

המכללה האקדמית הדסה ירושלים

החוג להפרעות בתקשורת - תכנית התואר השני

בנושא 12 ממזמינים אתכם לכנס ה-

"הפרעות בתקשורת באוכלוסייה רב-לשונית ורב-תרבותית"

الكلية الأكاديمية هداसा القدس

قسم اضطرابات التواصل - برنامج اللقب الثاني

ندعوكم للمؤتمر الثاني عشر بموضوع

"اضطرابات التواصل في مجتمع متعدد اللغات والثقافات"

Hadassah Academic College

Department of Communication Disorders - MA program

Invite you to the 12th conference on Communication Disorders in Multilingual and
Multicultural Populations

The conference will be held on two consecutive days

Tuesday, 18th of January 2022 – child language day

Wednesday, 19th of January 2022 – adult language day

www.hadassah.ac.il

Conference Program*	
Tuesday 18 th of January	
<p>Welcome and greetings</p> <p>Prof. Bertold Fridlender, President of Hadassah Academic College</p> <p>Dr. Judy Kupersmitt, Lecturer at the MA program and Head of the Organizing Committee of the Conference</p> <p>Dr. Atalia Hai-Weiss, Head of the MA program</p>	<p>13:00-</p> <p>13:30</p>
<p>“Assessment of language skills in multilingual and multicultural settings”</p> <p>Prof. Julie Dockrell</p> <p>Department of Psychology and Human Development, University College London</p>	<p>13:30-</p> <p>14:10</p>
<p>“Profiling bilingual children: using monolingual assessment to inform diagnosis”</p> <p>Karen Rose¹, Prof. Sharon Armon-Lotem², Dr. Carmit Altman³</p> <p>^{1,2}Department of English Linguistics, Bar Ilan University, ³ School of Education, Bar Ilan University</p> <p>^{2,3}Gonda Multidisciplinary Brain Center, Bar Ilan University</p>	<p>14:10-</p> <p>14:35</p>
<p>“Language acquisition by multilingual deaf children: A case of language deprivation or cross-linguistic transfer?”</p> <p>Dr. Rose Stamp</p> <p>Department of English Linguistics, Bar Ilan University, Department of Communication Disorders, Hadassah Academic College</p>	<p>14:35-</p> <p>15:00</p>
<p>Mingling and poster session</p>	<p>15:00-</p> <p>16:00</p>
<p>“Developmental Trajectories in Clause Combining Complex Syntax”</p> <p>Dr. Lyle Lustigman¹, Prof. Ruth A. Berman²</p> <p>¹Department of Communication Disorders, San Jose State University, ²Department of Linguistics, Tel-Aviv University</p>	<p>16:00-</p> <p>16:40</p>
<p>“Discussion: Developing grammatical complexity and complex syntax in Arabic child language”</p> <p>Prof. Elinor Saiegh-Haddad</p> <p>Department of English Linguistics, Bar Ilan University</p>	<p>16:40-</p> <p>17:00</p>
<p>Coffee break and poster session</p>	<p>30</p>

	minutes
<p>“Early predictors of literacy and lexicon development in bilingual children in primary school: Evidence from the longitudinal BIVEM study”</p> <p>Dr. Natalie Topaj</p> <p>Leibniz Center for General Linguistics (ZAS)</p>	<p>17:30-</p> <p>18:00</p>
<p>“Bilingual children who stutter: a cross-linguistic perspective”</p> <p>Prof. Cahtia Adelman¹, Dr. Sveta Fichman²</p> <p>^{1,2}Department of Communication Disorders, Hadassah Academic College, ²Department of English Linguistics, Bar Ilan University</p>	<p>18:00:</p> <p>18:25</p>
Closure	

Wednesday 19^h of January	
<p>Welcome and greetings</p> <p>Prof. Loraine Obler, CUNY Graduate Center & Hadassah Academic College</p> <p>Prof. Bertold Fridlender, President of Hadassah Academic College</p>	<p>14:00-</p> <p>14:15</p>
<p>“Supporting everyday multilingual care – focus on dementia”</p> <p>Dr. Katrin Bente Karl</p> <p>Ruhr-Universität Bochum</p>	<p>14:15-</p> <p>14:50</p>
<p>“Quantitative and qualitative differences in language mixing across the two languages of bilingual Russian-Hebrew-speaking patients with aphasia”</p> <p>Alina Bihovski^{2,3}, Dr. Michal Ben-Shachar^{1,2}, Dr. Natalia Meir^{1,2}</p> <p>¹Department of English Literature and Linguistics, Bar Ilan University, ²The Gonda Multidisciplinary Brain Research Center, Bar Ilan University, ³The Sheba Rehabilitation Hospital</p>	<p>14:50-</p> <p>15:15</p>
<p>Mingling and poster session</p>	<p>15:15-</p> <p>16:15</p>

<p>“Implications of Growing Multiethnic-Multilingual Aging Populations in Speech-Language Pathology Training and Practice”</p> <p>Prof. Jose Centeno</p> <p>School of Health Sciences, Department of Speech-Language Pathology, Rutgers University</p>	<p>16:15- 16:55</p>
<p>“Interviews about identity and multi-culturalism of people with aphasia – personal perspectives”</p> <p>Elchanan Lerner, Dubi Rozen, Dafna Olenik, Orly Shay Keslassy</p> <p>Adler Center of Aphasia, Hadassah Academic College</p>	<p>16:55- 17:30</p>
<p>Mingling and poster session</p>	<p>17:30- 18:00</p>
<p>“Rebuilding identity: A critical process for people with aphasia”</p> <p>Prof. Debra Meyerson^{1,2}, Steve Zuckerman²</p> <p>¹Stanford University, ²Stroke Onward</p>	<p>18:00- 18:40</p>
<p>Closure</p>	

***All the talks will be translated to Chinese by students in the MA Conference Interpreting and Translation Program, and the MA Advanced Interpreting with Specialised Translation, at the University of Essex, UK.**

תקצירי ההרצאות

Abstracts of talks

Tuesday, 18th of January 2022 – child language day

Assessment of language skills in multilingual and multicultural settings

Julie Dockrell

Department of Psychology and Human Development, University College London

Oracy skills underpin learning, attainment, and social interaction. Yet the assessment of children's oracy skills raises significant challenges for health and education practitioners. These challenges revolve around which language skills to assess, in which settings and whether these assessments are reliable measures of identifying language learning difficulties in diverse contexts and settings. Drawing on recent research completed in my lab I report data from three studies which speak to the assessment of oral language. I first consider some basic challenges related to the current measures which exist to examine oral language. Secondly, I address the dimensionality of oral language skills and consider the need to capture these profiles across languages. Thirdly, I consider the challenges in assessing oral language in multicultural nursery settings. I will conclude by considering the ways in which these data could inform assessment protocols in schools and clinic settings.

Julie **Dockrell** (FRCSLT, FAcSS) is Professor of Psychology and Special Needs at the UCL, Institute of Education and qualified as both a clinical and educational psychologist. She is currently Director of the UBEL doctoral training centre. Her research interests are in patterns of language development and the ways in which oral language skills impact on children's learning, interaction, and attainments. A central theme in this research has been the application of evidence-based research to support children's learning. She has published in a wide range of journals and written books and book chapters on language development and language difficulties. She was the previous editor of the British

Journal of Educational Psychology, associate editor for JSLHR and Learning and Instruction. She was a co-director of the Better Communication Research Programme, UK. She is currently PI on a Nuffield funded research programme examining universal language support for nursery aged children in areas of social disadvantage and Co-I for the Education and Cognition stream for UKRI- GCRF Action against stunting hub.

Developmental Trajectories in Clause Combining Complex Syntax

Ruth A. Berman¹ and Lyle Lustigman²

¹Tel Aviv University, ²San Jose State University

This talk is divided into three parts: Part I (Introduction) outlines what is meant by Clause Combining (CC) Complex Syntax and why languages use it; Part II (Early CC) shows a gradual emergence and acquisition of clause expansion and integration of single clauses into unified CC constructions in Hebrew, based on analysis of intra- and inter-clausal complex constructions produced by three Hebrew-acquiring children aged 2 to 3 years of age in adult-child interactions; Part III (later CC) shows increased complex in number and variety of clauses

combined together in Clause Packages (CPS), chunks of syntactically and thematically connected clauses in extended texts produced by Hebrew and English-speaking school-children, adolescents, and adults.

Findings show a gradual **emergence** of CC in young children. Structurally, this is shown by initial use of non-marked, juxtaposed constructions (e.g., *he went there, who did he see?*), followed by initial restricted use of connectives (‘and’ and ‘that’), and then ‘but’ and ‘because’, until **acquisition** around age three years children mark a wide range of

www.hadassah.ac.il

adverbial relations, using marked by shows marking of more adverbial relations, by a more varied array of connectives (not only 'because', but also 'when', 'until'). Adult supportive contexts (in the form of affirmation, prompting, and co-construction with the child) are shown to scaffold children's transition into more complex and diverse CC production.

Findings for growing **mastery** of complex syntax, examined in extended monologic texts produced in middle childhood (age 9-10 years) compared with adolescence (aged 16-17 years), show two major trends: increased variety of types of dependent clauses (Complements, Relatives, and different Main Clause-Adverbial Clause relations) and increased connective density showed by longer, more complex and variegated types of Clause Packages from childhood to adolescence.

These results demonstrate the long developmental route from emergence via acquisition to mastery of linguistic knowledge and language use. In developing complex syntax as in other domains (such as inflectional and derivational morphology at one end and narrative construction at the other), language development manifests a gradual and complex path, calling into question the idea of when a particular construction or domain is "acquired".

