Dear friend,

I am very pleased to share with you the inaugural newsletter of the Aphasia Services in Diverse Neurorehabilitation Caseloads (ASDNC) group. You are receiving this newsletter because you are interested in post-stroke disorders and neurorehabilitation.

The ASDNC discussion group aims to foster interdisciplinary communication among clinicians, researchers, students, and academics in disciplines that address the different linguistic, cognitive, social, psychological, and medical areas required to serve individuals with aphasia in our multiethnic-multilingual world. It is very exciting to see the great enthusiasm behind this aphasia-focused group.

Much research still is needed to support the understanding and management of aphasia profiles in many of the languages found in our diverse world. In addition to language aspects, there are many other factors in diverse adult neurorehabilitation groups, including epidemiological, social, and healthcare aspects, that need our attention.

I hope that the information in this and future issues of the newsletter helps to start the momentum that will result in strategies to strengthen aphasia management in speakers of under-researched languages and dialects.

Please share this newsletter with your colleagues and students. I welcome your suggestions for future newsletters.

Welcome to the ASDNC group!

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Acknowledgments

My deepest thanks to the invited contributors that made this issue of the newsletter possible and to the sponsor of the invited speaker:

Invited Contributors
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Sponsor of the Invited Speaker
Multilingual Matters: Communication Disorders Across Languages (CDAL) Book Series
http://www.multilingual-matters.com/

The CDAL series covers issues related to the crosslinguistic study of a variety of communication disorders. Multilingual Matters is delighted to sponsor the invited speaker of the Aphasia Services in Diverse Neurorehabilitation Caseloads group and is pleased to offer members of the group a 25% special discount on all the books in the CDAL series (see ad for discount code at the end of the newsletter).
Many individuals that experience a stroke are bilingual or multilingual. There are 195 sovereign states and approximately 7,102 languages in the world (Lewis, 2015; World Atlas, 2015) which results in multiple languages co-existing in many countries (Bhatia & Ritchie, 2013). Individuals in those communities necessarily are bilingual (speakers of two languages) or multilingual (speakers of more than two languages). In these linguistically diverse environments, there are also monolingual minority language speakers and dialectal speakers of local languages.

Local diversity environments with multiple ethnic groups and their languages/dialects in many communities worldwide, in addition to immigrants and their descendants, will continue to impact on local stroke rehabilitation programs (Centeno, Ghazi-Saidi, & Ansaldo, 2017). In these diverse environments, linguistic, social, cultural, and educational factors interact with healthcare issues.

Despite extensive diversity in adult neurorehabilitation caseloads, research in aphasia, a very frequent disorder in post-stroke care, mostly has focused on English speakers (Beveridge & Back, 2011). This scenario is consistent with the limited number of studies in diverse adult groups with neurogenic communication disorders (Ellis, 2009). Thus, it is not surprising that speech-language pathologists (SLPs) working with diverse adult neurorehabilitation caseloads feel they have limited knowledge and training to serve this population, especially individuals with aphasia (Centeno, 2015).

Limitations in the research to guide the understanding and management of aphasia symptoms and in the available clinical procedures to serve a diverse aphasia caseload complicate the management of the individual aphasia profiles in each of the dialectal speakers of local languages, monolingual minority language speakers, and bilingual/multilingual speakers in stroke care across the world (Harris, 2011; Payne, 2014; Penn, 2012; Siyambalapitiya & Davidson, 2015). Systematic strategies to expand the evidential bases to realistically serve diverse adult groups with aphasia would be a positive step to minimize service disparities in this population.

