

Autism Spectrum Disorder (ASD) is a neurodevelopmental disability characterized by focused interests, repetitive behaviors, and social communication differences (APA, 2013). Many autistic individuals show differences in the production and perception of natural speech (Paul et al., 2005a), particularly with respect to speech prosody [i.e., changes in speech duration, loudness, and pitch] (Mann & Karsten, 2023), which plays an important role in social communication for autistic individuals (Mann & Karsten,

and rhythm of speech (Asperger, 1944; Kanner, 1943), characteristics which are still considered diagnostically today [see Autism Diagnostic Interview-Revised (ADI-R; Lord et al., 1994)]. In the subsequent sections of this introduction, we will discuss various aspects of prosody in autism. Speech features exhibited by autistic individuals and how these differences impact the perception of social competence. We will examine the role of parents as early models of speech and communication for both autistic and non-autistic children and discuss how adults adapt their speech patterns based

(Bone et al., [2012](#))

representative 2 substest estimate was used. One non-autistic child was more than 2 standard deviations away from the group mean. The remaining samples of 18 non-autistic and 21 autistic

questionnaires online and parent-child dyads attended a single lab appointment. During their visit, dyads completed a Lego building task together and cognitive testing (WASI-II) was administered. During the Lego task, parent-child dyads were asked to work together by following instructions to build a structure. The interaction was video recorded, and the data presented in this manuscript were extracted from these video recordings. The video recorder was set up approximately 6 feet from the dyad, but the position was not precisely controlled.

Measures

Autism Diagnosis

Children were diagnosed with autism spectrum disorder (ASD) by two clinical

Social Competence

Caregivers completed the MSCS (Yager & Iarocci, 2013), which assesses 7 domains of social competence: social motivation, social inferencing, emotion regulation, nonverbal sending skills, demonstrating empathic concern, social knowledge, and verbal conversation skills. Parents also completed a self-report version of the MSCS. The overall score created by combining all subscales is used in the current study. The MSCS has been shown to have good internal consistency ($\alpha > 0.84$), as well as strong convergent validity with other tests of social competency (social responsiveness scale, $r = -.89, p < .001$; Yager & Iarocci, 2013).

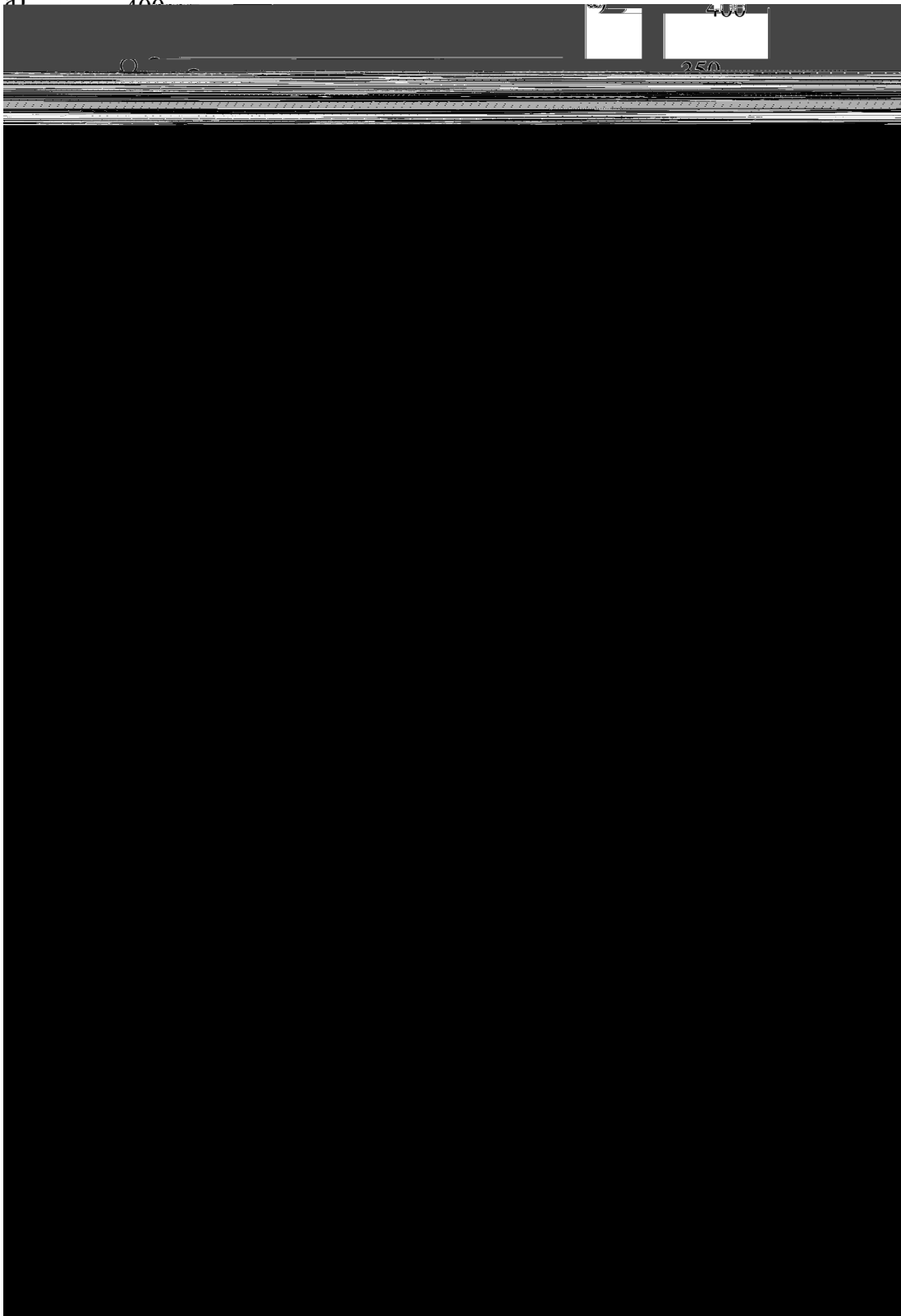
Data Analysis

Recordings of mother-child interactions ranged from 615 to 3,648 s, with an average length of 1,473 s. Audio was extracted from the video recordings of each mother-child

scores could be accounted for ($R^2 = 0.779$, $F(6, 11) = 6.495$, $p = .004$; see Table 2).

Of the 11 variables, the most significant predictor was age, $\beta = 39.302$, $SE = 12.242$, 95% $CI [12.357, 66.246]$, $p = .022$; the next most significant predictor was gender, $\beta = -10.191$, SE

a)



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(FERENCE & CURTIN, 2013).

Future work should aim to elucidate whether pitch modulation in terms of their communicative function. Alternatively, it is possible that the lack of a meaningful relationship between prosodic characteristics and social competence in autistic children is commonly reported (Hubbard et al., 2017; Nadig & Shaw, 2012; Paul et al., 2005a, b; Shribeg et al., 2001), autistic children commonly reported (Ashwin et al., 2015; Greene et al., 2011; Jellema et al., 2009; Lott-Sandkamp et al., 2023), perspective-taking (Bamicha & Drigas, 2022).

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