Ruth (Aronson) Berman, Professor Emeritus in linguistics Tel Aviv University. Research areas include Modern Hebrew, cross-linguistic first language acquisition, later language development, text construction abilities. Book-length publications include: *Modern Hebrew Structure* (1978); *Acquisition of Hebrew* (1985); *Relating Events in Narrative*, with Dan I. Slobin (1994); editor of *Language Development across Childhood and Adolescence* (2004); *Acquisition and Development of Hebrew: From Infancy to Adolescence* (2016); and *Usage-based Studies in Modern Hebrew* (2020); special issues of *Written Language & Literacy* (2002) and *Journal of Pragmatics* (2005). Holder of the

chair in Language Across the Life Span at Tel Aviv University, former president of the International Association for the Study of Child Language [IASCL], honorary member of the Linguistic Society of America and the Spanish Language Acquisition Association, recipient of 2012 Israel EMET Prize for Science, Art, and Culture, holder of honorary doctorate from Haifa University, member of the Israel Academy of Sciences and Humanities.

Lyle Lustigman, the department of Communicative Disorders and Sciences at San José State University. Her research examines developmental and communicative trends in early language development from a cross-linguistic perspective. Her studies develop criteria for identifying productive (vs. rote-learned) linguistic knowledge (Lustigman, 2012; 2013); distinguish between shared developmental trajectories and individual strategies utilized by children in language acquisition (Lustigman, 2015; 2016a); examine how grammatical structure develops gradually over time (Lustigman, 2016b; 2020), and identify adult-child conversational contexts that support developmental trends (Lustigman, 2021; Lustigman & Berman, 2016; 2020; Lustigman & Clark, 2019).

Profiling Bilingual Children: Using Monolingual Assessment to Inform Diagnosis

Karen Rose¹, Prof. Sharon Armon-Lotem², Dr. Carmit Altman³

^{1,2}Department of English Linguistics, Bar Ilan University, ³School of Education, Bar Ilan University

^{2,3}Gonda Multidisciplinary Brain Center, Bar Ilan University

Purpose: Diagnostic tools developed for monolinguals are frequently used for bilingual linguistic assessment. The absence of evaluation criteria for using monolingual norms for bilinguals contributes to inconsistent diagnostic procedures, impacting research and clinical practice. This study considers the reliance on monolingual tools to assess the heritage language to identify bilingual atypical language development (ALD) even when bilingual norms are available for the societal language.

Method: 131 English-Hebrew bilingual children aged 5;6-5;11 were assessed using diagnostic tools. Bilingual standards are available for the societal language but not the heritage language. 15 English-Hebrew bilingual children were suspected of ALD. They were individually compared to 116 typically developing bilingual peers. The Core Language Score and seven subtest standardized scores of the Clinical Evaluation of Language Fundamentals - Preschool 2's (CELF-Preschool-2; Wiig et al. 2004), were analyzed in the heritage language, English.

Results: Results revealed that a composite score used for differential diagnosis in monolingual children cannot be relied upon for bilingual children. Measurements vary in their diagnostic accuracy with three subtests, namely, Following Directions (comprehension of instructions), Receptive and Expressive Word Classes (lexicon), and Sentence Repetition (syntax), being the most promising for identifying ALD in bilingual

children. Lastly, bilingual children's age of onset of bilingualism must be considered in the analysis of linguistic outcomes.

Conclusions: Findings elucidate that monolingual assessments for heritage speakers must consider bilingual models of development to ensure a reliable and informative diagnosis. Interacting factors, such as reliance on language specific knowledge and the recruitment of other non-linguistic processing skills, may influence a measurement's sensitivity. The findings are pertinent to the practice of speech-language pathologists, informing evidence-based assessment procedures for bilingual children. A group study to determine whether the suggested bilingual standards can identify ALD with acceptable specificity and sensitivity is now recommended.

Reference:

Rose, K., Armon-Lotem, S., & Altman, C. (in press). Profiling Bilingual Children: Using Monolingual Assessment to Inform Diagnosis. *Language, Speech, and Hearing Services in Schools*.

Karen Rose is a specialist pediatric speech and language therapist and presidential doctoral fellow at the Department of English Literature and Linguistics, Bar-Ilan University (advisors- Prof. Armon-Lotem and Dr. Altman). Karen's research focuses on developing our knowledge of language development of bilingual children with and without language impairment. She has a special interest in the development of English as a Heritage Language (first language).

Early predictors of literacy and lexicon development in bilingual children in primary school: Evidence from the longitudinal BIVEM study

Natalie Topaj

Leibniz Center for General Linguistics (ZAS)

There is still insufficient research on which factors in early childhood can be used as predictors of later literacy, especially in bilingual children. The longitudinal BIVEM study, conducted by ZAS in 2012-2021 in Berlin, dealt with many research questions bound to bilingual development of Russian-German and Turkish-German children and provided a unique opportunity to track and investigate language development of participating children for 8 years in a row from early childhood (2-3 years old) to the end of the 3rd grade of primary school.

With regard to potential early predictors, we included gender, non-verbal intelligence, age of onset to the language of environment (German), home language (Russian or Turkish) as well as language development (lexicon and grammar) and narrative skills (picture-based stories, tested with MAIN) at the age of 3 and analysed the outcomes in literacy (reading and spelling) and lexicon in German (language of environment and schooling) at the end of the 2nd grade. In addition, also narrative skills (story structure and story complexity) at preschool age were analysed as potential predictor of reading and spelling at primary school age.

Nathalie Topaj is a researcher and coordinator of the Berlin Interdisciplinary Network for Multilingualism (BIVEM) at Leibniz-Centre General Linguistics (ZAS) in Berlin, Germany. She studied in Russia, Israel, and Germany and has a PhD in linguistics from the Humboldt University of Berlin. Her research interests and activities include

www.hadassah.ac.il

bilingual language acquisition and development, in particular narrative skills and reference, heritage languages, development of language support materials and tests, further training of pedagogical staff, and counselling of parents and institutions.

Language acquisition by multilingual deaf children:

A case of language deprivation or cross-linguistic transfer?

Rose Stamp

Bar-Ilan University and Hadassah Academic College

Most deaf children are multilingual; they are exposed to several languages in the spoken, signed, and/or written modalities. Yet, compared to their hearing counterparts, deaf children often present delayed abilities in spoken and written languages. This is often attributed to language deprivation due to delayed exposure to language of any kind from an early age, however, this is not always the case. Many deaf children, even those exposed to sign language from birth, are delayed in language acquisition because of lack of exposure to a consistent language input. Language deprivation is often suggested as the primary reason for delays with little regard for typical patterns of cross-linguistic transfer, which may also lead to noticeable language production differences. This raises the question: Is language delay in deaf children a case of language deprivation or cross-linguistic transfer?

This talk explores language acquisition by multilingual deaf children in Israel. The dataset focusses on the interesting case of multilingualism in deaf children from Arabic-speaking communities who are trimodal and trilingual: in spoken Palestinian Arabic, written Modern Standard Arabic, and signed Israeli Sign Language. In the talk, we will show evidence of cross-linguistic interaction effects, suggesting that the effects of language deficit and cross-linguistic transfer should both be considered when looking at language acquisition in deaf populations.

Dr. Rose Stamp is a lecturer in the Department of English Literature and Linguistics at Bar-Ilan University, Israel. She works in collaboration with Dr. Rama Novogrodsky and Sabrin Shaban-Rabah, from the Department of Communication Disorders at Haifa University, looking at language acquisition in deaf children. Her other research interests include language variation and change with a special focus on newly emerging signed languages. She takes a corpus-based approach when exploring language contact in Israel, looking at contact between multiple signed languages as well as between signed and spoken languages.

Assessment and characteristics of stuttering in bilingual Russian-Hebrew and English-Hebrew children who stutter

Sveta Fichman^{1,2} and Cahtia Adelman¹

¹Hadassah Academic College ²Talpiot College of Education

Despite a high prevalence of bilingual children in today's clinics, Speech-Language Pathologists rely on norms established for monolingual (mainly English-speaking) speakers. The present research aims to a) compare frequency and types of disfluencies, Stuttering-Like Disfluencies (SLD) and Other Disfluencies (OD), in bilingual and monolingual speakers; b) examine cross-linguistic differences and similarities in bilingual children's speech; and c) assess the effect of language proficiency on the frequency of disfluencies in bilinguals. Ten bilingual children who stutter (five Russian-Hebrew and five English-Hebrew bilinguals) and ten monolingual Hebrew-speaking children who stutter participated. Stuttering inclusion criteria was as follows: i) at least 3% of stuttered syllables in spontaneous speech sample; ii) score 11 or higher on Stuttering Severity Instrument (SSI-4, Riley, 2009); and iii) parents' concern regarding

fluency. Monosyllabic word repetitions were counted as part of ODs. Language proficiency was assessed using Sentence Repetition task (Marinis & Armon-Lotem, 2015). Additional speech samples were collected using narrative retelling (based on MAIN, Gagarina et al., 2012) and telling (based on Mayer, 1969, 1975) procedures. The results indicate that SLDs are similar in bilingual and monolingual speech (part-word repetitions, blocks and prolongations), however ODs are more frequent in bilingual speech (interjections and multisyllabic word repetitions). Monosyllabic word repetitions were more frequent in a less proficient language of bilingual children. The results support the need to assess stuttering and both languages and the importance of oral language proficiency in the assessment of stuttering in bilingual children.

Gagarina, N. V., Klop, D., Kunnari, S., Tantele, K., Välimaa, T., Balčiūnienė, I., & Walters, J. (2012). MAIN: Multilingual assessment instrument for narratives. *ZAS papers in linguistics*, 56, 155-155.

Marinis, T., & Armon-Lotem, S. (2015). Sentence repetition. *Assessing multilingual children: Disentangling bilingualism from language impairment*, 95-124.

Mayer, M. (1969). *Frog, where are you?* New York, NY: Dial Press.

Mayer, M. (1975). *One Frog Too Many*. New York, NY: Dial Books for Young Readers.

