Poster Session #3 – Saturday, May 31 at 8:30 a.m. Community Terrace

PS3S01

Does Retrieval Practice Promote Word Leaning in Autistic Children? An Initial Investigation

Eileen Haebig; Louisiana State University
Laurence Leonard; Purdue University

Retrieval-based practice has been found to dramatically enhance learning. Although studies have examined retrieval practice in a few pediatric special populations and found its utility in promoting learning, no previous study has examined whether retrieval practice promotes learning in autistic children. We examined two learning conditions, repeated study and repeated spaced retrieval, to examine word learning abilities in young autistic children. Seven autistic children participated in the current study (mean age 5.27 years). The children had normal nonverbal cognition and all but one had impaired structural language abilities. Four words were taught using a repeated study and four through repeated spaced retrieval. The children demonstrated learning in both conditions, with near-ceiling performance on the receptive measure and more modest learning demonstrated in the expressive measures. Though performance tended to be higher in the RSR condition relative to the RS condition, these differences were not statistically significant. This initial investigation highlights the need for further research into the role of retrieval practice in leaning in autistic children, with a particular focus on examining learning of word meaning.

PS3S02

Predicting Deaf and Hard of Hearing Children's Syntactic Skills from Vocabulary Lexicons

Adriana Valtierra; Vanderbilt University
Mary S. Dietrich; Vanderbilt University and Vanderbilt University Medical Center
Julie Bustos; Kansas State School for the Deaf
Angie Walker; Vanderbilt University Medical Center
Jena McDaniel; Vanderbilt University School of Medicine

Identifying which deaf and hard of hearing (DHH) children will demonstrate below-age-expected language skills is an important step towards improving the language outcomes of this population. Previous research suggests that early vocabulary size, in particular verb lexicon derived from caregiver-report or language sampling, is a strong predictor of children's later syntactic skills. The current analysis evaluated this relation in English-speaking DHH children to identify the strongest predictor of which children are likely to warrant language intervention.

This study involved secondary analysis of a subset of 29 DHH children participating in a longitudinal study on language development. We used several hierarchical regressions to compare the variance in later syntactic skills explained by noun and verb lexicons derived from (a) caregiver-report and (b) language samples at earlier ages. Results suggest that

for nouns, language sample-derived lexicons do not account for additional variance in syntactic skills beyond caregiver-reported lexicons. However, for verbs, lexicons derived from language sampling and caregiver-report may both be needed to predict later syntactic skills. Clinical and research considerations are discussed.

PS3S03

What Do Stories Tell Us About Language and Behavior in School-age Children? A Cross-Disorder Comparison

Alexandra Hollo; West Virginia University

Children with or at risk for emotional and behavioral disorders (EBD) often struggle with higher-order language needed to function academically and socially. In fact, children with developmental language disorders (DLD) are often indistinguishable from those with EBD on standardized global language assessments. However, narrative assessment offers a promising means of differentiating these groups in meaningful ways. The decontextualized nature of storytelling requires children to integrate complex linguistic and cognitive skills such as using complex syntax and abstract vocabulary for sequencing, perspective-taking, emotion recognition, and problem solving. In addition to standardized measures from story retell and generation tasks, language sample analysis may provide unique insight into children's social-cognitive skills. Therefore, the current study compares narratives among three age- and gender-matched groups of school-aged children: with or at risk for EBD, with DLD, or with no previously identified disabilities (ND). Results point to differential use of internal state language as a potential avenue for distinguishing the groups and developing tailored assessments and interventions.

PS3S04

Exploring Barriers and Facilitators to Intervention for SLPs who Serve Adolescents with Developmental Language Disorders

Amy Peterson; University of Wyoming
Kelly Farquharson; Florida State University
Erin Bush; Florida State University

Despite a dearth of intervention specifically designed for adolescents with developmental language disorders (DLD), speech-language pathologists (SLPs) feel confident in their ability to support student success (Peterson et al., 2020; Peterson et al., 2024). Implementation science studies the application of innovations investigated in controlled research settings and adoption into evidence-based practice in real-world settings (Damschroder et al., 2022; Fixsen et al., 2019). To explore how SLPs are currently meeting the needs of older students, this session explores the barriers and facilitators to best practice through a national survey. Participants (n = 118) responded to questions about their experience, caseload, and how practice is influenced by internal (e.g., ability to adapt programs, clinical expertise) and external factors (e.g., administrator knowledge of the SLP role, colleague support). Participants categorized 12 job factors as facilitators or barriers to practice and answered an open-ended question about the most significant

factor in each area. Data analysis is ongoing utilizing the Consolidated Framework for Implementation Research (CFIR; Damschroder et al., 2022).

PS3S05

Key Linguistic Predictors of Developmental Language Disorder Risk in Bilingual Assessment

Anna Soares; University of South Florida
Maria Adelaida Restrepo; University of South Florida
Shelley Gray; Arizona State University

Developmental Language Disorder (DLD) affects 7–10% of children in the U.S., with bilingual children facing diagnostic challenges due to difficulties distinguishing language differences from disorders. The Spanish Screener for Language Impairment in Children (SSLIC) was developed to improve diagnostic accuracy in Spanish-English bilinguals. However, the validity was established with a measure that overidentified children. This study examined five SSLIC subtests with a new cut score—Sentence Repetition, Morphology, Rapid Automatized Naming (RAN), Nonword Repetition, and Antonyms— to identify the most predictive items for DLD risk. Logistic regression and discriminant function analyses identified Sentence Repetition and RAN as the strongest subtests for identifying children at risk for DLD, while items within Sentence Repetition and Morphology emerged as the most significant predictors. This reduced set of SSLIC items achieved 85% classification accuracy, demonstrating strong diagnostic potential. Findings contribute to refining SSLIC, enhancing classification efficiency and DLD identification in bilingual children.

