of García Coll and her collaborators presents the home environment and the SES of the families as an important predictor for language development and school readiness of the minority/migrant children.

Keywords: Roma children, ecological theory, integrative theory, Romani language assessment test, school readiness.

Анотація. У статті представлено результати міжнародного дослідницького проекту, в якому взяли участь діти ромів віком від 3 до 6 років. Тридцять дітей із сімей ромів з Південно-західної Болгарії та тридцять дітей із сімей ромів зі Східної Словаччини пройшли психологічні тести в мові ромською з метою оцінки знань різних граматичних категорій. Автори зазначають, що в більшості країнах Східної Європи діти проходять психологічні тести на визначення рівня інтелекту на офіційних мовах країни і,
якщо дитина не розуміє тестове завдання через відсутність знань на цій мові, вважають, що їй характерна «легка форма розумової відсталості». Відтак, знання різних граматичних категорій дітьми їхньою рідною мовою не прийнято брати до уваги. Уперше в Європі розроблено психологічний тест ромською мовою для оцінки знань (розуміння та породження). Розроблений тест спрямований на оцінку знань таких категорій, як Wh-запитання, Wh-доповнення, пасивні дієслова, присвійність. Рівень розвитку дітей автори пов’язують із двома теоріями: екологічною теорією Огбу (1978) та інтегративною теорією розвитку дитини (García Coll et al. 1996). Теорія Огбу підкреслює важливість рідної культури в розвитку дітей і є суголосна з теорією Гарсії Кол і колег, адже полягає в тому, що ключовими чинниками розвитку мови та рівня підготовленості дітей до школи є домашнє оточення та соціально-економічний стан сімей, у яких виховуються діти мігранти чи діти з числа меншин.

Ключові слова: ромські діти, діти ромів, екологічна теорія, інтегративна теорія, тест на оцінку знань ромської мови, підготовленість до школи.

1. Introduction

The Roma are the largest ethnic minority in Europe. In 2005, 11 European countries declared that within the Decade of Roma inclusion they would work to develop better conditions in housing, health, employment and education for Roma. However, the Decade now has come to an end and little that is genuinely positive has been achieved for most Roma. The majority of the 12 million Roma still live in poverty, segregation and are jobless. All the initiatives of the countries involved in the Decade in the four areas mentioned are judged to have failed. Most of the Roma children are still in segregated, or in “special” schools, or they simply do not have any access to school at all.

Different initiatives took place in the field of education such as: the “Step by step“ program, desegregation of Roma ghetto schools and closing down “special schools” in some countries (Kyuchukov, 2006). Unfortunately, none of these programs achieved the hoped for results and genuine change in the life of Roma children. The National Action Strategies developed at the beginning of the Decade actually did not reduce discrimination in the respective societies (Hollo, 2006). Rather we find precisely the opposite. Antigypsyism in Europe has increased and the segregation of Roma is worse today than 10-15 years ago.

The research with children show that all normally developing children follow the same “pats” in their language development. First the sound system, then the vocabulary, the syntax and later the ability to narrate are developed (Tomasello, 2003; Roskos and Neuman, 2005; Neuman and Marulis, 2010). The Roma children are not exception in this process of language development. The only difference is the use of different strategies and approaches for language development used by Roma parents, which are part from the Roma culture (fairytales, folksongs, teasing, and language games). In Roma communities everyone is free to communicate and play with the children. In extended families the children are exposed to different registers speaking with parents, adults and siblings (Kyuchukov, 2014; Kyuchukov, Kaleja & Samko, 2016).

The aim of the article is to present results from an international research showing the level of knowledge of Romani as a mother tongue among Roma
children in Bulgaria and Slovakia. The research questions we try to answer with this study are:

1. Which grammatical categories the normally developing Roma children know in their mother tongue at the age of 3-6 years old?
2. How the knowledge of the children in their mother tongue can help them for preparation for primary school education?

**Theoretical Framework**

*IQ tests with Roma children*

Roma children in some European countries are still tested with IQ tests, although in the U.S. and some European countries it is forbidden to use IQ tests.

