Non-autistic and autistic teenager's use of "*um*" varies in monologic versus dialogic discourse contexts

Cynthia Boo[1], Aaron Shield[2], Juandiego Carmona[3], Ruth Grossman[4], Letitia Naigles[1], Emily Zane[5]

[1] University of Connecticut
[2] Miami University
[3] Teachers College, Columbia University
[4] Emerson College
[5] James Madison University

Correspondence: cynthia.boo@uconn.edu

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Objective:
To compare "*um*" use by Autistic & NonAu speakers across datasets that utilize different discourse elicitation tasks

Background

- When speakers use "*um*," they may be pausing to plan an utterance, and/or intending to take a turn in the exchange.[1,2]
- Research has reported that autistic individuals use "*um*" less often than non-autistic (NonAu) individuals when they answer questions during diagnostic testing,[3] describe how to play a sport,[4] and describe pictures.[5]
  - These authors argue that differences in "*um*" use are due to autistic individuals' general pragmatic challenges.
- However, a recent study reported no difference in "*um*" usage between NonAu and autistic children during dyadic conversation.[6]
- **This suggests that differences in "*um*" use may not persist in all contexts.**

Methods

Study 1: MONOLOGIC TASK	Study 2: DIALOGIC TASK

• Participants were asked to develop a fictional story based on a story stem
• Participants were then asked to narrate the story for three-uninterrupted minutes to a panel of judges (i.e., Trier Social Stress Test, Kirschbaum et al., 1993)
  • The panel of judges were prerecorded, unbeknownst to the participant.
  • Thus, the panel of judges did not backchannel nor comment as the participant narrated their story.
	• Participants were selected from a longitudinal study of early language.[7]
	• Participants engaged in conversation with a research assistant (RA)
	  • RA first shared a personal experience (e.g., "The other day I lost my keys"), and then asked the participant to share a similar experience (e.g., "Have you ever lost anything?")
	  • RA provided backchanneling responses and comments as the participant spoke

Table 1. Participant demographic information

		Chronological Age	CELF-5 Expressive Language Index	# of Word Tokens
Monologic Task	**Autistic Group** (n = 20)	13.6 (2.2)	106.0 (20.0)	342.1 (136.6)
	Non-Autistic Group (n = 20)	13.8 (2.3)	108.7 (10.7)	411.8 (100.8)
Dialogic Task	**Autistic Group** (n = 12)	16.1 (3.0)	83.9 (21.9)	346.0 (194.0)
	Non-Autistic Group (n = 16)	14.4 (3.0)	101.9 (17.6)	365.3 (184.6)

NOTE: Groups did not differ statistically in chronological age, nor amount of talk as measured by number of word tokens, but they did differ in CELF-5 scores, with the autistic group who completed the dialogic task having the lowest CELF-5 scores among the four groups.
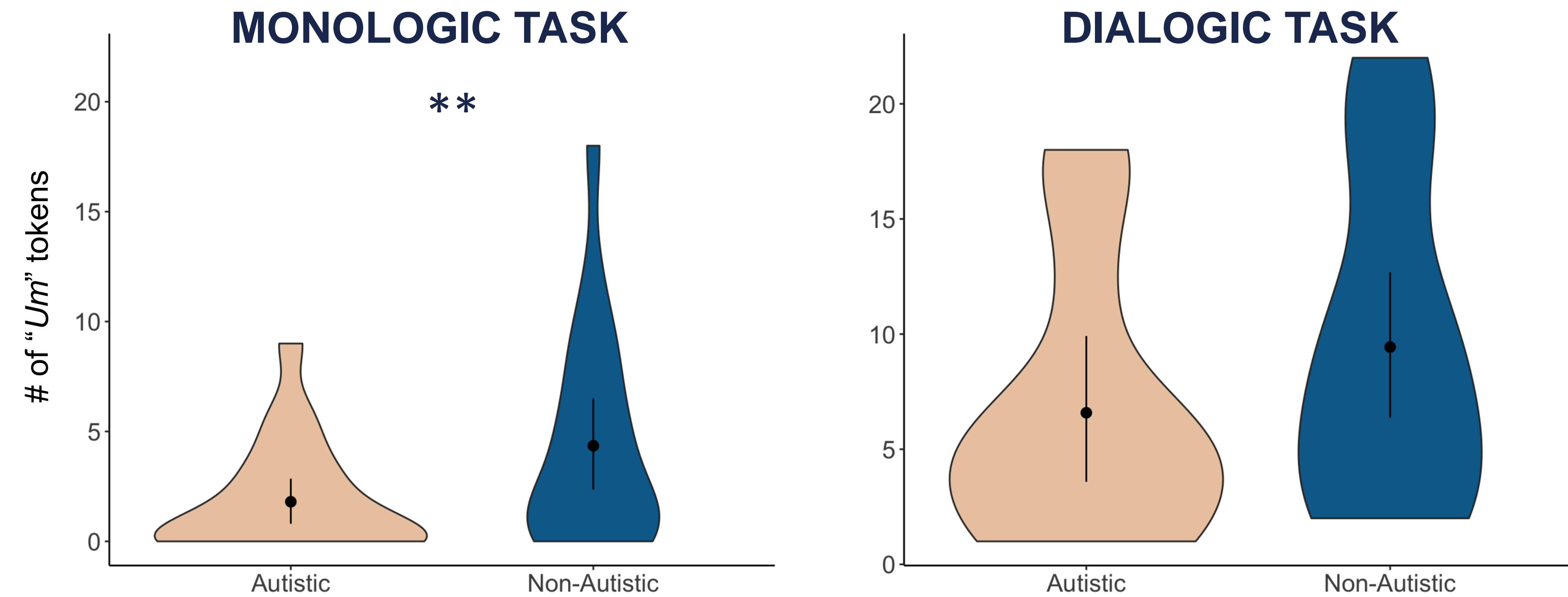
Results

MONOLOGIC TASK

DIALOGIC TASK

Figure 1. Autistic < Non-Autistic
($t(38) = -2.097$, $p = 0.043$, $d = 3.845$)

Figure 2. No sig. difference between groups
($p = 0.819$)

Significant cross-task difference:
NonAu group who completed the dialogic task >
both the Autistic and NonAu groups who completed the monologic task
($F(3,64) = 6.974$, $p < 0.001$, $\eta^2 = 0.246$)

This finding remained significant even after statistically controlling for age, CELF-5 scores, and total number of word tokens

Discussion

- Findings suggest that "*um*" use differs depending on the nature of the discourse (**i.e., monologic v. dialogic**), ***and not diagnosis.***
- In dialogic exchanges, autistic participants used "*um*" similarly as their NonAu peers, suggesting they recognize this marker's usefulness as a turn-taking device.
  - This function is unnecessary in monologic contexts and is, thus, used less.
- Further, all participants produced relatively few "*um*" tokens in both contexts (< 1 - 3% of all word tokens), suggesting that **"*um*" use may not be as useful of a marker of autism as previously suggested**.[3,4,5]
- Therefore, researchers should **carefully consider the nature of the discourse context** when interpreting between-group differences of "*um*" use.

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