PS3S06

Characterizing Error-Monitoring in Children with Developmental Language Disorder

Annika Schafer; MGH Institute of Health Professions
Asiya Gul; MGH Institute of Health Professions
Lauren Baron; MGH Institute of Health Professions
Ziyi Cao; MGH Institute of Health Professions
Shivani Patel; MGH Institute of Health Professions
Kelsey Black; MGH Institute of Health Professions
Yael Arbel; MGH Institute of Health Professions

Introduction: Learning language is a process that necessarily includes both the commission and correction of errors; therefore, language learning relies on internal error-monitoring abilities and external feedback processing. In the 7% of children who have Developmental Language Disorder (DLD), language-learning is impeded. Previous research has established atypical neural differentiation to error-commission in children with DLD, and this research seeks to further characterize error processing in DLD. Research questions: This investigation will aim to (1) characterize the relationship between neurophysiological, behavioral, and parent-report measures of EF and error-

monitoring, and (2) compare neurophysiological differences between high and low performers on an inhibition task.

Methods: 123 school-aged children (38 with DLD; 85 with TD) completed a speeded-response Flanker task while their brain activity was recorded using EEG.

Analysis: After analyzing EEG data using EEGLAB and MATLAB and behavioral data using E-Prime and Excel, the authors conducted ANOVA, regression, and correlation analyses on R to characterize the error-monitoring system in children with DLD.

PS3S07

Influence of Maternal Education on Treatment Success in Children with Developmental Language Disorder

Arena Haught; University of Arizona
Elena Plante; University of Arizona

One successful intervention for children with Developmental Language Disorder is conversational recast, which is used for the correction of grammatical errors. We are interested in seeing if mother's education influences children's outcomes in treatment, given that literature has found that mother's education level impacts young children's language skills. This study included 57 children with Developmental Language Disorder, ages 48 months to 74 months. Mother's educational levels varied between 11 years to 17 years. This was used as a proxy for socio-economic status as mother's education level has been found to have a stronger relation to language development than other aspects of SES. We correlated mother's education with an effect size that represented individual treatment gains to determine the role of this component of socio-economic status on treatment outcomes. A low Bayesian correlation of .018 and a Bayes Factor of 5.998 provided moderate evidence supporting the idea that SES was not associated with treatment outcomes.

PS3S08

Effects of Vocabulary Intervention on Comprehension for 3rd Grade Students with Language Learning Disorders

BeckyAnn Harker; Monmouth University

There has been much research to support the use of explicit instruction in vocabulary to improve comprehension in elementary school students, but little that focused on students with developmental language delay (DLD) or specific learning disabilities (SLD) in reading. This study was a repeated acquisition design (RAD) of three 3rd grade students with language learning disorders (LLDs; DLD and/or SLD). Each week, for eight weeks (three weeks of baseline and five weeks of treatment), students received explicit instruction on a different set of vocabulary words to determine the effects on word learning and comprehension of passages using those words. Results found significant

gains in word learning, but no significant effects on comprehension. Following a maintenance phase, students lost knowledge of the learned words, though they demonstrated a small gain over the original pretest knowledge of those words. The negative effects on comprehension could be due to the assessment measure or the need for more than just vocabulary interventions (e.g., background knowledge and/or sentence structure) for this population of students. No funding was obtained for this study.

PS3S09

Inhibitory Control and Oral Reading in Down Syndrome: A Preliminary Analysis

Brittany Ciullo; University of Massachusetts Amherst
Jill Hoover; University of Massachusetts Amherst
Audra Sterling; University of Wisconsin Madison
Amy Banasik; University of Wisconsin Madison
Emelia Ferguson; University of Massachusetts Amherst

Children with Down syndrome (DS) exhibit a unique profile of strengths and challenges. While they demonstrate a relative strength in inhibitory control within the domain of executive functioning, they experience significant challenges with word reading. The relationship between inhibitory control and word reading in DS is not well understood. The present study aims to fill that gap by examining the relationship between a lab-based inhibitory control measure, a parent-report measure of executive functions, and an oral reading task. Twenty-four participants with DS (ages 9-17) completed the Flanker Inhibitory Control Task, the Behavior Rating Inventory of Executive Functions (BRIEF) questionnaire, and the NIH Toolbox Oral Reading Assessment. Preliminary findings suggest age-appropriate inhibitory control, while Oral Reading scores were significantly below average. We will examine individual variability to further explore the relationships between the inhibitory control measures and oral reading accuracy. This study has significant implications for intervention and offers insights into the unique strengths and challenges of children with DS.

PS3S10

Open-source tools for language environment analysis of Spanish-speaking families

Caitlyn Slawny; University of Wisconsin – Madison
Mandy Maguire; University of Texas – Dallas
Margarita Kaushanskaya; University of Wisconsin – Madisonr
Carlos Carlos Benítez-Barrera; University of Wisconsin – Madison

Wearable microphones, such as the Language ENvironment Analysis (LENA), are commonly used to study children's language exposure by quantifying speech in natural environments. LENA was developed and optimized for American English and has been validated for other languages, such as Spanish. However, LENA has limitations due to high cost and mandatory use of proprietary recorders and software, which restricts accessibility. Open-source automated analysis tools might offer an alternative, providing more accessible and accurate measures as they are free and trained on multiple languages.

Correlations between LENA and open-source automated analyses have revealed similar key child, female adult, and male adult measures in English. However, it remains unknown whether this finding extends to Spanish. In this study, we compare LENA analyses to analyses performed using two open-source automated analysis tools—Voice Type Classifier (VTC) and Automatic Linguistic unit Count Estimator (ALICE)—on recordings obtained from thirty-nine Spanish-speaking preschoolers. Analyses are ongoing. The results will determine whether VTC and ALICE can serve as viable alternatives to the LENA system for estimating language exposure in children from Spanish-speaking backgrounds.