Riley, G. D. (2009). *Stuttering Severity Instrument—Fourth Edition*. Austin, TX: Pro-Ed.

Sveta Fichman received her PhD in 2018 at Bar-Ilan University in English Literature and Linguistic Department. In her PhD thesis, Sveta Fichman examined narrative skills of bilingual children with Developmental Language Disorder (DLD), focusing on narrative macrostructure skills. Currently she teaches courses on Phonetics and Phonology, Introduction to Linguistic, Psycholinguistics, and Quantitative Research Methods. Her main research interests relate to the interfaces between Bilingualism and Speech-Language Disorders (DLD and Fluency Disorders). She studies the effect of Bilingualism

and cross-linguistic differences in different populations of bilingual children and young adults.

תקצירי ההרצאות

Abstracts of talks

Wednesday, 19th of January 2022 – adult language day

Everyday care in the context of multilingualism and dementia: insights and perspectives

Katrin Bente Karl

Ruhr-Universität Bochum

We live in an increasingly ageing world. Culturally and linguistically diverse. Thus, we can soon expect to have a higher number of multilingual people, with different linguistic and cultural backgrounds, who will eventually need assistance. Some of them will potentially suffer from dementia, a disease that in its course impairs linguistic and communicative abilities. The persons concerned may be particularly dependent on their familiar language. At the same time, it is not guaranteed that the required language is spoken by caregivers.

This talk will focus on the specific challenges arising from this communication barrier. This will be illustrated using examples from different nursing homes in Germany.

In the first part of the talk, I will cover the aspect of theoretical background. I will begin with a discussion of language and multilingualism in the elderly affected by dementia. Next, there will be a discussion on methodological challenges associated with researching on this vulnerable group and context.

In the second part, I will cover the different linguistic constellations in Germany's nursing homes. I will do this presenting some specific examples. I will continue with a discussion on long-term studies with bilingual people affected by dementia. From this we can gain knowledge of the multilingual developments in people suffering from dementia.

I will conclude explaining to what extent the communicative abilities in different languages can and should be seen as a resource and used in the context of everyday assistance. The talk will end with an outlook on the existing approaches to integrate multilingualism in the context of care and to promote even more in the future.

Katrin B. Karl is a senior lecturer at the Ruhr University in Bochum. She researches and teaches Slavic linguistics. She earned her PhD at Hamburg University (Germany). Her main research interests are in current Slavic-German bilingualism and on the question of changes in language over the course of life. She is particularly interested in old age and dementia. Since 2016, she has been leading the project UnVergessen [UnForgotten].

Quantitative and qualitative differences in language mixing across the two languages of bilingual Russian-Hebrew-speaking patients with aphasia

Alina Bihovski ^{a,c}, Michal Ben-Shachar ^{a,b}, Natalia Meir ^{a,b}

^a Department of English Literature and Linguistics, Bar Ilan University, Israel

^b The Gonda Multidisciplinary Brain Research Center, Bar Ilan University, Israel

^c The Sheba Rehabilitation Hospital, Israel

Language Mixing (LM) occurs among non-brain damaged bilinguals as well as in bilingual patients with aphasia (BiPWAs) (Neumann et al., 2017; Goral et al., 2019; Lerman et al., 2019). There is no consensus on the exact underlying mechanisms of LM in BiPWAs, whether it stems from a linguistic impairment or from an impairment in cognitive control (Abutalebi et al., 2009).

The current study aimed to investigate LM in L1 and L2 in a group of Russian-Hebrew BiPWAs (n=20). Specifically, we examined the relationship between LM and language

skills, background factors of BiPWAs and cognitive control. The participants completed background questionnaires, the Bilingual Aphasia Test (BAT) in both languages, and a battery of 10 cognitive tests. Participants narrated three picture-sequence descriptions and three personal stories.

The results show quantitative and qualitative differences in LM produced by BiPWAs in the context of L1 compared to L2. Higher LM frequency was observed in L2-Hebrew, the post-aphasia weaker language for most BiPWAs. Linguistic mechanisms such as pre- and post-aphasia language proficiency and language impairment due to aphasia, predicted LM frequency in L1-Russian and L2-Hebrew, cognitive abilities were not associated with LM frequency.

To conclude, BiPWA tend to insert words from their stronger L1 in the contexts of weaker L2. LM patterns in L1 context resemble neurotypical pattern of LM and serve to increase communicative efficiency, while LM patterns in L2 enhance speech fluency. Our findings suggest that LM frequency in BiPWAs is related to language measures in L1 and L2, rather than to cognitive control impairments. Based on the data obtained, treatment directed at reducing LM should be targeted to the weaker language, where LM is more prevalent. Our findings further suggest that LM will be better treated by addressing language production directly, and by improving lexical access in the target language, and not by training domain-general executive functions. Alternatively, speech therapists may encourage the use of LM by BiPWAs, as a strategy to improve communication with bilingual interlocutors.

References:

- Abutalebi, J., Della Rosa, P. A., Tettamanti, M., Green, D. W., & Cappa, S. F. (2009). Bilingual aphasia and language control: A follow-up fMRI and intrinsic connectivity study. *Brain and Language*, 109(2–3), 141–156.
- Carpenter, E., Rao, L., Peñaloza, C., & Kiran, S. (2020). Verbal fluency as a measure of lexical access and cognitive control in bilingual persons with aphasia. *Aphasiology*,

34(11), 1341–1362.

Goral, M., Norvik, M., & Jensen, B. U. (2019). Variation in language mixing in multilingual aphasia. *Clinical Linguistics and Phonetics*, 33(10–11), 915–929.

Lerman, A., Pazuelo, L., Kizner, L., Borodkin, K., & Goral, M. (2019). Language mixing patterns in a bilingual individual with non-fluent aphasia. *Aphasiology*, 33(9), 1137–1153.

Neumann, Y., Walters, J., & Altman, C. (2017). Codeswitching and discourse markers in the narratives of a bilingual speaker with aphasia. *Aphasiology*, 31(2), 221–240.

Alina Bihovski: chief SLT at the Sheba Rehabilitation Hospital; PhD student of the Department of English Literature and Linguistics, Bar Ilan University.

Implications of a Multiethnic-Multilingual Aging World in Speech-Language Pathology Training and Practice

Jose G. Centeno

Rutgers School of Health Professions, Newark, NJ, USA

As the world rapidly ages, it is also becoming more diverse. The interaction of worldwide population aging with the concurrent migration-driven growth in global ethnoracial diversity is estimated to substantially expand multiethnic-multilingual neurorehabilitation groups across the world, especially in high-migration world regions. Larger ethnogeriatric groups with age-related disabling health conditions, prominently including cardiovascular disease and neurocognitive disorders, are estimated (Cummings-Vaughn, 2017; Prince et al., 2015). In many world regions, diversity scenarios consisting of numerous ethnic groups, including Indigenous populations, will continue to grow as new international migrants and

refugees arrive (International Organization for Migration, 2017). A global demographic transition into larger ethnogeriatric caseloads will require increased research, workforce, and multidisciplinary collaboration to meet the clinical demands of burgeoning underserved vulnerable older populations in multiethnic neurorehabilitation caseloads with chronic age-related communication disorders, especially from stroke and dementia. This presentation will provide an overview of the current demographic and epidemiological world scenarios with an impact on ethnogeriatric neurorehabilitation services and the target strategies that may be pursued for scientifically-grounded and socially-responsive management of neurogenic communication disorders in the rapidly growing multiethnic-multilingual adult caseloads worldwide.

Jose G. Centeno is a clinical researcher and certified practitioner in Speech-Language Pathology. He conducts research that responds to the clinical needs of the growing ethnoracially diverse geriatric populations with chronic age-related disabilities. His research is at the intersection of neurolinguistic theory, post-stroke rehabilitation services, and ethnogerontology. Specifically, his investigations in post-stroke verb use in Spanish speakers have generated understandings to support intervention in post-stroke language impairments (aphasia) in monolingual Spanish and bilingual Spanish-English speakers. Additionally, his research in service assessment of minority adult caseloads in neurorehabilitation has highlighted areas to improve rehabilitation and minimize service and outcome disparities in under-resourced geriatric populations with aphasia in the United States, especially bilingual speakers with aphasia. His work is grounded in the crossdisciplinary integration of research evidence and conceptual principles from gerontology, neurolinguistics, public health, speech-language pathology, and a variety of other health professions. Dr. Centeno has participated in national and international professional committees on aphasia and multicultural issues.

Identity and multiculturalism of people with Aphasia - Personal interviews with Adler Aphasia center members

Elchanan Lerner, Dubi Rozen - members of the Adler Aphasia center

Orly Shay Keslassy (SLP), Dafna Olenik (Director) – Adler Aphasia center

Identity is influenced by many aspects of life such as gender, profession, religion, culture, nationality and family roles. People with aphasia report a profound influence on their identity as result of the language and communication impairments.

As found in literature, aphasia affects occupational identity, family roles and relationships, social identity and more (Musser et al. 2015).

In this lecture, Elchanan Lerner and Dubi Rose - people with aphasia from the Adler Aphasia Center, will talk about their identity experience and their unique personal journey to a new definition of identity after stroke/TBI.

Bibliography:

Musser, B. et al. (2015) Changes in Identity after Aphasic Stroke: Implications for Primary Care, *Hindawi Publishing Corporation, International Journal of Family Medicine*, 2015, 8 pages.

Orly Shay Keslassy, SLP (B.A) for 12 years. Also a Dance-movement therapist (M.A).

Currently works at Adler Aphasia Center in the field of rehabilitation.