Bafekr (1999) studied “two culturally distinct groups: Poles and Romanian Gypsies” using “projective tests and intelligence tests as an aid to understand many difficult situations”. According to the author, Roma children are often absent from school due to their culture: the knowledge acquired at school “does not conform to the values of Gypsy culture, particularly not at the cognitive and semantic levels” (p. 300). Bafekr (1999: 301) also notes:

“On the standardized intelligence tests the [Roma] children scored far below average. At the same time, however, their ‘practical’ intelligence appears to be much higher than many children at the same age. Children as young as eight, for example, are expected to find their way around the city, survive in any situation, and give the impression of the independence. This finding is confirmed in virtually all the literature describing the educational problems of Gypsy children…. If the attitude towards education in Gypsy culture is considered along with their view of the world (which is pre-operational at the cognitive level), then different test results are all too understandable since they are based on ‘Western’ standards. At a minimum, then, we should stop assessing the intelligence of Gypsy children against Western standards using Western measures. Perhaps an attempt should be made to educate them in a way that guarantees a minimum of educational and cultural compliance between the two cultures.”

Although Bafekr makes what can be interpreted as racist comments about the Roma culture and schooling, in the end he suggests that Roma children should not be measured by Western IQ tests, even though researchers continue to use them. However, only five years later, researching Czech and Slovak Roma children Bakalar (2004:291) noted:

“Several studies in central Europe have shown that Gypsies tend to score lower on IQ tests. This has frequently been explained as the results of (a) the poor environmental conditions in which Gypsy families live and (b) language difficulties, because a number of Gypsies speak their own language and not that of the majority population. It is probable that the environment in which Gypsies typically live does not foster the development of intellectual abilities and social mobility. However, the pervasive social failure of Gypsies in all studied societies raises the question of whether their intellectual deficit is due to biological/genetic causes as well as environmental differences.” [our italics]
Bakalar thinks that one of the problems of Roma children is that they speak their mother tongue, which causes them to get low scores on IQ tests. Strangely enough, the author does not question the cultural appropriateness of the IQ test. He clearly thinks that “Western” IQ tests are suitable for all cultures and are not culturally biased. The basically racist comment on the “intellectual deficit” of Roma children is unacceptable in science and reminiscent of the style of Nazi discourse about during WW II.

Another study by Kertesi and Kezdi (2011) compares ethnic Hungarian children from mainstream schools and Roma children from special schools and discovers that the test-score gap between Roma and non-Roma is similar to the black/white gap in the United States during the 1980s. The authors conclude that education and poverty play an overwhelming role in the large score gaps in such tests in Hungary.

Rushton, Cvorovic and Bons (2007) and Cvorovic (2014) focus on the IQ test performance of Serbian Roma. The first study tests Roma with Raven’s Standard Progressive Matrices (SPM), measuring “the ability to identify relationships”, “analogical thinking” and the ability to “think clearly”. Another test used in the study is the Colored Progressive Matrices (CPM). The Roma averaged very low scores on all tests. The authors found that the SPM and CPM percentile points convert to an IQ equivalent of 70. Although the authors mention that the tests used may not be culturally appropriate for the Roma culture, they conclude that “the Roma children grow up in culturally disadvantaged conditions [...] [they] are not as exposed to the intellectual stimulation and test taking attitudes typically associated with high test scores” (Rushton, Cvorovic and Bons, 2007:10).

Cvorovic’s (2014) book, The Roma: A Balkan underclass, explains that two-thirds of the child subjects had been diagnosed with “light mental retardation”. The author collated published IQ tests results, mostly involving Wechsler tests, of reasonably sized samples with local populations as control groups. Adult Roma were shown to have intelligence scores very similar to South Asians, with average adults indicating IQs in the 70 range in a wide variety of samples. According to the author “the poor scholarship of the children seems to be due to a mixture of low ability and a strong belief that education beyond primary school is of no interest or benefit”. Unfortunately, this study is replete with prejudices, stereotypes and racist statements about Roma. One can conclude from reading it that the Roma are in this situation in Europe because they have clung to their culture for the eight centuries since they arrived in Europe – that living in Europe all this time has had almost no impact on them.