Suggested Readings


Lisa Edmonds, PhD, CCC-SLP, Teachers College, Columbia University, invited speaker, presented a paper titled The Effect of VNeST-E on Written Discourse in a Person with Spanish/English Bilingual Aphasia (co-authors, Jessica Obermeyer, MS, CCC-SLP and Heather Swanson, MS). This study sought to assess the improvement in written discourse exhibited by “David,” a Spanish/English speaker with apraxia of speech, hyponasality, and mild anomic aphasia, who primarily used text-to-speech technology to communicate. His written output was informative but sparse (e.g., 3 sentences), and he wanted to increase the complexity of his ideas in writing. Thus, we used an expanded version of Verb Network Strengthening Treatment (e.g., Edmonds, 2016) (VNeST-E) to elaborate sentences within a structured format using

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David identified 6 functionally relevant scenarios (e.g., going to salsa socials). Three were trained, three were untrained. English treatment was conducted first (10 2-hour sessions, 2-3 times/week) followed by an equal dosage of Spanish treatment. For the discourse task David described how he would complete each scenario in the spoken (not discussed) then typed modality. This was done in both languages before treatment, after English treatment and after Spanish treatment.

Pre-treatment written discourse was highly relevant across languages with less output and complexity in Spanish, and relevance was maintained across testing sessions. Results showed that English treatment increased #words in trained and untrained scenarios (by 52.2% and 34.5%, respectively) with maintained complexity. Crosslinguistic generalization occurred for trained and untrained scenarios for #words (88.2% and 106.6%, respectively) and grammatical sentences (>10 percentage point increase). Spanish treatment further increased Spanish #words (by another 25%) and virtually doubled complex sentences in the trained scenarios with no within-language generalization. Spanish treatment also facilitated crosslinguistic improvements in trained and untrained #words (37.7% and 82% increase) with further complexity increases.

The observed bidirectional CLT observed in this case study could be related to strong premorbid abilities across languages (e.g., Edmonds & Kiran, 2006) and continued high use of both languages. Additionally, VNeST-E could have facilitated increased complexity by providing structure and meta-awareness for elaboration of basic sentence structure. Though preliminary, these results suggest that VNeST-E may be a viable treatment for mild aphasia/aggraphia and that it may promote crosslinguistic generalization for some bilingual individuals.

**Suggested Readings**

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**RESEARCH IN PROGRESS**

**Aphasia Rehabilitation and Bilingualism Research Lab**
Lisa Edmonds, PhD, CCC-SLP, Director
Teachers College, Columbia University, New York

The *Aphasia Rehabilitation and Bilingualism Research Lab* is composed of doctoral and Masters students from Teachers College, Columbia University. The lab’s overarching mission is to develop and test treatments for people with monolingual/bilingual aphasia from evidential translation into clinical use. Current treatment studies allow us to investigate potential mechanisms of improvement across language tasks (e.g., sentences and discourse) in spoken and written modalities. We are also refining discourse outcome measures. We will soon begin a funded study to comprehensively investigate speech and language and potential response to treatment in persons with progressive supranuclear palsy.

**Racial Differences in Aphasia Outcomes and SLP Service Utilization**
Charles Ellis, PhD CCC-SLP
*East Carolina University, Greenville, NC*

Richard K. Peach, PhD, BC-ANCDS, CCC-SLP
*Rush University Medical Center, Chicago, IL*

New insights into the contribution of race to clinical and economic outcomes in the study of aphasia have been offered recently by collaborative research being conducted at the *East Carolina University Communication Equity and Outcomes Research Laboratory*, directed by Dr. Charles Ellis, and the *Rush University Medical Center Cognition and Acquired Language Disorders Laboratory*, directed by Dr. Richard K. Peach. Drs. Ellis and Peach completed two studies using data from the
NIH-funded AphasiaBank, a shared database designed to allow aphasia researchers to complete research related to aphasia outcomes. A third study was completed using administrative hospital data obtained from the Agency for Healthcare Research and Quality (AHRQ).