PS3S11

Mind the Gap: Understanding How a Speech-Language Pathologist Grammar Knowledge Affects Assessment

Daniel Ibarra; Texas Christian University
Emily Lund; Texas Christian University

Approximately half of speech-language pathologists (SLPs) in the United States work in a school-based setting (ASHA Membership Profile, n.d.; Ireland et al., 2024). SLPs are required to diagnose speech-language impairments while using assessment like the Clinical Evaluation of Language Fundamentals, 5th Edition's (CELF-5). However, SLPs require grammatical knowledge to score language assessments, yet research suggests variability in SLPs explicit grammatical knowledge, potentially affecting assessment scoring (Brimo & Melamed, 2017; Good, 2019). This study explores the SLPs' ability to accurately and consistently score the Formulated Sentences subtest of the CELF-5 using their grammatical knowledge and the CELF-5 manual as well as the impact of scoring variability on overall CELF-5 Core Language scores. This study included school-based SLPs who use the CELF-5. SLPs completed an online questionnaire requiring participants to score three separate Formulated Sentences of the CELF-5. Data contributes to our understanding of how SLP grammar knowledge affect scoring a norm-referenced assessment frequently used for eligibility determinations. This project is funded by Project Intersect a doctoral training grant funded by the Office of Special Education Programs (OSEP).

PS3S12 - WITHDRAWN

Investigating Narrative Skills using responses from questions: An insight into Macro and Micro structures of Language and Working Memory.

Diya Nair; University of Western Ontario
Lisa Archibald; University of Western Ontario

Narrative abilities refer to the telling of a story or an event. Despite the seeming simplicity of the task, narrative skills require complex language skills. Corroborating evidence for the role of complex language in narratives comes from findings that better narratives are produced by children performing higher on language tests (Paris and Paris, 2003; Silva et al., 2014). In narratives, story elements must be organized in a coherent way (known as macrostructure) in order to make sense of the story told and using sophisticated linguistics devices to improve the clarity of the story (known as

microstructure) such as conjunctions, mental verbs and clearly referenced pronouns. Questions focused on macrostructure asked prior to narrative production have been reported to result in increases in macro- but not microstructure elements in 4-6 year olds (Silva and Cain, 2019). In contrast, Nair et al. (2024) reported that questions, irrespective of focus (macro-or microstructure), led to an increase in microstructure elements. The current study examined the relationship between macro- or microstructure question response accuracy, language skills, working memory abilities and children's quality of narratives.

PS3S13

Reciprocal Influences of Caregiver Language Facilitation Strategies and Child Communication on Caregiver-Child Interactions

Emily Harrington; University of Illinois Urbana-Champaign
Ann Kaiser; Vanderbilt University
Megan Roberts; Northwestern University
Pamela Hadley; University of Illinois Urbana-Champaign

Although caregiver-implemented interventions have a positive impact on caregiver input and child language outcomes, the mechanisms underlying these sustained changes remain unclear. This study examines how child communication characteristics shape caregiver use of language facilitation strategies and how these strategies, in turn, influence children's real-time communication during caregiver-child interactions (CCXs). All dyads (n=105) were participants in a clinical trial of children at high risk for developmental language disorder. Baseline CCXs were transcribed and coded for caregiver language facilitation strategies and child communication variables when children were 30 months of age. LASSO regression analyses revealed that children's communicative rate and verbal imitation rate influenced caregiver use of vocabulary strategies, while communicative rate, intelligibility, and vocabulary diversity influenced sentence strategies. Mixed-effects logistic regression demonstrated that caregiver strategy use significantly increased children's likelihood of spontaneous imitation on the next turn. These findings support a transactional perspective and warrant future consideration of reciprocal influences in CCXs as a potential driver of long-term intervention effects in caregiver-implemented interventions.

PS3S14

"Frog, um where are you?": Factors that support fluency in preschoolers

Emma Libersky; University of Wisconsin-Madison
Grace Whelan Tweedt; University of Wisconsin-Madison
Margarita Kaushanskaya; University of Wisconsin-Madison

Speech disfluencies are a common feature of spontaneous language, occurring approximately five times per 100 words produced. Lexical and syntactic factors contribute to disfluency in adults, but less is known about the factors that underlie disfluency in children. Moreover, the impact of individual differences in language skills

and working memory on disfluency remains poorly understood. We examined disfluency production in English-speaking preschoolers, asking how utterance-level (word count and word frequency) and subject-level (language skills and working memory capacity) factors contribute to disfluency production at the utterance level. Preliminary findings indicate that disfluencies are more likely in utterances that are longer and contain less common words, consistent with the adult literature. This work was supported by NIH F31DC021386, NIH R01DC020447, and NSF BCS 2314555.

PS3S15

Influence of linguistic load in a highly scaffolded priming task on production errors in children with developmental language disorder and their typical peers

Erica Lescht; Boys Town National Research Hospital
Lisa Goffman; Boys Town National Research Hospital

Children with developmental language disorder (DLD) show deficits in language production, especially morphosyntax. Other developmental domains, such as motor skill and speech sound accuracy, are also affected. In the present experiment, children with DLD and typical development (TD) were asked to generate, via a highly scaffolded priming task, simple subject-verb-object sentences. Prior results showed that the relatively heavy processing load obligated by this task affected speech motor processing, as indexed by increased articulatory variability. One aim of the present study was to evaluate how this increased load affected sensitivity, accuracy, and variability in language production as sentences were generated in response to a prime. A second aim was to evaluate relationships between syntactic priming performance and speech, motor, and language skills. Children with DLD and TD showed difficulty with this task, and those with DLD especially with syntactic components. No significant relationships were found between any of the speech, motor, and language clinical measures and syntactic priming in children with DLD. This work was funded by NIDCD R01DC016813 (PI: Goffman), R01DC004826 (PI: Goffman), and T32DC000013 (PI: Chatterjee; Trainee: Lescht).