In her dissertation from 1943, Eva Justin conducted “psychological” research with Roma children in Nazi Germany, measuring their intelligence. Her findings show that as a result of their low IQ, “Roma children do not have abstract thinking...; they have problems with concentration and attention...; do not have the discipline of German children...; the boys are genetically predisposed to be criminals... and the girls are genetically predisposed to be prostitutes”. The recommendation drawn from her “research” is that Roma should be sterilized in
order “to avoid the reproduction of asocial Gypsies who are not willing to integrate into German society”. Forty-one Roma children from her study were sent to Auschwitz, where some were objects of the medical “research” conducted by Dr. Josef Mengele and the others were killed in gas chambers. Only two children she had studied survived the concentration camp.

Comparing the publications on Roma intelligence of contemporary and modern European authors with Justin’s 1943 dissertation, it would appear that for all these authors, the main problem is the fact that the children know their mother tongue and culture. In their view this is an obstacle for integration into the majority societies. It seems the authors are not familiar with existing theories and publications regarding the importance and use of mother tongue and culture in the cognitive development of minority children.

**Integrative models for minority/migrant children**

In this article, we adapt in part the model for the study of child development developed by Garcia Coll et al. (1996) in the U.S. and which addresses the children of color. The authors present an integrative model of child development, drawing on Parsons’ (1940) social stratification theory emphasizing the influence of racism, prejudice, discrimination, oppression, and segregation on the development of minority families and children (Garcia Coll et al., 1996).

According to Bronfenbrenner (1979, 1986), the family's interaction with other groups and institutions influence the way the children adapt to non-familial environments (e.g., school). An influential factor in the children’s success at school is the parents’ level of education, employment, the parent-child relationship, home environment, and resources available inside and outside of home. Ogbu (1978, 1981, 1988) [based on Han, 2006] adapted Bronfenbrenner’s theory, applying it to emigrant children’s families, with an emphasis on the importance of the culture. García Coll et al. (1996) stress the importance of the surrounding environment on behavioral, emotional, and cognitive development of the children. The neighborhood and school environment either promote or inhibit minority children’s development (Han, 2006). According to Han (2006) the social position of a group of people, the racism and segregation directed against them, are considered to be important factors in the educational process. García Coll et al. (1996) do not underestimate the role of the culture in the learning process of minority children. The extended families, the community and friends help them to learn new things in everyday life. Han (2006) stresses:

Additionally, child/parent/family characteristics, home environment and parental educational practices (e.g., learning activities at home, participation in extracurricular activities and school events), and school (e.g., student composition and average academic performance, parental involvement, school safety) and neighborhood (e.g., residential neighborhood quality) environments are considered possible mediating factors for any such associations (p. 288).

Forget-Dubois et al. (2009) studied the effect of home environment quality on school readiness. The authors considered the SES to be an indicator of the general home environment quality. They argue that the features of home environment are
significantly predictive on later language skills. The SES and maternal speech are very important for vocabulary development. Language skills and school readiness are also correlated. The children with low SES but with higher language competence evince a good level of school readiness. The relation between language development and school readiness is not only a predictor of school achievement but is also itself a school readiness measure.

Rydland (2009), doing research among bilingual Turkish children from Norway, investigated their pretended play. Through pretended play the children develop complex language skills and narrativity. The highly developed oral skills show pragmatic language competence in the mother tongue of the children, which is important for second language acquisition.

The analysis of the literature shows that there are IQ tests with Roma children “proving” that Roma children have low scores on IQ test, but at the same time there are theories and publications with minority/migrant children indicating that the home environment, language and culture play an important role in their development.

2. Methods
The research included 60 Roma children between 3-6 years old: 30 children from Bulgaria and 30 children from Slovakia. The children were selected randomly. They were grouped in three age groups:

- 1gr. 10 children between 3; 0 – 3; 11 years old
- 2gr. 10 children between 4; 0 – 4; 11 years old
- 3gr. 10 children between 5; 0 – 6; 0 years old

All the children were tested in their mother tongue – varieties of Romani language. Roma in Slovakia and Roma in Bulgaria speak different dialects, but still the language is the same. The children were tested in community centers by speakers of the two particular dialects. They do not attend kindergarten and most of the knowledge they acquire about the world is obtained through communication with the family members.

