







### BACKGROUND



- 30% of children with autism spectrum disorder (ASD) are minimally verbal (MV).
- We don't yet know which MV children are preverbal and which will remain MV. LVIS: designed to assess communication in MV
- children with ASD.
- Understanding predictors of MV will illuminate processes critical to language development more generally.

### **OBJECTIVES**

- 1. To assess convergent and divergent validity of the LVIS in relation to gold-standard measures of language ability.
- To assess the relative difficulty of the items on the LVIS.

METHODS										
		ASD				DT D		ТЪ		
Participants		Minimally Verbal		Verbal						
		n	Mean (SD)	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)	
Age (years)		31	4.1 (2.0)	33	4.8 (1.3)	28	1.9 (1.1)	55	3.1 (1.5)	
	Sex (F/M)	31	4/27	33	8/25		11/17		21/34	
PLS	Receptive Age Equivalent (mos)	21	21.7 (18.5)	29	38.4 (21.4)	4	30.3 (5.3)	32	57.2 (12.7)	
	Expressive Age Equivalent (mos)	21	20.1 (18.9)	28	37.3 (17.6)	4	27.3 (5.9)	32	56.1 (12.9)	
Vineland	Communication Standard Score	16	63.2 (16.8)	24	81.8 (14.8)	27	81.1 (9.4)	55	102.8 (11.1)	
	Daily Living Standard Score	15	71.9 (19.8)	24	79.8 (13.3)	26	87.5 (6.3)	55	100.2 (10.8)	
	Social Standard Score	14	63.9 (12.0)	24	75.3 (9.5)	26	88.4 (7.0)	55	100.0 (13.1)	
	Motor Standard Score	15	84.8 (15.8)	23	79.5 (8.0)	26	88.6 (9.3)	54	98.7 (11.1)	
ADOS	Social Affect	25	15.1 (5.3)	30	12.0 (4.7)					
	Repetitive Behaviors	25	5.3 (2.3)	30	3.4 (1.8)					
	Comparison Severity Scores	22	7.5 (2.0)	30	6.9 (2.3)					

## Low-Verbal Investigatory Survey for Autism (LVIS) – an Initial Validation Inge-Marie Eigsti<sup>a</sup>, Elena J. Tenenbaum<sup>b,c,d,e</sup>, Adam Naples<sup>f</sup>, Richard N. Jones<sup>d</sup>, Stephen J. Sheinkopf<sup>c,d,e,f</sup>

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The LVIS provides a valid measure of communicative competence in minimally verbal children with ASD.

# Joint attention is critical for communication.

### RESULTS

- Principal components analysis was used to identify 5 factors and a composite score.
- Scores were calculated as sum of items in that factor.



### **ACCESS THE LVIS (It's FREE!)**



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The LVIS is highly correlated with existing gold standard measures of communication within and across groups.



<b>Divergent Validity</b>	All	
Vineland Daily Living	.39	
Vineland Socialization	.42	
Vineland Motor Skills	.19	

### **RELATIVE DIFFICULTY**

Item characteristic curves based on Item Response Theory. Figure at bottom shows that response to joint attention is most basic of nonverbal communication skills.









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**CONVERGENT/DIVERGENT VALIDITY**