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Getting to Know You: Feasibility of a Naturalistic Language Sampling Protocol with School-Aged Autistic Children

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Abstract

Background: Given the vast heterogeneity and context-dependence of language abilities in autistic individuals, it is recommended that researchers supplement formal language assessments with Natural Language Sampling[1] (NLS; i.e., narration, play, conversation). Conversation-based NLS approaches have demonstrated strengths in eliciting rich and generalizable speech samples[2,3] and have been associated with later social outcomes[4]. Despite its utility with autistic adolescents and adults, conversation-based sampling methods have not been widely used with younger autistic children[1].

Methods: We aimed to develop and evaluate a novel adaptation of the Expressive Language Sampling protocol[5] for young autistic children during which we centered the second half (5-min) of the semi-structured interaction around the child's parent-identified *special interest*. To facilitate engagement and obtain a unique speech sample, we introduced a coloring activity during the task. Trained assessors administered the task to a sample of autistic (N = 60) and non-autistic (N = 60) four-to-eight-year-old children (M_{age} = 6.46, SD_{age} = 1.49, 49% female) and rated/endorsed the interaction using 5-point Likert scales and yes/no statements.

Results: Groups did not differ (p = 0.86) in task duration (M = 11.96, SD = 3.19 minutes). Autism characteristics associated negatively with assessor-rated ease of engagement and talkativeness (p's < .001), but not with child affect (p = 0.24). Non-autistic children were rated as significantly easier to engage, $t(111) = -3.78$, $p < .001$, and more talkative, $t(109) = -3.17$, $p = .001$. Groups significantly differed on binary ratings of *never talking* and being flexible with conversation topics but were similar on ratings of comfort/enjoyment (Table 1).

Conclusions: This preliminary evaluation of a novel adaptation to an NLS task suggests that although assessors had more overall success with a non-autistic comparison group, the majority of autistic children were engaged, talkative, and comfortable in the interaction. Given the limited studies using conversation-based NLS approaches with this age group, these results show promise for continued methodological advancement. Next steps include (1) examining child characteristics (intellectual and language ability) as predictors of child engagement, (2) evaluating speech metrics (lexical diversity and conversational turns), and (3) comparison with other collected NLS samples (narrative and play).

Table 1. Binary responses (yes/no) to evaluation statements by assessors

Evaluation Statement	% "Yes" Responses	Chi-Square Result
"Child seemed comfortable in the interaction"	Autistic group: 70% Non-autistic group: 82%	X^2 (1, N = 120) = 1.637, p = 0.2
"Child was slow to warm up"	Autistic group: 27% Non-autistic group: 36%	X^2 (1, N = 120) = 0.63, p = 0.43
"Child never really talked"	Autistic group: 20% Non-autistic group: 2%	X^2 (1, N = 120) = 8.63, p < .01
"Child enjoyed talking to me"	Autistic group: 62% Non-autistic group: 79%	X^2 (1, N = 120) = 3.21, p = 0.07
"I had to work hard to elicit a smooth conversation"	Autistic group: 35% Non-autistic group: 26%	X^2 (1, N = 120) = 0.63, p = 0.43
"Child was flexible with conversation topics"	Autistic group: 38% Non-autistic group: 77%	X^2 (1, N = 120) = 16.51, p < .001

References

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