Restricted interests in autism with versus without speech onset delay:
the importance of perceptually versus thematically organized interests

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BACKGROUND

Recent findings (Bonnel et al., 2010; Barbeau et al., 2013) suggest that autistic people with vs without speech onset delay may differ in the perceptual vs nonperceptual nature of their ability peaks.

Similarly, neuroimaging findings show that autistic people with vs without speech onset delay differ in the perceptual vs linguistic nature of cortical areas displaying increased activation during the presentation of visual and auditory material (Samson et al., 2014).

OBJECTIVES

To explore whether autistic adults with vs without speech delay also differ in the perceptual vs thematic nature of their restricted interests.

METHODS

Participants	AS-NoSOD	AS-SOD	Control
Sample size (sex)	15 (7M, 8F)	15 (13M,2F)	15 (10M, 5F)
Age	32,26 (6,54)	27,53(6,53)	26,73(6,39)
RPM raw score (percentile)	55 (80,66)	51,6 (64,33)	52,6 (67)
WAIS-IV IQ (percentile)			
FSIQ	123,36 (88,02)	91,64(39,81)	118 (75)
VIQ	130,75 (95,04)	95,28(41,71)	119,5(83,06)
PIQ	115 (77,33)	103,07(55,8)	117 (75,7)
ADI-R mean score (cut-off)			
Social	21,4 (10)	20,6 (10)	1,53 (10)
Communication	21,4 (8)	22,33 (8)	1,06 (8)
Repetitive behavior	7,66(3)	8,8 (3)	2,66 (3)

RPM: Raven's Progresive Matrices. WAIS: Wechsler Adult Intelligence Scale. FSIQ: Full-Scale IQ. VIQ: Verbal IQ. PIQ: Performance IQ. ADI-R: Autism Diagnostic Interview-Revised

30 autistic spectrum (ADI & DSM-IV criteria) adults were divided into AS-SOD (speech onset delay; N=15) or AS-NoSOD (no speech onset delay; N=15) subgroups.

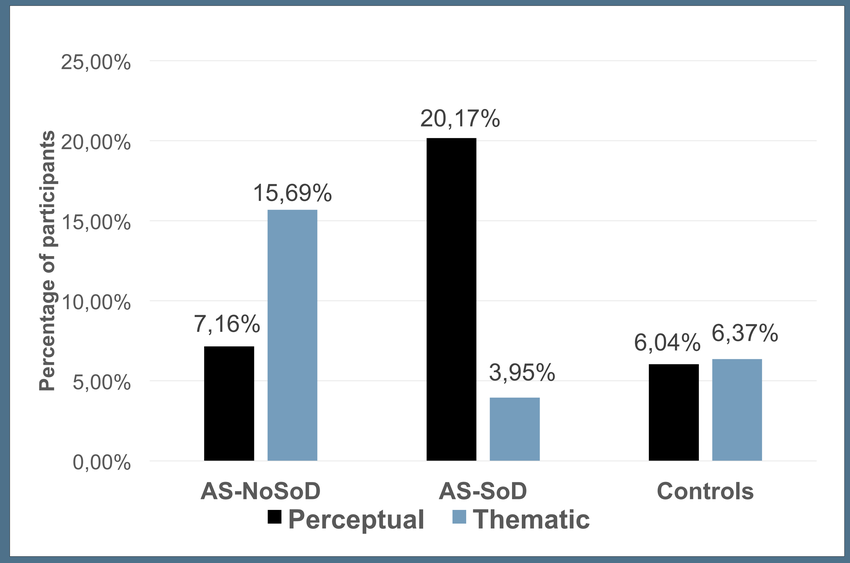
Speech onset delay was defined as no first words before 24 months & no first phrases before 33 months.

15 typical adults presenting with restricted interests but no signs of autism were also recruited as a control group.

All groups were matched on age & Raven's Progressive Matrices (Raven, 1981).

Information about restricted interests was obtained via 19 questions based on the Yale survey of special interests (Klin & Volkmar, 1996) & a semi-structured interview by Mercier et al. (2000). Data were qualitatively analyzed with NVivo 10 textual analysis software to segment & categorize the content of verbal reports provided by participants.

RESULTS



Proportion of thematically-organized interests (interests with rich semantic organization) was significantly higher in AS-NoSOD vs both AS-SOD & typical controls.

Proportion of perceptually-organized interests (interests based on accumulation of factual information e.g., historical dates, license plates) was significantly higher in AS-SOD vs both AS-NoSOD & typical controls.

CONCLUSIONS

Restricted interests in autism differ according to speech development history: thematically-organized interests were increased in AS-NoSOD, while perceptually-organized interests were increased in AS-SOD. These differences raise questions about the nature, causes, and consequences of speech delays in autism.

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