

**Supplemental Material S1.** Concurrent validity by automated index and sibling group, covarying maternal education.

Variable	Overall		Sibs-autism		Sibs-NA	
	Exp Lang	Rec Lang	Exp Lang	Rec Lang	Exp Lang	Rec Lang
AVA raw score	.19	.03	-.05	-.01	.16	-.06
RVC	.14	.06	.19	.18	-.13	-.19
Child Vocalization Count	.19 <sup>†</sup>	.29	-.13	.24	.40 <sup>*</sup>	.33 <sup>*</sup>
Child Vocalization Duration	.15 <sup>†</sup>	.26	-.23	.20	.44 <sup>**</sup>	.34 <sup>*</sup>
IVD	-.35 <sup>*</sup>	-.22	-.47 <sup>*</sup>	-.32	-.15	-.06
ACPU-C+V	.03 <sup>†</sup>	.04	-.16	.02	.28	.18

*Note.* Sibs-NA = infants with typically developing older siblings; Sibs-autism = infants with at least one older sibling diagnosed with autism; AVA = Automated Vocalization Analysis raw score (Richards et al., 2017); RVC = Reciprocal Vocal Contingency score (Harbison et al., 2018); IVD = Infraphonological Vocal Development score (Woynaroski et al., 2017; Yoder et al., 2013); ACPU-C+V = Average Count Per Utterance-Consonant+Vowel score (Woynaroski et al., 2017; Xu et al., 2014); Exp Lang = expressive language aggregate; Rec Lang = receptive language aggregate.

<sup>†</sup>Association was moderated by Sibling group ( $p$  for interaction term in multiple regression analyses  $< .1$ ).

<sup>\*</sup> $p < .05$ . <sup>\*\*</sup> $p < .01$ .