PS3S16

A Novel Language Assessment Battery in Czech: Initial Evidence of Validity

Filip Smolík; Inst. of Psychology, Czech Academy of Sciences
Gabriela Málková; Charles University
Miroslava Schöffelová Nováková; Charles University
Alžbete Zemánková; Charles University

There has been no comprehensive diagnostic test of language development available in the Czech Republic until recently, and only few focused tools that could be used to examine verbal development. Assessment of language has often been based on verbal components of IQ scales such as the WISC. We report on the development of a novel battery for assessing language and pre-reading skills, including measures of receptive vocabulary, sentence comprehension, morphological production, nonword and sentence repetition, automatized naming, and phonological awareness. The battery was normed on a sample of 800 children aged 3 to 7, providing practitioners with a comprehensive

method focused on the age range when communication delays and disorders become clearly apparent, and when decisions about the school entry must be made. We report on the internal validity of this new tool, as well as some preliminary evidence of criterion validity. The method provides an opportunity to examine the current diagnostic practice in Czechia, which is based primarily on qualitative clinical judgment and not norm-referenced tests.

PS3S17

Bilingual Educators and Speech-Language Pathologists Perspectives of Bilingual Learners' Language Characteristics

Janelle Flores; University of Houston
Anny Castilla-Earls; University of Houston

Bilingual learners remain over-underrepresented in special education services (Ortiz et al., 2020; Hulse & Curran, 2020). While there are typically referral procedures in place to mediate this misrepresentation, few studies investigate the underlying causes that contribute to this disproportionality. This qualitative study aimed to identify the language characteristics of PK- 5th-grade bilingual learners considered for pre-referral and evaluation for speech-language services. Importantly, research that explores bilingual learners' language characteristics from the perspective of bilingual educators (BEs) and speech-language pathologists (SLPs) is sparse and does not include both disciplines. Bilingual learners' language characteristics were obtained via semi-structured open-ended interviews with BEs (n = 5) and SLPs (n = 5). While BEs broadly described bilingual learners' language characteristics, SLPs used precise descriptions. Preliminary thematic analyses identified these common bilingual learners' language characteristics: difficulties communicating, meeting developmental milestones, syntax (sentence structure), and limited vocabulary. These characteristics will assist in developing vignettes of bilingual learners for use in a broader study. By addressing this identified research gap, this study is crucial for expanding knowledge across disciplines and for improving culturally responsive prereferral-to-evaluation practices.

PS3S18

Recent over frequent: Autistic children demonstrate hyperplastic word learning profile compared to neurotypical peers

Janine Mathee-Scott; Michigan State University
Kathryn Prescott; University of Connecticut
Jenny Saffran; University of Wisconsin-Madison
Susan Ellis Weismer; University of Wisconsin-Madison

Autistic children demonstrate differences in word learning, though the mechanisms underlying these differences are largely unknown. Prediction-based theories of autism may elucidate some of these underlying mechanisms. One theory posits that autistic children overweight novel experience over aggregated prior experience (known as hyperplasticity). Given that children learn words in their natural environments, where input may be inconsistent, difficulty integrating inconsistent input might have profound impacts on word learning. The current study examined how difficulties aggregating

inconsistent input might impact novel word learning in ASD. Twenty-nine autistic and 32 neurotypical (NT), cognitive-ability-matched children participated in an eyegaze task. Four novel words were taught, two with the same label at every exposure (consistent condition) and two with inconsistent labels on the final presentation (inconsistent condition). Both groups were able to learn novel words that were labeled consistently. Groups differed significantly in their learning of words labeled inconsistently. Whereas NT children looked toward the most cumulatively-probable object on inconsistent trials, autistic children were disrupted by the recent exposure, demonstrating hyperplasticity of learning (i.e., overweighting of recent over cumulative experience). Funding: NIDCD R01DC017974; NIDCD F31DC020902; NIDCD F31DC020901.

PS3S19

Parent and Child Self-Report of Bilingual Experience and Proficiency: Patterns by Risk Status

John Gallagher; San Diego State University, University of California, San Diego
Amy Pratt; University of Cincinnati
Liz Peña; University of California, Irvine
Ashley Sanabria; San Diego State University

In bilingual language development, experience and proficiency data are crucial in characterizing individual child profiles. Recent evidence suggests that children's self-report of these variables is significantly related to direct assessment of their language skills (Castilla-Earls et al., 2022). However, the relationship between parent report and child self-report is unknown, particularly for children at risk for language disorders. In the proposed submission, we administered questionnaires probing (1) bilingual experience (2) proficiency in Spanish, and (3) proficiency in English from 400 bilingual Spanish/English children in Pre-K through 3rd grade and from their parents. Preliminary correlations show significant, small-to-medium effects between reporters on all three variables. Multiple regressions were conducted to predict each child-reported variable from the corresponding parent-reported variable and risk status for language disorders to determine if the relationship between parent and child self-report differs by risk status. The utility of child self-report of experience and proficiency in research – particularly among those at risk for language disorders – will be presented.

PS3S20

Stimuli characteristics as a factor of working memory accuracy and reaction time in developmental language disorder (DLD)

Joshua Bailey; University of Missouri,
Maya Snyder; University of Missouri
Caroline Larson; University of Missouri

Individuals with developmental language disorder (DLD) have lower verbal and nonverbal working memory relative to typically developing (TD) peers. This current study investigated how stimulus features rated along a continuum were associated with individual differences in accuracy and reaction time for TD versus DLD participants on

working memory tasks. Findings indicate that higher ratings of verbality were associated with better reaction time and accuracy in TD and DLD groups, but this effect did not change by group. These findings are surprising as verbal cognition is considered an area of relative weakness in those with DLD and visuospatial cognition and area of relative strength. Future analyses should be conducted to reveal whether by-condition analyses yield patterns more similar to those hypothesized to account for WM difficulties in DLD.