Three picture tests were used for testing the language knowledge of Roma children in their mother tongue:

Test 1: Wh- questions (Who eats what?) – 8 items – production test. The children were showing 8 pictures with different actions done by the protagonists and the children were asked questions regarding the actions. In some languages when there are two wh words at the beginning of the sentence the first wh word is answered and in some other languages – the second wh word. The expectation form the children is that they will answer the both wh words in the sentence.

Test 2: Passive verbs (The dog was kicked by the horse) – 16 items – comprehension test with multiple choice. The test measures the knowledge of the children of passive tests. The children usually understand sentences such as: The dog kicks the horse. But it is more difficult to understand sentences such as: The horse was kicked by the dog.
Test 3: Possessiveness (The horse has a balloon. This is not your balloon. This is the...) – 26 items – production test. The test is based on Berko’s Wug test (1958), where the children have to fill in orally the missing word, in this case the possessive endings in Romani for masculine and feminine and for singular and plural with known objects as well as with novel ones.

The tests were adapted to the local dialects spoken by Roma from the two communities in Bulgaria and in Slovakia.

The Bulgarian Roma children are from the town of Kyustendil. Roma in Kyustendil live in a settlement far from the center of the town. The children grow up in extended families where two or sometimes three generations live together. The settlement there is very big, numbering approximately 10,000 inhabitants. Most of the families have very good living conditions. They have large houses, with water, electricity and internet. The children have access from a very early age to books, internet, TV. Religion plays an important role in the life of Roma – most Roma belong to Pentecostal Church in Kyustendil and are followers of evangelism. This Protestant missionary church organizes Sunday schools, summer schools and all kind of religious cultural activities for children.

Slovak Roma children are from the town of Spisska Nova Ves. They live in a ghetto-like settlement, very isolated from the society. The living conditions in that ghetto are very bad. There is just one water tap for approximately 1,000 people. Sometimes 10 individuals are living in a small house; some of the houses have no electricity and no internet. Most of the children do not have access to books, printed materials and toys. Mainly they learn the language and the culture through oral communication with the parents and community members.

Our hypotheses are:

H1: The SES of the families influence the language development of the children and their School Readiness (SR).

H2: Early complex language development of Roma children mediates SR.

3. Results

The findings from the first test, Wh – questions, shows that between the age groups there are statistically significant differences. The first age group from both countries (3-4 years old) showed lower results in comparison to the third age group (5-6 years old). Figure 1 shows the total score of the first test as a function of age group.

The impact of the factor Age group on the Total scores of Wh-questions test as a dependent variable is statistically significant (F=12,94; p<0,0001). Size effect is large (η² =0, 34). The Post Hoc Tests show that between all the groups, there are statistically significant differences. Comparing the results of the children between the two countries, one can see that the Roma children from Bulgaria have higher results than the Roma children from Slovakia.

The impact of the factor country on the Total scores of Wh-questions test as a dependent variable is statistically significant (F=20, 28; p<0, 0001). Size effect is
medium ($\eta^2 = 0.28$). The Roma children from Bulgaria perform this test much better than the Slovak Roma children.

**Fig. 1.** Total Scores on Wh-questions Test as a Function of Age Group

In the performance of the second test on passive verbs, the age groups again show statistical differences. Figure 2 indicates that older children from both countries understand and complete the tasks much better than the younger children. The results are plotted in Figure 2.

**Fig. 2.** Total Scores on Passive Verbs Test as a Function of Age Group
The impact of the factor Age group on the total scores on the passive verbs test as a dependent variable is statistically significant (F=25, 42; p<0, 0000). Size effect is large (η²=0, 49). The Post Hoc Analyses show that the differences between all three groups are statistically significant. Comparing the children from the two countries, one can see that again the Bulgarian Roma children perform this test much better. The impact of the factor country on the total scores on passive verbs test as a dependent variable is statistically significant (F=35, 45; p< 0,0000). The size effect is large (η²=0, 41). Again the Bulgarian children are much better than the Slovak children.

How did the children perform in the third test, relating to the possessive? The results are given in Figure 3.