Rebuilding identity: A critical process for people with aphasia

Prof. Debra Meyerson^{1,2}, Steve Zuckerman²

¹Stanford University, ²Stroke Onward

In 2010, Debra Meyerson was a tenured professor at Stanford University, a happily married mother of 3 almost-grown kids with a healthy, athletic lifestyle. Then a debilitating stroke left her paralyzed on her right side and maybe worse, with aphasia, robbing her of the speech that was a foundation for so much of her life. She pursued every avenue of therapy possible, determined to return to life as she knew it. But with significant ongoing disabilities, most notably her communication challenges from aphasia, she was unable to return to her job as a professor. That precipitated Debra's identity crisis – “who am I now?” she worried.

For five years, with the help of her family and others, Debra turned her knowledge about identity to address her own crisis. She and her husband Steve realized it was critical for Debra to rebuild her identity in the face of this life-altering event. They wrote *Identity Theft: Rediscovering Ourselves After Stroke* (2019) knowing there were many others facing a similar and very difficult journey. In this talk, Debra and Steve will share some of the critical lessons they've learned about rebuilding identity in the face of aphasia, and the work they are doing now to support survivors, carepartners and professional caregivers, and to change the system of care for stroke survivors and others with aphasia.

Debra Meyerson and Steve Zuckerman co-founded Stroke Onward in 2019, and currently serve as volunteer co-chairs of this nonprofit organization. Stroke Onward's mission is to ensure stroke survivors, families, and caregivers have the resources they

www.hadassah.ac.il

need to successfully navigate the emotional journey critical to rebuilding their identities and rewarding lives.

Debra Meyerson is an author, advocate, and a professor at Stanford University Graduate School of Education. Prior to her stroke in 2010, Debra's academic work focused on feminism, diversity, identity, and organizational change. Debra's most recent book, [*Identity Theft: Rediscovering Ourselves after Stroke*](#) (Andrews McMeel Publishing, 2019) helps stroke survivors and those closest to them think about the process of rebuilding identities after trauma, and navigate the emotional journey that she has found very difficult—and rewarding. In addition to her work with Stroke Onward and her ongoing rehabilitation therapy, Debra currently serves on the board of the Pacific Stroke Association (PSA), the BU Sargent Clinical Advisory Board, and the Acceptance Commitment Therapy (ACT) for Aphasia Stakeholder Advisory Board (University of Pittsburgh). Debra received her B.S. and M.S. from M.I.T. and a Ph.D. in Organizational Behavior from Stanford University.

Steve Zuckerman is Debra's husband, carepartner, and an unnamed co-author of *Identity Theft*. He leads the development of Stroke Onward and remains employed part time as President of [Self-Help Federal Credit Union](#) and Senior Advisor to Self-Help's west coast operations, which he launched in 2006. Self-Help is a nationally recognized nonprofit whose mission is to create and protect ownership and economic opportunity for underserved communities. Steve's prior work experience includes leadership roles in both private equity and consulting. Throughout his career, he has served on numerous nonprofit boards supporting economic, social and health justice and currently serves on the BU Sargent Clinical Advisory Board and the ACT for Aphasia Stakeholder Advisory Board (University of Pittsburgh). Steve earned a BA from Yale University and an MBA from the Stanford Graduate School of Business.

תקצירי הפוסטרים

Abstracts of posters

Are girls really faster than boys in acquiring language? Evidence from the PA-Arabic CDI

Lina Hashoul Essa & Sharon Armon-Lotem

Bar-Ilan University

lina.hashoul.essa@gmail.com sharon.armon-lotem@biu.ac.il

Several studies have explored the role of gender in early language acquisition; however, it remains controversial. A large body of studies (e.g., Bornstein et al., 2005) shows that girls slightly outweigh boys in many features of language acquisition as they start vocalizing earlier, produce more vocals, use more gestures, speak earlier, have a larger vocabulary, use grammar earlier, and produce longer utterances than boys do. These differences, however, seem to vanish by the age of 36 months. Other studies, on the other hand, have found no gender differences at all (Berglund and Eriksson, 2000). The issue of gendered words has been brought up in several studies (Fenson et al. 1994, Bouchard et al. 2009, Marjanovič-Umek et al. 2017), claiming that gendered words may actually be the cause of the significant gender difference in the early acquisition of vocabulary.

The current study compares Palestinian Arabic (PA) language acquisition of boys and girls. It is conducted using the online version of the Palestinian Arabic Communicative Development

www.hadassah.ac.il

Inventories (PA-CDI) developed in Hashoul Essa (2017). It aims to address the impact of gender on the acquisition of vocabulary, and whether there is a significant difference in the lexical production of boys and girls. It also addresses the issue of gendered words and whether their removal may decrease the gap between boys and girls.

Parents of 903 children (431 girls, 472 boys) between the ages of 18 to 36 months reported on their language use. All children are speakers of Palestinian Arabic residing in Israel. The acquisition of vocabulary was examined through studying the production of 658 vocabulary items, divided into 21 categories.

A GLM with Age and Gender as independent variables shows a significant difference ($p < .001$) in the acquisition of vocabulary between boys and girls, with girls outweighing boys. The difference remains significant even when gendered words are removed. Differences are observed for both content and function categories. Gender effect is mainly observed at 19 months and then between 30 to 32 months. By the age of 33 months, there is no longer a difference in the production of boys and girls.

Bibliography

- Berglund, E., & Eriksson, M. (2000). Communicative development in Swedish children 16–28 months old. The Swedish early communicative development inventory – words and sentences. *Scandinavian Journal of Psychology*, 41(2), 133–144.
- Bornstein, M. H., Hahn, C.-S., & Haynes, O. M. (2005). Specific and general language performance across early childhood: Stability and gender considerations. *First Language*, 24, 267–304.
- Bouchard, C., Trudeau, N., Sutton, A., Boudreault, M., & Deneault, J. (2009). Gender differences in language development in French Canadian children between 8 and 30 months of age. *Applied Psycholinguistics*, 30(4), 685–707.

- Fenson, L., Dale, P. S., Reznick, J. S., Bates, E., Thal, D., & Pethick, S. (1994). Variability in early communicative development. *Monographs of the Society for Research in Child Development*, 59(5), 174–185.
- Marjanovic-Umek, Ljubica; Fekonja-Peklaj, Urška: Gender differences in children's language: a meta-analysis of Slovenian studies - In: *CEPS Journal* 7 (2017) 2, S. 97-111

Assessing language abilities among Arabic-Hebrew bilinguals in low SES

Sharon Malki and Carmit Altman

Faculty of Education, Bar Ilan University

Standardized assessment tests at the national and international level reveal an ongoing difficulty in assessing language achievement among Arabic-Hebrew bilinguals from low Socio-Economic Status (SES) compared to Hebrew monolinguals in mid socio-economic status (2017, ראמ"ה; OECD, 2020). The literature shows that bilingual teaching in cultural-relevant pedagogy contributes to the improvement of academic achievement and the reduction of gaps by strengthening the home and societal languages (Armon-Lotem, Restrepo, Lipner, Ahituv-Shlomo & Altman, 2020; Gay, 2013). The aim of this study is to assess vocabulary and narrative skills of Arabic-Hebrew bilingual students from low-SES learning in the Israeli education system. Fifty-seven students aged 10;6-11;0, from Hebrew speaking elementary schools in the Tel-Aviv district participated. They formed 3 groups: 18 bilingual Arabic-Hebrew speakers from low-SES, 20 monolingual Hebrew speakers from low-SES and 19 monolingual Hebrew speakers from high-SES. The students participated in telling and retelling a story using Multilingual Assessment Instrument for Narratives - MAIN (Gagarina et al., 2019). The children's vocabulary and narrative skills were examined. Results show that children from monolingual high-SES performed significantly higher ($M=1.84$, $SD=0.4$), $t(37)=2.343$, $p=.02$) on Hebrew vocabulary than both monolingual low-

SES ($M=0.75$, $SD=0.2$) and bilingual low-SES ($M=0.6$, $SD=0.2$). No significant differences on macrostructure skill performance were found between bilingual low-SES and monolingual low-SES ($p=0.68$). The discussion will focus on the greater effect of SES versus the effect of bilingualism, which may suggest that bilingualism does not hinder development of language skills.

Armon-Lotem, S., Restrepo, M.A., Lipner, M., Ahituv- Shlomo, P., & Altman, C. (2020). Vocabulary gains in bilingual narrative intervention (BINARI). *Language Speech and hearing in School Services*.

Gagarina, N., Klop, D., Kunnari, S., Tantele, K., Välimaa, T., Bohnacker, U. & Walters, J. (2019). MAIN: Multilingual Assessment Instrument for Narratives – Revised. Materials for use. *ZAS Papers in Linguistics*, 63. Hebrew version. Translated and adapted by Altman, C., Fichman, S., Armon-Lotem, S., & Walters, J.

Gay, G. (2013). Teaching to and through cultural diversity. *Curriculum Inquiry*, 43(1), 48-70.

OECD (2020). *Difference in reading performance, by SES background*. In *PISA 2018 Results (Volume II): Where All Students Can Succeed*, PISA, OECD Publishing.

ראמ"ה (2017). ממצאים עיקריים מהמחקר הבינלאומי PIRLS2016. רשות ארצית למדידה והערכה בחינוך.