PS3S21

+Language is Medicine: A Culturally Tailored Early Intervention to Prevent Developmental Delay in Diné Toddlers (9-24 Months)

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Elizabeth Kushman; Johns Hopkins University
Jessica Meese; Johns Hopkins University
Leandra Espeseth; Johns Hopkins University
Lisa Martin; Johns Hopkins University
Lisa Jim; Johns Hopkins University
Julie Soap; Johns Hopkins University

American Indian (AI) toddlers aged 9-24 months experience high rates of developmental delay (DD), leading to long-term educational and health disparities. +Language is Medicine (+LiM) is a culturally tailored language nutrition intervention designed to support at-risk Diné (Navajo) toddlers through structured caregiver coaching sessions delivered by trained Tribal Home Visitors (THVs). This pilot pre-/post-intervention study recruited 27 toddler-caregiver dyads, and pilot study data will be used to inform a future randomized controlled trial (RCT) to evaluate improvements in language and social-emotional development, assess THV-administered standardized screenings, and gather caregiver feedback on intervention feasibility and acceptability. Rooted in Indigenous knowledge and evidence-based language facilitation strategies, +LiM aims to provide a scalable, community-driven approach to developmental screening and support, promoting culturally responsive early childhood interventions.

PS3S22

Exploring parent and teacher reports of language abilities in Spanish-English bilingual kindergarten children

Kerry Ebert; University of Minnesota-Twin Cities
Eugene Wong; University of Minnesota-Twin Cities
Elizabeth Johnson; University of Minnesota-Twin Cities
Lizbeth Finestack; University of Minnesota-Twin Cities

Parent and teacher reports may both contribute to the identification of developmental language disorder (DLD) in bilingual populations. There has been little consideration to date of whether optimal cutpoints on these tools vary across different groups of children. This study explores the impact of different potential cutpoints for DLD concern on the Inventory to Assess Language Knowledge (ITALK; Peña et al., 2018) in a group of

Spanish-English bilingual kindergarten children. We considered which children were identified as at risk of DLD by parents and by teachers, using cutpoints published with the ITALK as well as empirically-derived cutpoints for Spanish-English bilingual children published in a study of DLD identification (Pratt et al., 2022). The proportion of our sample identified as at risk of DLD differed notably across cutpoints and reporters. Associations between concern status and other English language assessment measures also differed across cutpoints and reporters. Parent and teacher reports remain promising components of bilingual language assessment, but optimal cutpoints may vary across different groups of bilingual children.

PS3S23

The relationship between social communication and expressive language among boys with Fragile X Syndrome

Latifatu Mohammed; University of Wisconsin-Madison
Marianne Elmquist; University of Wisconsin-Madison
Audra Sterling; University of Wisconsin-Madison
Jill Hoover; University of Massachusetts-Amherst

Fragile X syndrome is among the leading inherited causes of intellectual disability. Additionally, individuals with Fragile X syndrome (FXS) may have a co-occurring autism diagnosis. FXS is characterized by cognitive deficits, language difficulties, and challenges with social communication, which is essential for establishing relations and maintaining connections. Social communication is the ability to communicate with others in a given societal framework. Examining the relationship between social communication and expressive language will potentially help us explain how changes in these variables affect social communication in individuals with FXS. Participants included 15 boys with FXS between the ages of 9 and 16 years. In this study, social communication skills were measured using the Social Responsiveness Scale-2 (SRS-2). We measured expressive language using both standardized assessments and variables derived from language samples. To analyze the results, correlations were used to examine the strength of the relationship between social communication and expressive language variables.

PS3S24

Inter-Rater Agreement Across Speech-Language Pathologists on the TOLD-P:4 Oral Vocabulary Subtest

Lauren Acord; Vanderbilt University
Ashleigh Hayward; Vanderbilt University
C Melanie Schuele; Vanderbilt University School of Medicine

Many speech-language pathologists (SLPs) rely on norm-referenced assessments to make diagnostic decisions. Some states require a norm-referenced assessment be given as a part of a comprehensive assessment to determine eligibility as a "child with a disability." Whereas some assessment tasks are straightforward in their administration and scoring (e.g., picture vocabulary), other tasks have greater opportunity for examiner variance in

administration and scoring. Many SLPs assume commercially available norm-referenced assessments have been evaluated for reliability. Yet most assessments do not report rigorous evaluations of reliability. We evaluated inter-rater reliability of the Oral Vocabulary subtest from the Test of Language Development – Primary, 4th Edition (TOLD-P:4). We examined inter-rater agreement at the item level and the child level. The identified lack of inter-rater agreement argues for explicit manualized training to increase reliability on scoring tasks such as Oral Vocabulary and raises concerns as to the validity of clinical decisions based on the TOLD-P:4.

PS3S25

The Effect of Language Ability on Children's Cross-Situational Word Learning across Semantic Domains

Malvika Khandelwal; Boston University
Kimberly Crespo; Boston University

In the present study, we examined the effects of semantic density on CSWL performance in children with a range of language abilities. Participants completed a CSWL task in two conditions: high-density and low-density. In the high-density condition, children learned novel labels for low-frequency real animals (e.g., Crowned Sifaka). In the low-density condition, children learned novel labels for low-frequency real tools (e.g., cartridge puller). Word learning was tested immediately after exposure and after a 5-minute delay in a 2-alternative-forced-choice task. Preliminary results suggest that children's initial word learning may be influenced by the semantic density of a category. However, this advantage may be a short-term boost rather than a durable learning outcome. Results also suggest that the short-term retention of novel words may be more strongly linked to children's language ability than semantic density effects. Together, these findings suggest that the influence of semantic density and language ability on children's statistical word learning may be dynamic. This research was supported by NIDCD K23 DC022006 awarded to Kimberly Crespo and T32 DC013017 predoctoral fellowship awarded to Malvika Khandelwal.

