Socioeconomic Background, Nonverbal IQ, and School Absence Affects the Development of Vocabulary and Reading Comprehension in Children Living in Severe Poverty

LiNCon seminar 2019
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Roma group: An important minority group in Europe

Roma people as share of population* in selected European countries, 2012 estimates

*and related groups, ie Sinti ** excluding Kosovo; Source: European Council
Challenges in the Roma group throughout Europe

<table>
<thead>
<tr>
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<th>Roma</th>
<th>Non-Roma</th>
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<tbody>
<tr>
<td>Compulsory school non-attendance</td>
<td>14%</td>
<td>3%</td>
</tr>
<tr>
<td>Illiteracy of 16 year olds</td>
<td>20%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>No secondary education</td>
<td>89%</td>
<td>38%</td>
</tr>
<tr>
<td>Unemployment</td>
<td>58%</td>
<td>19%</td>
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Other challenges:
• Late school start
• Early school drop-out

Development of vocabulary and reading comprehension

171 Roma bilingual
151 Roma monolingual
178 Romanian children (non Roma)

Assessment scheme

Beginning of 1st grade
End of 1st grade
Beginning of 2nd grade
End of 2nd grade
April 3rd grade
Do the more affluent non-Roma children have greater vocabulary and reading comprehension skills at the beginning of the study, and do they show quicker development in these skills compared to the Roma children?
Research questions

Do the more affluent non-Roma children have greater vocabulary and reading comprehension skills at the beginning of the study, and do they show quicker development in these skills compared to the Roma children?

Do the bilingual children have poorer initial skills and a slower development of vocabulary and reading comprehension compared to the monolingual Roma children?
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Does SES explain both beginning skills in vocabulary and reading comprehension as well as the developmental rates (growth) of these skills?
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Does SES explain both beginning skills in vocabulary and reading comprehension as well as the developmental rates (growth) of these skills?

Is the potential effect of SES on the growth of vocabulary and reading comprehension skills partly mediated through nonverbal abilities and school absence?
Mother’s Education
Family Income
Housing Conditions
Parent Employment

SES
Vocabulary development

![Graph showing vocabulary development over time for three groups: BILING, MONOLING, and NONROMA. The x-axis represents time in months, ranging from 0 to 30. The y-axis represents vocabulary scores, ranging from 0 to 30. The graph shows an upward trend for all groups, with Group NONROMA having the highest scores and Group BILING having the lowest.](image-url)
Do the more affluent non-Roma children have greater vocabulary and reading comprehension skills at the beginning of the study, and do they show quicker development in these skills compared to the Roma children?
Roma bilingual
Roma monolingual
Romanian children (non Roma)
Research questions

Do the bilingual children have poorer initial skills and a slower development of vocabulary and reading comprehension compared to the monolingual Roma children?
Bilingual against non Roma
Cohen's $d$

### Reading Comprehension Growth

**Vocabulary Initial status**

**Cohen's $d$ against non Roma**

- $6.43**(3.80) -1.24**
- $8.71**(4.98) - .78**
- $13.71**(7.38)$

**Bilingual against monolingual Roma:**
$d = - .515^*$

### Vocabulary Growth

**Vocabulary Initial status**

**Cohen's $d$ against non Roma**

- $3.98**(3.41) - .50$
- $3.26**(2.19) - .82**$
- $5.63**(3.29)$

**Bilingual against monolingual Roma:**
$d = .251$

### Reading Comprehension Initial status

**Cohen's $d$ against non Roma**

- $3.02**(2.26) - .93**$
- $2.71**(2.16) - 1.05**$
- $5.63**(3.29)$

**Bilingual against monolingual Roma:**
$d = .140$

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**SES**

- Mother's Education
- Family Income
- Housing Conditions
- Parent Employment
Research questions

Does SES explain both beginning skills in vocabulary and reading comprehension as well as the developmental rates (growth) of these skills?
Reading comprehension growth

Vocabulary growth

SES

Mother’s Education

Family Income

Housing Conditions

Parent Employment
\[ \chi^2 (181) = 237.395, \ p = .003, \ \text{RMSEA} = .043 (10\% \ CI = .026-.058), \ \text{CFI} = .980, \ \text{TIL} = .975, \ \text{SRMR} = .062. \]
Research questions

Is the potential effect of SES on the growth of vocabulary and reading comprehension skills partly mediated through nonverbal abilities and school absence?
Roma bilingual
Roma monolingual
Romanian children (non Roma)

χ² (241) = 349.842, p < .001, RMSEA = .052 (10% CI = .040-.064), CFI = .967, TIL = .959, SRMR = .063.
The total indirect effects from SES to vocabulary growth were \(0.112\) (95% CI = \(0.010, 0.298\)), \(0.163\) (95% CI = \(0.021, 0.398\)) and \(0.104\) (95% CI = \(0.010, 0.246\)) for the bilingual Roma, the monolingual Roma and the non-Roma respectively.

The total indirect effects from SES to reading comprehension growth were \(0.139\) (95% CI = \(0.061, 0.254\)), \(0.159\) (95% CI = \(0.039, 0.333\)) and \(0.118\) (95% CI = \(0.045, 0.217\)) for the bilingual Roma, the monolingual Roma and the non-Roma respectively.

Roma bilingual
Roma monolingual
Romanian children (non Roma)
Thank you for the attention!