In the first study, African Americans with aphasia scored lower than Whites on the 15-item Boston Naming Test-Revised (Fastenau, Denburg, & Mauer, 1998) after controlling for age, educational level, duration of aphasia and years of treatment (Ellis & Peach, 2016). Additional study of these findings is required as lower scores have been reported among African Americans compared to Whites in studies of normally aging adults. The second study was designed to compare patterns of performance on the Western Aphasia Battery-Revised (Kertesz, 2006) Although no differences were observed in aphasia severity, as indicated by total Aphasia Quotient (AQ) scores, multivariate comparisons adjusted for age and years of education showed that African Americans with aphasia exhibited lower word fluency, auditory word recognition, and comprehension of sequential commands when compared to Whites with aphasia (Ellis & Peach, 2017). Whereas racial differences may not emerge in total WAB-R AQ scores, these findings indicate that differences may be present in subscale scores. Therefore, because word fluency and comprehension are critical to communication ability, such differences suggest clinicians may need to consider measures sensitive to these differences when treating African Americans regardless of their aphasia severity.

The third study was completed with colleagues from the University of Colorado-Denver using data from the AHRQ North Carolina Healthcare Cost and Utilization Project (HCUP). These administrative databases contain information that allow researchers to complete a wide range of studies related to cost and quality of services. Data from over 4300 individuals with aphasia seen in NC hospitals in 2011-2012 showed that, after controlling for demographic characteristics, stroke/illness severity and residence, African Americans with aphasia received more SLP services during longer length of stays (LOSs) and at greater costs when compared to Whites with aphasia (Ellis, Peach, Hardy, & Lindrooth, 2017).

The preceding three studies collectively suggest that greater service utilization in the acute care setting among African Americans likely does not translate into better outcomes.

**Suggested Readings**


**Within- and Cross-language Generalization of Language Abilities in Bilinguals with Aphasia as a Result of Verb Network Strengthening Treatment (VNeST)**

Aviva Lerman, M.A.
PhD Program, Department of Speech-Language-Hearing Sciences, The Graduate Center, City University of New York.

Bilingual aphasia is a growing concern in the speech and language clinic (Kohnert, 2013), but few treatment studies have shown consistent improvements to functional language in both the treated and untreated languages. In monolinguals, Verb Network Strengthening Treatment (VNeST) (Edmonds, 2016) encouragingly has found positive effects with varying types and severity of aphasia in treated items, as well as generalization to discourse and functional communication. Since different languages are thought to share semantic representations (Paradis, 1993; Siyambalapitiya, Chenery, & Copland, 2013), a treatment which strengthens the semantic network has high potential for both within- and cross-language generalization in bilinguals with aphasia in the production of verbs, nouns, sentences, and discourse. Indeed, treatment focusing on the semantic relationship between verbs and their thematic roles in a quadrilingual with aphasia was seen to be effective in the treated language (L4), as well as partially improving some language abilities in other late-learned languages. Together with Dr. L. K. Obler, Dr. M. Goral and Dr. L. Edmonds, our present study is investigating within- and cross-language generalization patterns of word retrieval in Hebrew-English bilinguals with aphasia after VNeST, sequentially provided in both languages. Word retrieval abilities will be analyzed at the single-word, sentence and connected speech levels.

Participants sought for this research

Contact person: Aviva Lerman – alerman@gradcenter.cuny.edu or avivapolus@hotmail.com
**Suggested Readings**


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**Improving Health Outcomes for Bilingual and Culturally and Linguistically Diverse Stroke Patients through Better Speech Pathology and Interpreter Interprofessional Care**

S. Siyambalapitiya1, P. Cornwell1,2, B. Davidson1, T. Howe1, & A. Huang1

1Griffith University, Australia 2Metro North Hospital and Health Service, Australia 3The University of Melbourne, Australia 4The University of British Columbia, Canada

In Australia, many healthcare policies and position statements dictate that management of patients from culturally and linguistically diverse (CALD) backgrounds should necessarily involve professional interpreters. In practice, several challenges exist for speech pathologists (SPs) working with interpreters including possible misdiagnosis of communication disorders (Roger & Code, 2011), reduced flexibility of management (Jodache, Howe, & Siyambalapitiya, 2015), lack of professional interpreters for Indigenous languages (Cochrane, Brown, Siyambalapitiya, & Plant, 2015) and difficulties accessing reliable, professional interpreting services (Rose, Ferguson, Power, Togher & Worrall, 2014).