PS3S26

The stability of automated communication variables derived from long-form audio recordings of young children with Down syndrome

Marianne Elmquist; University of Wisconsin - Madison
Andrea Ford; University of Cincinnati
Claudia Schabes; University of Wisconsin - Madison
Miriam Kornelis; University of Minnesota - Twin Cities
Lizbeth Finestack; University of Minnesota - Twin Cities
Audra Sterling; University of Wisconsin - Madison

We often gather spontaneous speech, language, and communication samples from audio recordings to demonstrate that communication interventions are effective. From these samples, we then derive measurements of key communication and language variables. In

hypothesis testing, we often presume these measurements are stable and reliable, infrequently moving beyond inter-rater reliability to confirm. Using long-form audio recordings from young children with DS, we empirically examined the contribution of two measurement conditions—(a) number of recordings (i.e., occasion) and (b) length of recordings (i.e., time)—to estimate of five communication variables: child vocal complexity, child vocal duration, child vocal frequency, child vocal reciprocity, and child vocal initiations. We conducted generalizability and decision studies to understand measurement stability of our current approach and when not stable, we calculated the number and length of recordings needed for future investigations. We will discuss measurement considerations when using long-form audio recordings to evaluate the efficacy of language interventions.

PS3S27

Predicting Late Talkers' Response to Treatment from Characteristics of Their Lexicon

Sarah Lynn Neiling; University of Cincinnati
Sarah Cretcher; University of Arizona
Kimberly Leon; University of Arizona
Heidi M. Mettler; University of Illinois at Chicago
Lynn Perry; University of Miami
Katrina Nicholas; Nevada State University
Mary Alt; University of Arizona

We wanted to better understand late talkers' lexicons and predict individual responses to treatment (RTT). We used data from 78   English-speaking late talkers who were part of the Vocabulary Acquisition and Usage for Late Talkers treatment program. Knowing that not all words are created equal, we classified individual children's expressive lexicons prior to treatment relative to the average age of acquisition (AoA) and verb:noun ratio, with the hypothesis that children who had lexicons with more 'advanced' lexical characteristics (i.e., later developing words and more verbs) would have better RTT. We defined response to treatment as the number of words a child learned per week on the MacArthur-Bates Communicative Developmental Inventory during their time in treatment. We used Bayesian linear regression to test our hypotheses and found a weakly predicted relation between average AoA and RTT, and no relation between verb:noun ratio and RTT. So, while the literature shows differences in the lexical make-ups of timely v. late talkers, the specific lexical differences we explored did not affect RTT for these late talkers. This work was funded by NIH-NIDCD grant R01DC015642.

PS3S28

Links Between Fine Motor and Language in Late Talkers

Megan Tennessen; University of Wisconsin-Madison
Marianne Elmquist; University of Wisconsin-Madison
Claudia Schabes; University of Wisconsin-Madison
Miriam Kornelis; University of Minnesota Twin Cities
Lizbeth Finestack; University of Minnesota Twin Cities
Audra Sterling; University of Wisconsin-Madison

Research indicates that motor and language development are interconnected. Motor skills lay an important foundation for language and communication development. Thus, delays or impairments in motor skills can have cascading effects on language development. However, limited research explores the extent to which fine motor and language development are related in later talkers. The current study included children who were late talkers and neurotypical between the ages of two and three years. We examined late talkers' fine motor and language profiles and the relationship between the two domains with a neurotypical group comparison using non-parametric statistics. Implications for intervention in children who are late to talk will be discussed.

PS3S29

Audiological Management and Language Outcomes in Deaf and Hard of Hearing Children with Additional Disabilities: A Systematic Review and Meta-Analysis

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Deaf and hard of hearing children with additional disabilities (DHH+) represent a significant yet under-researched population. Compared to their DHH-only peers, DHH+ children often experience greater challenges in language development and audiological management. However, outcomes remain variable, with studies' generalizability limited by small sample sizes and inconsistent participant classification.

This meta-analysis quantifies differences in language and audiological outcomes between DHH+ and DHH-only children and examines potential moderators contributing to variability. Using robust variance estimation, DHH+ children scored significantly lower for language (Hedges' g = -0.77, p < .01) and audiological outcomes (g = -0.46, p < .01) compared to DHH-only peers. The type of audiological outcome moderated this group difference. Other moderator effects, including language measure type, disability type and cognition, were not detected primarily due to limited and inconsistent reporting across studies.

Findings raise questions about whether current assessments accurately capture DHH+ children's abilities or impose limitations based on neurotypical expectations. More precise classification of disabilities and cognition is needed to improve research interpretability and clinical relevance.

PS3S30

Selecting Initial Targets for Grammar Therapy
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Basic research suggests that implicit knowledge about a native language can influence new learning. Children also learn about how to learn language in more general terms. We tested how children 'learn to learn' morphological markers in enhanced conversational recast therapy, in order to determine whether initially treating a grammatical morpheme that is already partially-acquired leads to quicker subsequent learning for a morpheme target that is rarely if ever used. Some children began intervention with a target that was partially acquired, then, after making progress, transitioned to a morpheme target that was not yet emerging. Other children began with a target that was not yet emerging. Children who began treatment with a partially-acquired target learned their second, non-emergent targets at a faster rate than students who started therapy with a non-emergent target. This suggests that initially training a grammatical morpheme that is already emerging may lead to quicker subsequent learning. This project was funded through R01 DC015642

PS3S31

Spoken Word Recognition in Adults with Developmental Language Disorders
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Developmental Language Disorder (DLD) is characterized by difficulties in using and learning language. Deficits at the lexical level, specifically related to the dynamics of spoken word recognition, have been suggested to underlie the broad range of challenges observed in DLD. Previous work on spoken word recognition has shown that children with DLD show less activation for target words and maintain heightened parallel activation for competitor words (i.e., words that sounds the same as the target) late in processing compared to their typically developing peers. The current study seeks to examine whether these early differences in spoken word recognition persist into adulthood. Participants heard a word and clicked the corresponding image from a field of four: the target (e.g., "candy"), a phonological competitor (e.g., "candle"), and unrelated items. Unlike findings in children, adults with DLD showed similar activation of targets and competitors compared to their peers with typical language development. Results suggest that the early differences in spoken word recognition observed in childhood thought to underlie DLD are resolved in adulthood. An explanation for this finding is discussed.