Macrostructure, microstructure, and mental state terms in L2 personal narratives of Russian-Hebrew bilingual preschool children

Yael Tamir, Sharon Armon-Lotem, and Carmit Altman

Bar Ilan University

Social-emotional (SE) skills are great predictors of social and emotional well-being in young children as well as their academic achievement and life success. Thus, it is recommended

www.hadassah.ac.il

that SE competency instruction should start in preschool (Stipek, 2006). There is evidence that SE skills can be developed by encouraging children to narrate personal narratives since they enable them to not only to reflect on their emotions and thoughts, but also recognize how others think and feel. Moreover, the rich data personal narratives provide on children's language use, emotions and thoughts makes them an important focus for linguists and clinicians (Westby & Martinez, 2017). To date, however, very few studies have looked at personal narratives (Berman, 2001) and even fewer focused on personal narratives of migrant preschool-aged children in their second and often less dominant language. The present study examines fight stories narratives of Russian-Hebrew L2 preschoolers to explore whether the task type influences macrostructure, microstructure, and internal state terms (ISTs) and the role of ISTs in bridging the gap between macrostructure and microstructure. Forty Russian-Hebrew bilingual children, aged 5-6 with Typical Language Development (TLD) were asked to tell a story about a fight or disagreement they had with a friend in their L2-Hebrew. Participants' stories were transcribed and coded for macrostructure, microstructure, and incidence of ISTs. Macrostructure and microstructure results confirmed previous findings showing that 5-year-old children produced stories with a clear indication of setting (e.g., 80% of the children presented the characters), initiating event (90% of the children), and outcome (82.5%), while the goal and attempt were used by only half of the children. Microstructure analysis illustrated their ability to tell personal stories in a more linear manner expressed by sequential and temporal relations to connect between ideas rather than casual and adversative relations. In addition, five-year-olds' distribution of ISTs showed that the largest category was emotional and affective-negative (angry, bad), the second was linguistic (say told), while the third was Volition and ability (need, can), as has been reported in previous fight stories research. Our data exhibits that the use of personal stories, even when presented in the weaker language yields similar performance to what has been observed for monolingual. The use of personal narratives in the L2 trigger more emotional ISTs than other narrative types, e.g., telling a story from pictures, and children

use these terms to bridge the gap between macrostructure and microstructure to achieve cohesion.

References

Berman, R. A. (2001). "Setting the narrative scene: How children begin to tell a story". In A. Aksu-Koç, C. Johnson, & K. Nelson, eds. *Children's Language Vol. 10*. Mahwah, NJ: Lawrence Erlbaum, pp. 1-31.

Stipek, D. (2006). No Child Left Behind Comes to Preschool. *The Elementary School Journal*, 106(5), 455–465. <https://doi.org/10.1086/505440>

Westby, C., & Martinez, E. (2017). Assessing Personal Event Narratives. *Word of Mouth*, 28(4), 13–16. <https://doi.org/10.1177/1048395017692993d>

What can disfluencies tell us about macrostructure skills of bilingual children in both their languages?

Hadar Yaari, Sveta Fichman, Pola Osher, Fedor Dorokhov & Carmit Altman

Bar-Ilan University

Disfluencies in oral speech reflect underlying planning and are of interest in bilingual speech since they may reveal difficulties related to the interaction of two languages while producing a narrative task. The goal of the current study is to investigate the relationship between disfluencies and macrostructure skills in the narratives of bilingual children in both their languages. Twenty bilingual Russian-Hebrew children aged 60-78 months produced narratives using a wordless picture book *Frog, Where Are You?* in both languages. Narratives were transcribed. Transcripts were divided into five episodes and coded for the following macrostructure elements: character and setting, initial event, internal response, plan, attempt

www.hadassah.ac.il

and outcome in each of the five episodes. The following disfluencies were coded manually: filled pauses, repetitions, and self-corrections. In addition, silent pauses were coded using PRAAT software and reviewed by us. All disfluencies were mapped on to macrostructure elements per episode. Our findings show that the second and fourth episodes contained more pauses than the first episode, while all other disfluencies were similarly distributed across episodes. In addition, children produced more pauses in Russian than in Hebrew, while the difference across languages was not significant for other disfluencies. The link between macrostructure and disfluencies differed in Russian and Hebrew, such that children telling more complex stories in Hebrew tended to use fewer disfluencies, whereas in Russian there is no influence of story complexity on disfluency rate across all narratives. Disfluencies reveal a complex interaction of macrostructure skills and linguistic knowledge in bilingual speech which may be explained by the level of proficiency in each language.

Key words: bilingual children, narrative, macrostructure, disfluency

The Role of Lexical and Syntactic Distance in Narrative Production in Diglossic Arabic: A Comparison between Kindergarten Children with and Without Developmental Language Disorder

Prof. Elinor Saiegh-Haddad – Researcher and Lecturer, Department of English Literature and Linguistics, Bar-Ilan University

elinorhaddad@gmail.com

Bahaa Mahamid – Master's Student, Department of English Literature and Linguistics, Bar-Ilan University

bahaa.mahamid@hotmail.com

Research Question:

The main question that this study addressed is related to Arabic diglossia and the lexical-syntactic distance between Modern Standard Arabic (hereafter, MSA) and Spoken Arabic (hereafter, SpA) in narrative production in two story modes.

Background:

The current study examined narrative production of monolingual Arabic-speaking children with Developmental Language Disorder (hereafter, DLD), mean age=5.6, and Typical Language Development (hereafter, TLD), mean age=5.7.

Methods:

Children were asked to tell two stories adapted from LITMUS-MAIN (Gagarina et al., 2015), the first was generating a story called “the boy and the dog” from a set of 6 pictures shown in a sequence, and the second one was retelling a story told in MSA called “baby birds” based on six pictures shown in a sequence.

Data

and

Analysis:

Analysis of MSA lexical items was based on Saiegh-Haddad & Spolsky’s (2014) lexical distance framework which distinguishes five types of words: identical words, cognate SpA, cognate MSA, unique SpA and unique MSA words. MSA syntactic structures were analyzed in terms of whether they reflect the syntax of SpA versus MSA. Four syntactic structures were targeted: word order, negation, noun-adjective agreement, and verb inflection in MSA and SpA.

Results:

The results showed significant differences between the two story modes; namely both groups of children used many more MSA unique words and MSA word order in the retelling of the

story told in MSA than in story generation in SpA. The results, however, unexpectedly showed that children in both groups used unique MSA words in story generation. The results also showed significant differences between the two groups tested in use of MSA lexical and syntactic features, with children with TLD using many more unique MSA words and MSA word order than children with DLD.

Discussion:

In light of Arabic diglossia and the lexical-syntactic distance between MSA and SpA, the study demonstrates that story retelling told in MSA contributed to children (in both groups) producing more unique MSA words and MSA word order. In addition, measures of unique MSA words and MSA word order used in the retelling distinguished between children with and without DLD. Nevertheless, children's production of MSA unique words in story generation could demonstrate that some children are exposed to MSA at home or/and kindergarten.

Scaling of Verbal and Nonverbal Theory of Mind (ToM) in children with and without Autism: Evidence from Palestinian -Arabic speaking children

Muna Abed El-Raziq, Natalia Meir and Elinor Saiegh-Haddad

The Department of English Literature and Linguistics, Bar-Ilan University

Background: Theory of Mind (ToM) is a social-cognition skill enabling attribution of mental states (desires, thoughts, and intentions) to others. ToM deficit is a core feature of Autism Spectrum Disorder (ASD (Baron-Cohen, Leslie, & Frith, 1985). There is still a debate regarding the interface between ToM skills and language in children with ASD. Although language is not a core deficit in ASD, some children show intact language skills (ASD+NL), while others exhibit an additional language impairment (ASD+LI), (Kjelgaard & Tager-Flusberg, 2001).

Aims: The current study investigated ToM skills (both verbal and nonverbal) of Palestinian-Arabic speaking children with ASD and with typical language development (TLD). First, it focused on scaling of verbal and nonverbal ToM (aka Wellman & Liu, 2004). Second, it evaluated the link between ToM and structural language skills.

Methods & Procedures: A total of 164 children Palestinian-Arabic-speaking children aged 4 - 11 participated in the study: 88 children with TLD and 76 with ASD. All children scored within the normal range on non-verbal IQ. Structural language skills were measured using a Sentence Repetition task (Saiegh-Haddad, Halabi, & Armon-Lotem, 2019). A picture sequencing task was used to assess Nonverbal ToM skills, and it included five conditions varying in ToM involvement. We also used five subtasks tapping into verbal ToM skills (Diverse Desires, Diverse Beliefs, Content False Belief, first-order location False-Belief, second-order False-Belief).

Results and outcomes: Based on the Sentence Repetition task, the children in the ASD group were split into subgroups (ASD+NL: n=20; ASD+LI: n=56). Regarding the developmental trajectory of ToM skills, children with ASD showed the same order of acquisition of ToM skills as their TLD peers (see Appendix A). In the **Nonverbal ToM tasks**, children with ASD+NL and TLD showed similar performance, and they were significantly higher than ASD+LI. In the **Verbal ToM tasks**, the TLD group outperformed both ASD subgroups (see Appendix B).

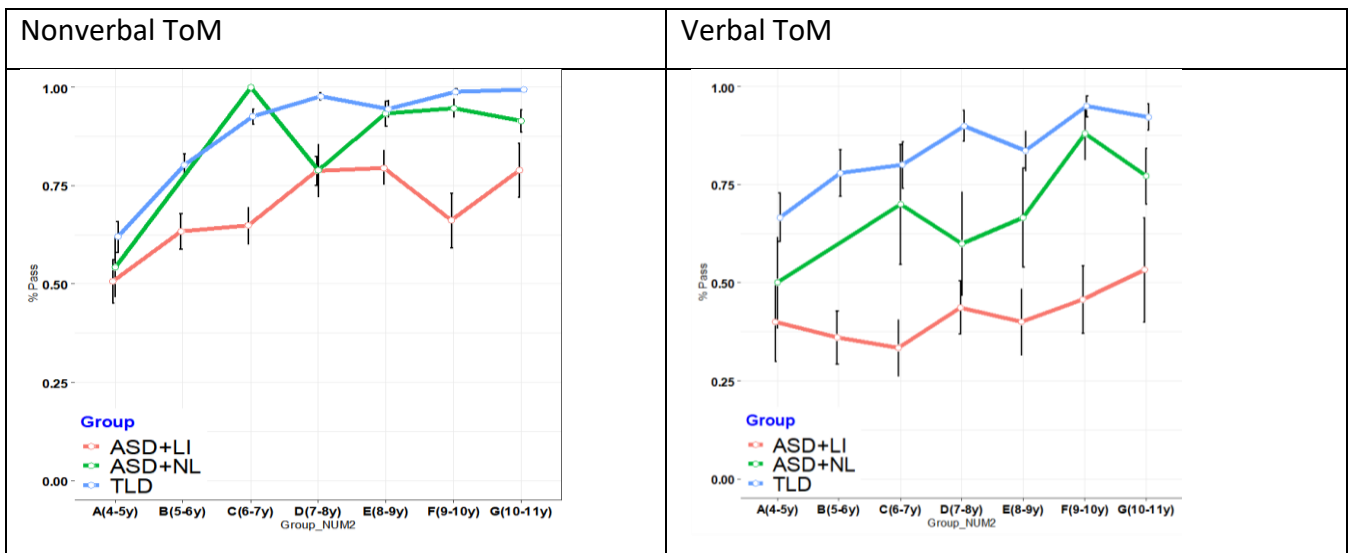
Conclusions: First, nonverbal and verbal ToM scale suggests a progression of conceptual achievements that mark social-cognitive understanding in children with and without ASD across different ages; and this has been confirmed for Palestinian-Arabic-speaking children. Second, the study shows that regardless of the structural language skills, children with ASD show difficulties in ToM skills involving language. ToM scales are vital to adequately capture

individual development profiles, and eventually, it would help develop effective programs aimed at improving social-cognition skills of children with ASD.