![Graph showing total scores on possessiveness test as a function of age group and country.](image)

*Fig. 3. Total Scores on Possessiveness Test as a Function of Age group*

The impact of the factor Age group on the total scores on the Possessiveness test as a dependent variable is statistically significant (F=22, 01; p<0, 0000). Size effect is large (η²=0, 46). Again the older children from both countries are much better than the younger children. The Post Hoc analyses show that the differences between the three groups are statistically significant. How did the children perform this test by country? The impact of the factor country on the Total scores on the Possessiveness test as a dependent variable is statistically significant (F=39, 86; p<0, 0000). The size effect is large (η² =0, 44). Again the Bulgarian Roma children are much better than the Slovak Roma children.

Figure 4 shows the total scores on the Possessiveness test as a function of interaction between factors age group and country. Figure 4 clearly shows that all age groups form Bulgaria perform in the Possessiveness test much better than the Roma children from Slovakia. The impact of the interaction between factors Age group and Country on the total scores on the
possessiveness test as a dependent variable is statistically significant (F=6.46; p<0.01). The size effect is medium (η² =0.20).

![Graph showing total scores on possessiveness test by age group and country]

**Fig. 4.** Total scores on Possessiveness Test as a Function of interaction between factors Age group and Country

The Post Hoc analyzes show the differences between groups by country and one can see that between the first and second groups from both countries, the differences are statistically significant, but between the third age groups there are no statistically significant differences.

4. Discussion and Conclusions

Coming back to the hypotheses of the study, it seems that our first hypothesis is confirmed. We see that the SES of the families influence the language development of the children and their school readiness as it is stated by García Coll et al. (1996). The Roma children from the town of Kyustendil in Bulgaria, although they live in a ghetto-like settlement, have much better conditions in comparison with the Roma children from Slovakia. It seems that the Slovak Roma children grow up in highly deprived conditions (in some of cases very close to the conditions prevailing in some African countries) and lack access to toys, books, TV, internet and other facilities. Growing up stigmatized as Roma with all the negative stereotypes and prejudices in the society against Roma confirms the integrative theory of García Coll and her collaborators that all the negative phenomena and attitudes in the societies towards minority groups (such as racism and discrimination) influence the development of the families and their children. In this case, the Roma children do not have the necessary readiness for school education, because the isolation and segregation in which they live and grow up do not give them a natural possibility to become socialized in the society as is the normal case.
with children from the majority population. Their socialization occurs only in Roma community and it is according to the norms of Roma community. However, they do not know how to behave outside the Roma community or in institutional settings such as the school.

Opposite to the Slovak Roma children, the Bulgarian children, although living in a ghetto-like settlement, have much better conditions and more contacts with the majority society, because the settlement is not so far from the town. Moreover, most of the children here have much better conditions at home. The Protestant church also plays an important role in their life. Organized religious cultural activities such as summer schools, Sunday schools, excursions, bring together Roma and non-Roma and helps the children from early ages to have a different behavior and get different type of socialization. So there are an ensemble of factors influencing the life of the Bulgarian Roma children in a positive way, and this helps to shape an ecology of positive development for them. That means that Roma children from Bulgaria have better school readiness although they do not attend kindergarten before entering 1st grade.

Romani language, being mainly an oral language, is learned by the children from oral communication and the rich folkloristic culture such as songs, fairy tales, teasing, jokes and other genres of folklore. It seems that the complex language development of Roma children cannot be reached until the age of 5-6 years old. Even when they do not attend kindergarten and do not have good conditions at home, between the ages of 5 to 6 they learn the most complex grammatical structures, as shown by the test for possessiveness. The children 5-6 years old from Bulgaria and Slovakia reach the same level of complex grammatical knowledge, performing the possessiveness test and this can be taken as an indicator for school readiness. All the research findings with Roma children are contrary to the claims of Bakalar (2007) and Cvorovic (2014) that the problem of the integration of Roma children is the knowledge of the Romani as a mother tongue. The results from the research although is a limited one show that the Roma children should be tested with culturally appropriate tests and in the mother tongue of the children.

It is another question if the school systems in these two countries know how to use the children’s knowledge in their mother tongue. Coming back to Ogbu’s ecological theory, our data proved that the knowledge of mother tongue by minority children is a mediating factor for school readiness. The lack of knowledge of the official language of the country of the residence and lack of social behavior in the majority society do not make one “mentally retarded” as has been assumed by some researchers in Europe in the past.
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