Step by Step: Developing an Objective Screener for Autism

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Autism, a neurodevelopmental disorder, can be diagnosed as early as 18 months but most children are diagnosed around 4-years old. A significant factor in delayed diagnosis is the lack of culturally and linguistically responsive screening tools. Most current autism screeners depend on subjective clinician and parent reports, which can introduce linguistic and cultural bias. In the present study, we aimed to design an objective, accessible, and culturally and linguistically responsive autism screening tool. We focused on motor skills, often an overlooked domain but autistic children across all backgrounds and genders are more likely to have motor differences compared to non-autistic peers. To date, we recruited 41 children, 16 autistic and 25 non-autistic. We recorded children walking and used OpenPose, an open-source posture modeling software, to extract gait parameters from the 2D videos. A machine learning model classified autism characteristics based on gait with 80-93% accuracy, 70-82% sensitivity, and 80-100% specificity. These preliminary findings demonstrate that video-based gait analysis is a promising tool for autism screening that is culturally and linguistically responsive. This work was funded by the Illinois Innovation Network.

The Reliability of an Expressive Grammatical Language Probe for School-Age English Speakers

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Reliable and valid tools for measuring specific language skills are necessary for impairment identification, eligibility determination, treatment target selection, and intervention outcome measurement. Finestack and colleagues (NCT04902508) developed an expressive grammatical language probe to measure four morphosyntactic abilities that are common areas of weakness for children with language impairment. In the current study, we investigated the internal consistency and inter-rater reliability of the instrument. We randomly assigned and administered two parallel versions of the probe to 222 English-speaking 5- to 8-year-olds.

Between the two parallel forms subscores, participants scored relatively similarly, with slightly greater scores on Probe B. Internal consistency assessed the covariance

among all test items with Cronbach's alpha. The internal consistencies of the parallel forms were 0.921 and 0.904, demonstrating excellent internal consistency across all items within each probe. Inter-rater reliability assessed the correlation of scores by two independent scorers with intra-class coefficients. Establishing the psychometric properties of the grammatical language probe will inform its future use in practice and research. This project was funded by NCT04902508.

PS3S34

Developmental Trends in Children's Performance Across Four Domains of Prosody

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Prosody, the rhythm and melody of speech, is crucial for communication but lacks comprehensive clinical assessment tools. This study examined developmental trends in prosody across four domains—non-linguistic, affective, grammatical, and pragmatic. Participants were 64 typically developing children ages 5–12 (data collection ongoing). Our findings showed that non-linguistic prosody tasks were mastered early with no developmental effects. Pragmatic and affective prosody improved with age, reflecting increasing cognitive demands. In contrast, grammatical prosody showed consistently high performance across ages, while lexical stress remained the most challenging with no clear developmental trends. These results refine our understanding of prosodic development and support SLPs in assessing prosodic impairments.

PS3S35 - WITHDRAWN

Increased Evidence that Teachers' Use of Talk Moves Impacts Students' Oral Language and Participation in the Classroom

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Talk in the classroom is important for leaning and developing complex language. Encouraging students to participate in classroom discussion can be challenging, despite the benefits of effective classroom talk. One tool to encourage classroom discussion is the use of talk moves, a set of sentence starters that can be used to support student complex language use and participation. This project provides a secondary analysis of an existing dataset of mathematics lesson transcripts in which teachers use talk moves with minimal training. Transcripts were coded for the use of talk moves, and measures of student complex language use and participation were calculated. Teacher talk move use was also compared to use of the initiation-response-evaluation sequence. Preliminary results indicate that, with minimal training, teachers use talk moves more than the initiation-response-evaluation sequence. Teacher use of specific talk moves and student measures of oral language complexity and participation are explored. Talk moves are a useful tool for encouraging classroom discussion and participation, which in turn supports student complex language development. Funding provided by Social Sciences and Humanities Research Council of Canada Postdoctoral Fellowship.

PS3S36

What did you notice there? Assessing caregivers' strengths and needs in identifying and describing communication attempts for children with delayed language skills

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Early intervention often includes caregiver coaching as a tool for shaping a child's language-learning environment. Although caregiver coaching is broadly effective, differences in the child, caregiver, and in clinician–caregiver alignment can contribute to individual differences in intervention outcomes. For example, to implement language-facilitation strategies (e.g., expansions) caregivers must recognize and respond to children's communication attempts. Underlying this skill is the need for clinicians to understand and support caregivers' interpretations of communicative attempts. Systematically quantifying caregivers' understanding of and skills in identifying adult and child communication is essential to individualized clinician scaffolding of language-facilitation strategies. The purpose of this study is to design and pilot the Behavioral Awareness Task (BAT), designed to evaluate caregivers' strengths and needs when identifying adult and child communication attempts. Specifically, we aim to explore whether behavioral awareness is associated with language interaction quality in caregivers with children who have delayed language skills with and without autism (2;6-4:0) as well as typically developing, language-matched peers. This study was funded by NIH/NIDCD (K23DC017763).

PS3S37

Statistical Learning with Inner Speech Suppression in Children with and without Developmental Language Disorder (DLD)

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Statistical learning (SL) is often considered implicit and automatic, but some argue that explicit processes (e.g., inner speech, working memory) may play a supplementary or distractive role in commonly used SL tasks. This study investigates how suppressing inner speech affects statistical learning of grammar-like sequences in children with Developmental Language Disorder (DLD).

Children with and without DLD (ages 8;0–12;1) completed an aXb/cXd grammar learning task, followed by an immediate and one-week follow-up test. Participants were randomly assigned to an inner-speech-suppression condition or a no-suppression control condition. The suppression group vocalized an irrelevant word (e.g., "tea") to inhibit inner speech.