References:

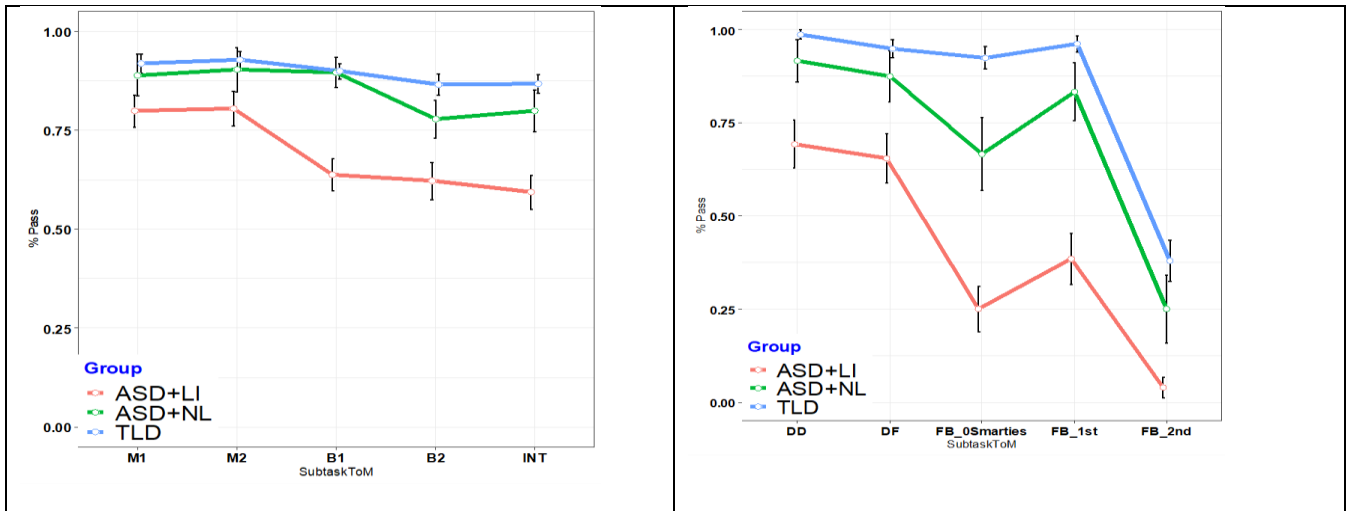
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a “theory of mind”? *Cognition*, 21(1), 37-46.
- Kjelgaard, M. M., & Tager-Flusberg, H. (2001). An investigation of language impairment in autism: Implications for genetic subgroups. *Language and cognitive processes*, 16(2-3), 287-308.
- Saiegh-Haddad, E., Halabi, A., & Armon-Lotem, S. (2019). The Effect of Memory Skills on Sentence Repetition (SRep) among Palestinian Arabic (PA) Speaking Children with Typical Language Development (TLD) and Children with Developmental Language Disorder (DLD). A talk presented at the LITMUS Sentence Repetition Workshop, University of Konstanz, Konstanz, Germany.
- Wellman, H. M., & Liu, D. (2004). Scaling of theory-of-mind tasks. *Child development*, 75(2), 523-541.

Appendix A:



Appendix B:

Nonverbal ToM	Verbal ToM



M1-objects acting casually with each other, M2-objects and people acting casually with each other. B1- single person acting in a daily routine attributing mental states, B2- interaction between at least two persons. I: people acting in everyday activities requiring attributions of mental states. DD=Diverse Desires; DB= Diverse Belief; FB_Smarties= Content false belief, FB_1st=first-order location False-Belief, FB_2nd =second-order False-Belief.

Disfluency use as a window for pragmatic skills in bilingual children with and without Autism Spectrum Disorder

Marianna Beradze and Natalia Meir

Bar-Ilan University

The present study examined specific aspects of pragmatic language, namely disfluencies in bilingual children with ASD. Recent studies on monolingual children with ASD have found a link between pragmatic communication skills and disfluencies (repetitions, self-corrections, silent pauses, vocalized pauses) (Lake et al., 2011; Salem et al., 2021). Some disfluencies (e.g., vocalized pauses “um”/“uh” and self-corrections) are considered to be listener-oriented, as they serve distinct pragmatic functions (holding the floor between turn taking), while others (e.g., silent pauses and repetitions) are viewed as speaker-oriented, signaling difficulties in language production (Lake et al., 2011). Monolinguals with ASD use less listener-oriented disfluencies.

Languages vary with respect to the preferred “floor-holding” strategies (Lickley, 2015). For example, Hebrew allows masked vocalized pause “eh” in function words (“ve-”, “le-”, “be-”), the most frequently prolonged vowel in Hebrew is “e” and 97.95 % of prolongations are final (Silber-Varod et al., 2019). In Russian, most of the function words don't contain “e”. Definite article “ha” is a very frequently elongated word in Hebrew (Silber-Varod & Maruyama, 2013), while in Russian there is no definite article.

The current study is the first to investigate the use of 11 types of disfluencies in bilingual Russian-Hebrew-speaking children aged 5-9 with ASD (BI-ASD, n=21) as compared to their bilingual peers with TLD (BI-TLD, n=30) in both languages. Disfluency use was evaluated using a storytelling procedure (MAIN-LITMUS, Gagarina et al., 2015) in Russian, the Heritage Language of the bilinguals, and in Hebrew, the Societal Language.

We evaluated whether the two bilingual groups differed in their disfluency choice across their two languages. The results indicated that in Russian narratives the BI-TLD group favored listener-

oriented vocalized pauses, while in Hebrew the BI-TLD group tended to produce more prolongations. In other words, the participants in the BI-TLD group maneuvered between their two languages, choosing specific fluency strategies in each language. On the other hand, cross-linguistic differentiatonal preference was not observed in the BI-ASD group, pointing at pragmatic difficulties.

Based on the results of the current study, we can conclude that the choice of disfluencies in the BI-ASD group is more speaker-oriented (not for the benefit of the listener) and less sensitive to cross-linguistic variation, i.e., to the specificity of the language spoken by the interlocutor. More studies are needed to understand underlying processes in disfluency patterns of bilingual children with and without ASD due to bilingual input as well as differences in their languages.

References:

- Lake, J. K., Humphreys, K. R., & Cardy, S. (2011). Listener vs. speaker-oriented aspects of speech: Studying the disfluencies of individuals with autism spectrum disorders. *Psychonomic bulletin & review*, 18(1), 135-140.
- Lickley, R. J. (2015). Chapter 20: Fluency and Disfluency. In Redford, M.A (Ed), *The handbook of speech production (pp.445-474)*. Wiley Blackwell.
- Salem, A. C., MacFarlane, H., Adams, J. R., Lawley, G. O., Dolata, J. K., Bedrick, S., & Fombonne, E. (2021). Evaluating atypical language in autism using automated language measures. *Scientific reports*, 11(1), 1-12.
- Silber-Varod, V., & Maruyama, T. (2013). The Linguistic Role of Hesitation Disfluencies: Evidence from Hebrew and Japanese. *DiSS 2013: The 6th Workshop on Disfluency in Spontaneous Speech*. KTH Royal Institute of Technology, Stockholm, Sweden, August 2013.
- Silber-Varod, V., Gósy, M., & Eklund, R. (2019). Segment prolongation in Hebrew. In *The 9th Workshop on Disfluency in Spontaneous Speech* (p. 47).

Evaluation devices in personal 'danger' narratives of Deaf and Hard of Hearing Arabic-speaking adolescents

Khaloob Kawar, Ph.D.

Beit Berl College, khaloob@hotmail.com

Abstract

The study investigated the relationship between the use of evaluation devices and syntactic and morpho-syntactic abilities in personal 'danger' narratives elicited from Hearing and Deaf and Hard of Hearing (DHH) Arabic-speaking adolescents.

Labov and Waletzky (1967) maintain that a narrative with only an orientation, a complication and a result is an incomplete narrative. The use of evaluations allows the narrator to take the narrative out of its referential context and suspend the chronology of events by focusing on a mental state or a particular behavior or action, from an evaluative perspective. Evaluation devices also contribute to the organization of the narrative and construct and maintain the relationship between the narrator and the listener (Hunston & Thompson, 2000; Labov, 1972; Linde, 1993). The ability to use evaluation devices in narrative develops with age and is related to cognitive, social and emotional abilities, as well as linguistic abilities including complex syntax, semantics and pragmatics.