We are currently conducting a qualitative descriptive investigative, using a phenomenological approach, which aims to explore current interprofessional practice of SPs and professional interpreters in the delivery of speech pathology services to bilingual/CALD adults with acquired neurogenic communication disorders. We have completed in-depth interviews with ten SPs working in hospitals and are currently analyzing these data. Findings will be presented at the upcoming Speech Pathology Australia conference in May. This program of research will be expanded by doctoral candidate, Anne Huang, whose PhD aims to further explore the issue of SPs and interpreters working together to manage adults with acquired communication disorders.

**Suggested Readings**


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**CLINICAL INSTRUMENTS AND APPROACHES**

*Batería para la Evaluación de los Trastornos Afásicos (BETA)*

The BETA battery (Cuetos & González-Nosti, 2009) has been designed to evaluate all aspects of oral and written language in both comprehension and production in Spanish speakers with aphasia. It consists of 30 tasks distributed in 6 blocks of 5 tasks each (oral comprehension, oral production, reading, writing, semantics and sentence processing). One advantage of this battery is that it is not a translation of a test in English, as many other tests are. It was developed based on the characteristics of the Spanish language. The test was standardized on a population that included individuals from Spain, Mexico, Venezuela, Peru, Chile and Argentina. Regarding psychometric characteristics, both the global test and the tasks have a reliability superior to 0.92. In terms of validity, the battery has a significant correlation with the Spanish version of the *Boston Naming Test* (Kaplan, Goodglass & Weintraub, 1996). Additional psychometric features of the test are described in the manual. Some scientific studies already have been conducted with the BETA battery (Cuetos et al, 2010a,b).


**Suggested Readings**


**The Main Concept Analysis (MCA)**

The Main Concept Analysis (MCA) (Kong, 2016) is an assessment battery designed for speech language pathologists, related healthcare professionals, and research personnel to perform quick and simple evaluations of disordered oral discourse. The tool, modified from the content-based analytic system for narratives proposed by Nicholas and Brookshire (1995), uses a sequential picture description task to elicit language samples. Key concepts within an oral output are the building components of discourse macrostructure. In addition, organized sequences of key concepts can form the skeletal outline of a discourse. The MCA was designed to allow systematic quantification of the presence, degree of accuracy and completeness, as well as efficiency of proposition production. It contains four sets of newly designed sequential pictures that are culturally-appropriate to both the Western and Eastern culture. The administration and scoring of the MCA can be completed in 20 minutes for most examinees.

At present, the MCA has been standardized in English (Kong, Whiteside, & Bargmann, 2016), Cantonese (Kong, 2011), and Mandarin (Kong & Yeh, 2015) using native speakers of these languages recruited in the USA, Hong Kong, and Taiwan, respectively. Adaptations of the Spanish, Brazilian Portuguese, Mainland Putonghua, and Japanese versions are in progress.

**Suggested Readings**


**RECENT PUBLICATIONS: HIGHLIGHTS**


Multilingual Matters is delighted to sponsor the invited speaker of the Aphasia Services in Diverse Neurorehabilitation Casebook meeting and is pleased to offer members of the network a 25% special discount on all the books in our Communication Disorders Across Languages series. This series covers issues related to the crosslinguistic study of a variety of communication disorders. So far, the series has covered the following topics:

- Signed Language Disorders
- Assessment of Language Disorders
- Motor Speech Disorders
- Communication Disorders
- Speech Sound Disorders
- Multilingual Aphasia
- Fluency Disorders
- Voice Disorders
- LARSP
- Dyslexia

More information about the series and books can be found on our website www.multilingual-matters.com. To make the most of this offer, browse our website for the books you are interested in, add the book(s) that you would like to buy to your basket, and use the code NYADGIDS at the checkout to get 25% off the list price.

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