Preliminary results from the immediate test showed above-chance learning in both groups in no-suppression condition. In the follow-up test, TD children improved, while DLD

children's performance dropped to chance, indicating impaired consolidation. Among children with TD, participants in the no-suppression condition performed better than those in the suppression condition. These results suggest a differential effect of suppression on SL performance in children with and without DLD.

PS3S38

The Diagnostic Contributions of Play-Based Language Sample Measures of Morphosyntax at 36 Months

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Tense and agreement morphemes (TAMs) present particular difficulty for children with language delays (LD) compared to typically developing (TD) peers. TAM skills are often assessed in research using measures like the Finite Verb Morphology Composite (FVMC) and Productivity Score (PS), but language samples in research settings are frequently longer than those feasible to collect in clinical settings. We ask whether the FVMC and PS derived from briefer, 15-minute language samples accurately identify 36-mo-old children with LD.

We found that 15-min-derived FVMC and PS measures had good sensitivity (76%) and specificity (75%) in identifying 36-mo-olds with LD vs TD when used together. Further, we found moderate associations between the FVMC and PS and the SPELT-2, a standardized measure of morphosyntactic skill (FVMC: $r=0.53$; $p=.00$; PS: $r=0.51$; $p=.00$). Relatively low associations were found between the FVMC and PS and the CELF-P3, a standardized measure of comprehensive language ability (FVMC: $r=0.39$; $p=.00$; PS: $r=0.39$; $p=.00$). Together, these findings suggest TAM measures calculated from 15-minute language samples contribute unique diagnostic information, supplementing information from standardized language assessments, especially the CELF-P3.

PS3S39 - WITHDRAWN

A Comparative Study of Narrative Intervention between One-on-one and Group Interventions for Developmental Language Disorders in Mandarin-speaking Children Aged 5-7

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Purpose: This study aimed to investigate narrative interventions for children with developmental language disorders (DLD) and compare the effectiveness of one-on-one (OI) versus group (GI) interventions.

Method: Twenty-eight DLD children (mean age 6;4 [years;months]) were divided into OI (n=9), GI (n=9), and control groups (n=10). We conducted a 4-week narrative intervention. We compared macrostructure (Story Structure, Structural Complexity), general microstructure (productivity, lexical/syntactic complexity), and fine-grained microstructure (Ba/Bei, Negation, Classifiers, Aspect markers).

Results: Both interventions significantly enhanced post-test performance, although the improvements were less pronounced at the 3-month follow-up. GI were more effective in enhancing general microstructure, whereas OI demonstrated greater efficacy in improving fine-grained microstructure and macrostructure.

Conclusion: Both one-on-one intervention and group intervention are effective for Mandarin-speaking DLD children, and one-on-one intervention are more comprehensive in enhancing the narrative abilities of children with developmental language disorders.

PS3S40

Mechanisms for Verb Learning: Exploring Syntactic Bootstrapping in Late Talkers and Typically Developing Children

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Typically developing toddlers (TDs) use the linguistic context in which a verb appears as a cue for meaning. For example, they associate the subject of a transitive sentence with the agent of a causative action (Fisher et al., 1994). It is unknown whether late talkers (LTs) use this same cue. 25 toddlers (10 LTs and 15 TDs; 11 female, 14 male; M(age) = 27.8, SD(age) = 2.0, range(age) = 25.0 – 30.0 mo.) participated in a novel verb-learning task. Participants viewed two scenes featuring causative actions; both scenes featured the same actors but differed in which was the agent. After previewing both, participants were prompted to "find" one. Analysis explored whether participants preferred the target scene (i.e., the scene in which the sentence's subject was the agent) above baseline looking rates. A mixed-effects logistic regression revealed a significant interaction between group (LT, TD) and subphase (Baseline, Test). Whereas TDs look more to the target at Test

than Baseline, LTs do not, suggesting LTs do not use the subject-agent link as a cue for verb meaning. Funding: ASHFoundation New Century Scholars Grant.

<u>PS3S41</u>

Impact of Feedback Timing in Probabilistic Learning Accuracy in Children with DLD

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This study examines whether feedback timing impacts probabilistic learning in children with Developmental Language Disorder (DLD). Previous findings indicated inefficient feedback-based learning in children with DLD. Given that feedback processing is critical for learning and intervention, it is important to determine whether it can be improved in children with DLD. This study aims to determine if the timing (immediate or delayed) of feedback impacts learning in children with DLD.

School-aged children with DLD completed a computerized learning task in which participants must incrementally learn how to sort a set of novel cartoon creatures into one of two categories through trial-by-trial feedback. Analyses examine overall accuracy during training and testing trials, as well as the response to feedback under the two feedback timing conditions. This study will provide insight into how children with DLD process feedback and the best ways to provide feedback in clinical contexts.

<u>PS3S42</u>

Associations among lexical processing speed and language in 3-year-olds with small receptive vocabularies

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Lexical processing speed has been shown to predict concurrent and later outcomes in typically developing as well as late talking toddlers (e.g., Fernald & Marchman, 2012). In the current study, we asked whether the same is true for slightly older children with small receptive vocabularies, who may be at risk for poorer language outcomes. From an existing longitudinal data set, we identified 56 36-month-olds whose receptive vocabularies on the Toolbox Picture Vocabulary Test (Gershon et al., 2013) were in the 20th percentile or below. We coded their eye gaze in a variant of a looking-while-listening task (Fernald, Roberts, & Swingley, 2001) and evaluated associations among children's latency to look at the named target words and their concurrent and later (at 60 months) receptive vocabularies and school readiness on the Bracken School Readiness Assessment (Bracken, 2002). We found that although latency in the looking-while-listening task did predict concurrent vocabulary in this group of children with small

receptive vocabularies, it did not predict their 60-month receptive vocabularies or school readiness.