INTRODUCTION

The present study explored age-related changes in flexibility and automaticity in social cognition during adolescence. The Polish translation of a newly developed tool: FASC was used (Hayward, Homer & Sprung, 2016). We analyzed the role of ambiguity and language content in the stories of FASC as potential factors that influence the level of performance. We hypothesized that:

1. Middle adolescents would outperform early adolescents in flexibility and automaticity.
2. Adolescents would demonstrate the greatest flexibility and automaticity in verbal and unambiguous stories (because of language cues and familiarity of social scripts).

METHOD

Group: 109 13-year-olds (M = 12.68; SD = .49; 54 girls) and 141 16-year-olds (M = 15.80; SD = .44; 107 girls).

Tool: FASC (Flexibility and Automaticity in Social Cognition): 8 vignettes: ambiguous (A) vs unambiguous (UA); verbal (V) vs nonverbal (NV) content.

e.g. V-UA story:

<table>
<thead>
<tr>
<th>Initial Reaction Time IRT</th>
<th>MST</th>
<th>MSR</th>
<th>IRT</th>
<th>TMSR</th>
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<tbody>
<tr>
<td>13yolds (years)</td>
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<tr>
<td>16yolds (years)</td>
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</tbody>
</table>

ToM Flexibility

- **Total Mental-state Terms MST**: mean number of mental states used when taking about story characters
- **Total Mental-state Responses MSR**: mean number of unique justifications/utterances used when taking about story characters

ToM Automaticity

- **Initial Reaction Time IRT**: time in seconds from beginning of the last word of the first prompt until first word of the initial utterance of the participant (mean)
- **Time per Mental-state Response TMSR**: time in seconds from beginning of the last word in the first prompt to the end of the last utterance by number of MSR (mean)

RESULTS

The main effect of AGE in FASC: Wilks’ Lambda = .90; F(4, 243) = 6.78; \( p < .001; \eta^2_p = .10 \)

Effects of language and ambiguity in FASC

The hypothesis 2 was confirmed regarding the role of the ambiguity on flexibility/automaticity, and partially for the role of language on both these factors.

DISCUSSION

- Middle adolescents outperformed early adolescents in **flexibility**: Older adolescents produced more mental state terms and utterance with mental justification.
- Age-related changes were found for **automaticity** when it was measured with index of time with regard to mental state response: perhaps because longer explanations may have required more time.
- There were clear effects of ambiguity on automaticity and flexibility: more familiar stories were performed faster and elicited more mental terms and utterances.
- The effect of language content on automaticity and flexibility was unclear: language cues intensified the use of mental state terms and lowered the time per mental state response.
- The present results pave the way for a more thorough developmental, cross-cultural analysis of advanced social cognitive development in terms of Theory of Mind (ToM).

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