DHH adolescents from Arabic-speaking homes are an understudied population, and personal narratives are a means to examine a range of language skills. The present study focused on evaluation devices, including: frames of mind, hedges, figurative expressions, character's speech, opinion comments, negative comments, causal connectives, lexical qualifiers, and lexical intensifiers. DHH children are limited in their access to spoken language and present unique language difficulties which challenge their abilities to tell a coherent and exciting story (Paul et al., 2020 & Worsfold et al., 2010).

Participants included 61 adolescents who are DHH with prelingual bilateral moderate to profound sensory-neural hearing loss, users of HAs or CIs (32 males and 29 females; age range: 12–16, Mage = 13;8 [years;months], SD = 1;3), and 63 adolescents who are typical hearing (36 males and

27 females; age range: 12–16, Mage = 13;7, SD = 1;2) recruited from mainstream middle and high schools. The groups did not differ by age, $t(122) = 0.22$, $p = .823$, or gender, $\chi^2(1, N = 124) = 0.80$, $p = .372$. Each participant told a personal story about a time he or she was in a dangerous situation.

Results showed that DHH adolescents used significantly fewer evaluation devices, specifically, fewer hedges and figurative language devices, and fewer complex sentences, and they made more morpho-syntactic errors in their narratives compared to those of their hearing peers. The ability to produce evaluation devices correlated negatively with morpho-syntactic errors: Preposition and verb errors were found to negatively impact on evaluation devices. The study offers benchmarks for morpho-syntactic abilities and production of evaluation devices by hearing and DHH Arabic-speaking adolescents.

A clinical takeaway from the study is that more attention should be paid to evaluation devices and complexity measures. Since morpho-syntactic abilities correlate with the (in)ability to use evaluation devices, clinical intervention should work from both directions, training the use of evaluation devices to improve macrostructure abilities and practicing morpho-syntax in order to provide a foundation for the production of evaluation devices.

References

- Hunston, S., & Thompson, G. (Eds.). (2000). *Evaluation in text: Authorial stance and the construction of discourse: Authorial stance and the construction of discourse*. Oxford University Press, UK.
- Labov, W. (1972). *Language in the Inner City: Studies in the Black English Vernacular*. Philadelphia: University of Pennsylvania Press.
- Labov, W., & Waletzky, J. (1967). Narrative analysis: Oral version of personal experience. In J. Helm (Ed.), *Essay on the verbal and visual arts* (pp. 12–44). University of Washington Press.
- Linde, C. (1993). *Life Stories: The Creation of Coherence*. Oxford: Oxford University Press.
- Paul, R., Paatsch, L., Caselli, N., Garberoglio, C. L., Goldin-Meadow, S., & Lederberg, A. (2020). Current research in pragmatic language use among deaf and hard of hearing children. *Pediatrics*, 146 (Supplement 3), S237-S245. DOI: <https://doi.org/10.1542/peds.2020-0242C>

Worsfold, S., Mahon, M., Yuen, H. M., & Kennedy, C. (2010). Narrative skills following early confirmation of permanent childhood hearing impairment. *Developmental Medicine & Child Neurology*, 52(10), 922-928. DOI: [10.1111/j.1469-8749.2010.03641.x](https://doi.org/10.1111/j.1469-8749.2010.03641.x)

Spontaneous and unexpected acquisition of English among children with Autism Spectrum Disorder (ASD)

Iris Hindi¹ & Natalia Meir^{1,2}

¹ Department of English Literature and Linguistics, Bar-Ilan University

² The Gonda Multidisciplinary Brain Research Center, Bar-Ilan University

Introduction: It has been suggested that around 62.5% of children with ASD demonstrate unusual islet of abilities or “splinter skills” which represent relative strengths compared to peers with typical development (Zhukova, Talantseva, & Grigorenko, 2021). There is evidence of several cases of independent and spontaneous acquisition of languages among individuals with ASD (Smith & Tsimpli, 1995). Recently, a case study of an eleven-year-old boy who spontaneously acquired English was described in the literature (Zhukova et al., 2021). Unlike other bilingual children who acquire their second language via interaction with close family members, this group of children accomplishes second-language learning independently and spontaneously.

Object of the study: The study aimed to examine the unique profiles of children with ASD who spontaneously acquire a new language which is not the ambient language/s of the environment and to explore the reasons and implications of this exceptional multilingualism.

Participants: A total of 20 children with ASD ages 4.5-10.5 participated in the study. Children were divided into two subgroups: children raised in English-speaking homes (N=12) and children who learned English spontaneously (N=8).

Tasks: Detailed background questionnaires were administered to all children in the study. Verbal and non-verbal ToM skills were measured via a battery of tasks. Morpho-syntactic skills were

www.hadassah.ac.il

measured using LITMUS Sentence repetition tasks (Marinis & Amron-Lotem, 2015). All children were tested twice (once in Hebrew and once in English). Children and parents were interviewed regarding the mode of acquisition and language preferences. Additionally, children were assessed using ADOS-2 (Lord & Rutter, 2012) to re-establish their diagnosis and to evaluate their severity of ASD.

Findings: The quantitative analysis revealed that children who acquired English spontaneously showed better morpho-syntactic skills and ToM abilities than the children who came from English speaking homes. Additionally, some of the spontaneous learners have shown better skills in English compared to Hebrew. The qualitative analysis revealed that most children and parents stated that the main reason for learning a new language was to enhance the children's use of Internet activities. Others pointed at emotional and social reasons.

Clinical Implications: The results reported in the study will assist professionals in assessing the unique language acquisition among children with ASD, thus, exploring the motivation for learning a language and the special abilities that children with ASD can hold. These insights can help professionals make decisions regarding treatment options and recommendations for parents.

References:

- Lord, C. and Rutter, M. (2012) (ADOS™-2) Autism Diagnostic Observation Schedule™, Second Edition
- Marinis, T., & Armon-Lotem, S. (2015). Sentence repetition. In S. Armon-Lotem, J. de Jong, & N. Meir (Eds.), *Assessing multilingual children: Disentangling bilingualism from language impairment* (pp. 95–124). Bristol, UK: Multilingual Matters.
- Smith, N. V., & Tsimpli, I. M. (1995). *The mind of a savant: Language learning and modularity*. Blackwell Publishing.

Zhukova, M. A., Talantseva, O. I., An, I., & Grigorenko, E. L. (2021). Brief Report: Unexpected Bilingualism: A Case of a Russian Child With ASD. *Journal of Autism and Developmental Disorders*, 1-8.

The relationship between SES and children's command of Hebrew plural marking among bilingual and monolingual children

Julia Reznick¹ and Sharon Armon-Lotem²

¹Ariel University, ²Bar Ilan University

Research targeting monolingual populations showed that socio-economic status indices, and mother's education in particular, have a clear effect on children's linguistic abilities. Less is known concerning bilingual populations, and only a few studies have investigated the distinct effects that socio-economic status and bilingualism have on the morphological abilities of bilingual children. In immigrant communities it is common to determine socio-economic status levels based on the number of maternal years of education. The present study examined the relationship between maternal years of education and error rates in the Hebrew plural system among children from different linguistic backgrounds. 153 children, 80 bilinguals (Russian-Hebrew) and 73 monolinguals (Hebrew), aged 5-8 years (kindergarten, 1st grade, 2nd grade), participated in the study. The groups did not differ in the number of maternal years of education, and the bilingual groups did not differ on the age of initial exposure and exposure length to Hebrew. A pluralization test which included 99 items differing by stem type, suffix type and the grammatical gender of the word in Hebrew was used. Our findings indicate different patterns of the relation between the number of years of education and error rates in Hebrew for the two linguistic backgrounds in 1st and 2nd grades: while for monolingual children, the performance level increased with the increase in the number of years of education, among bilinguals it was found that a higher number of maternal years of education (over 15 years of education) correlated with a lower performance level in constructions

requiring lexical learning (plural forms with changing stems and/or irregular suffixes). The decrease in performance levels correlated with greater use of Russian in these children's homes, as reflected in parent questionnaires. For all study groups, no relation was found between the number of maternal years of education and performance levels in constructions requiring the acquisition of morphological rules (plural forms with a non-changing stem and a regular suffix). The role of parents' education in the proficiency level of bilingual children in the societal language at different ages is considered within the framework of family language policy.

Applicative Implications of the Study

Study findings underline that without reference to the variable of the number of maternal years of education and the characteristics of home language use within the family, an incorrect evaluation of the bilingual child's language ability might ensue. Professionals need to take these variables into account when forming a language assessment, and formulating intervention recommendations. The use of home language is desirable and allows the child to grow as a bilingual child, but it is also important to reinforce the lexical aspects of the societal language.

Dollaghan, C. A., Campbell, T. F., Paradise, J. L., Feldman, H. M., Janosky, J. E., Pitcairn, D. N., & Kurs-Lasky, M. (1999). Maternal education and measures of early speech and language. *Journal of Speech, Language, and Hearing Research, 42*(6), 1432-1443.

Meir, N., & Armon-Lotem, S. (2017). Independent and combined effects of socioeconomic status (SES) and bilingualism on children's vocabulary and verbal short-term memory. *Frontiers in psychology, 8*, 1442.

Schiff, R., & Ravid, D. (2012). Linguistic processing in Hebrew-speaking children from low and high SES backgrounds. *Reading and Writing, 25*(6), 1427-1448.

Abstracts of posters

Final projects presented by students at the MA program in Communication Disorders

Statistical learning and early Hebrew reading and spelling abilities

Galia Block and Hilla Jakoby (Ph.D.)

Hadassah Academic College

Statistical learning (SL) is an implicit learning mechanism that was demonstrated as a key mechanism in language acquisition (Saffran, Aslin & Newport, 1996). Recent evidence shows that there might be a connection between visual SL abilities and reading and spelling abilities (Arciuli & Simpson, 2012; Torkildsen et al., 2019), though SL is known to be modality specific (Conway & Christiansen, 2005; Frost, et al., 2015). Therefore, the aim of the present study was to examine whether there is a connection between SL abilities in both the auditory and visual modalities and early reading and spelling abilities. We hypothesized that auditory SL, in comparison to visual SL, would have a stronger connection to reading and spelling abilities, considering the substantial evidence on the importance of phonological skills to the reading acquisition process (e.g., Goswami, 2008) and in light of recent findings demonstrated in adults (Qi, et al., 2019).

To that end, we recruited Hebrew-speaking monolingual children with typical development who had completed their first year of formal reading instruction at school. We used the

probabilistic classification learning (PCL) task that tests statistical learning abilities (Gabay et al., 2015). We designed it to be administrated in both the visual and auditory modalities, while maintaining all tasks' parameters equal, apart from modality specific characteristics. In addition, participants were tested in a variety of reading and spelling tests to estimate their rate, accuracy, and comprehension and to test their recognition of correct word forms and spelling abilities. General cognitive abilities were assessed using the RAVEN test (Raven, 1998). Due to the Covid-19 pandemic, the sessions were conducted using Zoom video conferencing. In our presentation we will discuss our findings that show the relevance of auditory SL to reading and spelling abilities.

Means of Identifying the Breaking Point in the Retrieval Process among Children with Language Impairment

Yarden Hadar

Atalia Hai Weiss, PhD

Hadassah Academic College

Accurate naming is the end point of a successful retrieval process that is based on two major successive stages: semantic and phonologic. While effective retrieval enables children to express their lexical knowledge, considerable retrieval difficulties, especially during the first years of school, may hamper academic progress. Awareness of the importance of developing a focused intervention to be applied by Speech Language Pathologists, based on the identification of the breaking point in the retrieval process, has grown in recent years. Previous studies among kindergarten children approached this aim by analyzing the types of errors that children make in naming incorrectly. However, while it is known that phonologic mistakes can directly point towards a phonologic breaking point in the retrieval process, semantic mistakes can point towards

either semantic or phonologic breaking point. The current study aims at applying the use of error analysis with another known measure; analysis of responses to either semantic or phonologic clues given following inaccurate naming. Nine Hebrew speaking children aged 6;5 to 9;0 years with already identified developmental language impairment were recruited to two successive appointments. Their retrieval abilities were assessed during the first meeting by a naming task. In a second meeting, they were presented with clues for all objects that they could not name in the first meeting, semantic clues for half of the words and phonologic for the other half. All the children received a significantly low score in the naming task, which is in line with their previous diagnosis. Analyzing the pattern of errors revealed that on a group level, the 'no response' type of error was the most frequent, followed by the semantic type of error. However, they made significantly fewer phonologic errors. In contrast with the significant difference in rate of semantic vs. phonologic errors, the rate of correct answers following the phonologic clues was not different from that of semantic clues. Furthermore, four of the participants showed a significantly greater benefit from phonologic clues than from semantic clues and only two participants showed a significantly greater benefit from semantic clues. The other three children showed an equal benefit from both clues. We conclude that the breaking point of the retrieval process might be different among different children, either semantic or phonologic or both. Thus, applying both methods - error analysis and response to clues - might lead to a focused intervention for each child.

The effect of Child Directed Speech on phonological acquisition in Hebrew

Efrat Jorno and Avivit Ben-David

Hadassah Academic College

Background: the frequency of phonological units and the degree of their functional congestion in child directed speech (CDS) affects the phonological acquisition of children. Research in different languages indicated this connection between the acquisition order and the phonological units' frequency in CDS. However, research which examines this connection in Hebrew hasn't conducted yet.

Research method: the research was conducted by analyzing 11 transcripts and records of interactions between parents to their children in ages of 0;6-2;6, during a joint game, a story, etc. the transcriptions analysis included phonological analysis of the words including consonants, sub-syllable units (coda, nucleus and onset) and word structures. Calculations of the phonological units' frequency in every transcription by itself and in general were conducted.

Findings: the research findings pointed that in the segmental units, the vowel /a/ was the most frequent, compared to /u/, that was the rarest. Likewise, the consonants /m/ and /t/ were the most frequent, while /g/ and /p/ were the rarest. With respect to the sub-syllabic units, codas in penultimate stressed syllables were more common than in ultimate stressed syllables. Nuclei and onsets were more common in ultimate stressed syllables compared to penultimate stressed syllables.

Discussion and conclusions: the research findings support the connection between the frequency of phonological units in CDS and the acquisition rate of these units by Hebrew-speaking children. It appears that the frequency of phonological units in a language affects the phonological acquisition order of children in ages of 0;6 -2;6 to some extent. More research with wider research population, are needed in order to support these findings.

Elements of Theory of Mind in the stories of children with autism and typical development

Liel Menashe and Judy Kupersmitt

Hadassah Academic College

Autism spectrum disorder is a neurobiological disorder characterized by difficulties in communication and social interaction. These difficulties are manifested in different ways depending on the child's verbal abilities and level of functioning and have been related to deficit in theory of mind (ToM) (Beaumont & Sofronoff, 2008). Formal tests of theory of mind (e.g., false belief tests) provide a narrow view into the abilities of children to represent others' minds. Narratives, thus, may provide a more comprehensive platform to assess mental talk related to ToM abilities (Kim, Dore, Cho, Golinkoff & Amendum, 2021).

This study used an innovative narrative task to examine the ToM abilities of two high-functioning 6-year-old children with autism spectrum disorder, as compared to eight controls with typical development aged 4-5 years. Narratives demand the expression of various perspectives on events and characters, such as mentioning their motivation, feelings, thoughts, intentions, and beliefs and they may provide valuable information of these abilities. Two stories picture-book stories were read aloud to the children – one story was rich in verbal content and the other contained a few words while the story was mainly depicted by the pictures. A week later, children were asked to “read aloud” (a pretend reading task) the stories to the interviewer in the best way they can. Children were encouraged to tell their own stories and not to memorize the model they have heard. Besides, two ToM tasks were performed by the children. The analysis of the narratives focused on use of evaluative content including use of internal state expressions, explanations, taking perspectives on events, use of direct speech, mention of motivations and intentions of the characters. A qualitative analysis compared the performance of the two children with autism to the typically developing children as a group.

The results of the study showed a gap in the expression of evaluative content related to ToM in the narratives of children with autism compared to children with normal development, particularly in the story with less verbal content. Overall, the analyses showed a poor ability of children with autism to express causality and to express various mental and emotional perspectives on the characters and their actions. There were no differences in the ToM abilities as tested by the classical tasks of false belief. The results of the study may contribute to the planning of intervention programs that enhance the narrative and communicative abilities of children with high-functioning autism. Besides, the analyses should provide qualitative categories as a basis for the design of more adequate assessment tools.

References

- Beaumont, R. B., & Sofronoff, K. (2008). A new computerised advanced theory of mind measure for children with Asperger syndrome: The ATOMIC. *Journal of Autism and Developmental Disorders, 38*(2), 249-260.
- Kim, Y. S. G., Dore, R., Cho, M., Golinkoff, R., & Amendum, S. (2021). Theory of mind, mental state talk, and discourse comprehension: Theory of mind process is more important for narrative comprehension than for informational text comprehension. *Journal of Experimental Child Psychology, 209*, 105-181.

Description of acquisition of sibilant consonants and their phonological errors in typical school-aged Hebrew-speaking children

Shir Dachlika-Mizrahi, Mor Lavi, Ariela Nachmani and Avivit Ben-David

Hadassah Academic College

Acquiring consonants is a lengthy process that begins in early childhood and continues until school age. Sibilant consonants are among the last consonants that are acquired by children in many languages. It is known that these consonants are acquired at primary school age by Hebrew-speaking children, however there is a lack of sufficient data in the literature on the exact age of acquisition of each sibilant consonant. This knowledge is important for early diagnosis and treatment. In this study, we examined the acquisition order and error patterns of Hebrew sibilant consonants in school-age children. The subjects were 30 Hebrew-speaking children aged 7-10 years. The children produced words with sibilant consonants in various word positions using a 40-pictures naming test. The results of the study showed that sibilant consonants' acquisition continues even in elementary school age. The first consonant which was produced correctly was the "sh" sound and the last one was the "ts" sound.

The expression of causal relations in the picture-based narratives of preschool and school-age children

Miriam Elitzur and Judy Kupersmitt

Hadassah Academic College

Narrative practices require linguistic and cognitive skills in order to transfer experience to an organized and cohesive discourse (Veneziano, Albert & Martin, 2008). Narrative production also requires the ability to integrate between top-down and bottom-up skills (Kupersmitt & Armon-Lotem, 2019; Brown, Lile & Burns, 2011; Berman, 2008). One of the abilities at the

center of narrative development is the ability to express causality between events. Studies that investigated the expression of causal relations in children's narratives have found that the causal relations between the structural components increase and develop with age, but results are inconsistent regarding their pattern of development (Trabasso & Nickels, 1992; Kupersmitt, 2016). The goal of the current presentation is to examine the pattern of development of four types of causal relations: psychological, motivational, enabling, and physical in picture-based narratives. 45 monolingual Hebrew-speaking children with typical development participated in the study: 12 children aged 4-5:11, 9 children aged 6-7:11, 10 children aged 8-9:11, and 15 children aged 10-13. The children were asked to tell two stories based on a series of six-pictures each. Results show an increase in expressing causal relations as age increases, but the pattern of development is different by type of relation. Motivational relations were the most affected by age. Psychological relations increased only in one story, while enabling and physical relations did not show a significant development with age. The results of the present study reinforce the fact that the number of causal relations increases with age although the pattern of development is not fully consistent with previous studies. This may be due to the difference in type and structure of stories. The study has clinical implications for assessment and treatment of language and cognitive abilities related to discourse production.