SSW Reports

30th Anniversary Issue

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Longevity – The Older the Wiser?

Jack Katz

Longevity is a good thing as long as the person has a reasonable quality of life. People say that as we get older we get wiser. If that is true; it is because the more you hear and see the better you get at understanding human beings and human nature. Perhaps the same could be said for formal methods (tests) that measure human behavior.

The SSW test coalesced during a midnight feeding of a 2-month old baby. I would like to say that I had such a good understanding of what would be helpful in diagnosis of central problems that I was able to develop the SSW into the procedure that it is today. But of course, that would be untrue, as I just had a gut feeling about the features that could make for a good central test based on what little was known about central auditory measures at that time.

Central testing was in its infancy when the first version of the SSW test came out in 1961. My first reaction when I heard the test was that it was far too easy, it will not work! It is a great benefit to the test that it is indeed easy for the average person, but it is often very difficult for those with APD. Recently, I tested an adult who responded very well and with confidence to the four practice items. But when the first test item came out she lurched forward in her chair as if stabbed or given a strong electric shock

and exclaimed loudly "OH!". [If an SSW item can produce such a reaction, dichotic testing may help to solve the energy crisis.]

Over the years the SSW has evolved as we 'heard more and saw more'. We took advantage of what we learned from those with brain lesions and then from those with the most severe APD. Because APD is so complex it often takes an extreme and specific example to help us to understand what is going on. Both the populations that were tested and the years of observation have enriched the SSW test greatly.

The work of Bruce Porch, an Aphasiologist, influenced me a great deal. He had a publication for those who were interested in the PICA test that he developed. Unfortunately their publication was short-lived, but it gave me the idea that perhaps a newsletter would help audiologists to better understand the SSW and for us to come together to give us 'group genius' (as you will see).

The first issue of the SSW Newsletter came out in Nov. 1978 and has been distributed every 3 months (more or less) for 30 years. In 1982 the name was changed to SSW Reports.

I asked a few, mostly old time, SSW users to share some thoughts with the other readers. Please read on.

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30 Years of SSW Study Group and Reports

I can't believe it has been 30 years (am I really that old)! The first meeting of the SSW Study group convened at the 1978 ASHA convention in San Francisco in my hotel room. There were about eight in attendance, including Jack, myself, a few of University at Buffalo students and some others. The group met annually for the next 27 years, first at ASHA conventions in November and for the last few years at AAA conventions. We met in hotel rooms for a few years but the number of attendees grew quickly and we needed to move to a larger space, usually a convention center room. The agenda always focused on SSW updates, current research and discussion of cases. Following the meeting, most in attendance got together for dinner and refreshments. I always looked forward to the meetings. Besides being educational and a forum for exchange of ideas, it was a wonderful way to network with like-minded audiologists and a few speech-language pathologists (yes we let them in). There were so many exciting discussions and great times all in the name of the SSW test!

The quarterly SSW Reports was first published 30 years ago and distributed at the first SSW Study Group meeting. The circulation began with a few subscribers, but soon grew to include over 250 and is still growing. There have been many guest writers and editors over the last 30 years and presently Kim Tillery, Susan Brandner, Jack Katz, and Nancy Stecker alternate as editors. While the Study Group gave us face-to-face interaction for those who could make it, the Newsletter/ Reports provided ideas and data throughout the year for all. I'm sure it will continue to be the best source of communication among those interested not only in the SSW test but in all areas of auditory processing and central auditory testing!

Nancy Stecker, Ph.D. University at Buffalo

What I Learned from my First Two SSW Studies

I employed the SSW first for my Master's thesis in 1964 when little was known about the SSW or CAPD. Initially I had run three of my

wife's young cousins for practice - 10 years of age and younger. Results showed an apparent right ear advantage (REA) decreasing with age. Among my 60 subjects -7 to 11 years this REA also was shown. In my thesis Discussion section I averred that for children seven to 11 years of age cerebral dominance effects (REA) might play a role in results because of various degrees of language development whereas for the elderly the REA may suggest the opposite (from normal linguistic processing a gradual breakdown of CANS connections). Based on an N of 3, I suggested that overall performance would improve with age to 11 years with a reduction in the REA! With time that's exactly what was found for the SSW and other central tests.

I evaluated 30 adults (57-90 years of age) on the SSW and compared it with the Fairbanks Hearing Handicap Scale (HHS) (Brunt and Goetzinger, 1968). My rationale - the SSW would be sensitive to a greater proportion of the auditory system then simple discrimination tests like the W-22s. Each of the 8-Cardinal-Numbers was significantly correlated with the HHS and each of the correlations was essentially the same. Therefore, I suggested that the total raw SSW score might be used along with the HHS as related measures of hearing handicap. Results suggested that evaluation of hearing handicap, at least for the elderly, should look at both peripheral as well as central tests of auditory function (Brunt, 1978).

Brunt, M. (1978). Staggered Spondaic Word Test. In Handbook of Clinical Audiology, 2nd Ed.

Brunt, M. and Goetzinger, C. (1968). A study of three tests of central function with normal hearing subjects. Cortex, 4:288-297.

Mike Brunt Professor Emeritus Illinois State University, Normal, III

Comments Regarding the SSW Test and the Buffalo Model for the 30th Anniversary Edition of SSW Reports

WOW! 30 years for *SSW Reports*! Don't know how many of you remember the *SSW Newsletter*, its predecessor. This is a personal reflection on these publications and how they have led to the sharing of information related to assessment, management, and treatment of people with APD.

When I first learned of the SSW Test, I had the luxury of working as an educational audiologist in a school system in New York State. This allowed me to identify the diagnostic significance of the Type A pattern on the SSW. And, where was that information shared with fellow professionals? In an issue of the SSW Newletter. Some time later, I analyzed the data for 100 children and identified various categories of APD including the fourth category of the Buffalo Model, Organization type APD based on their reversals on the SSW and the Phonemic Synthesis (PS) tests. That was also something I was able to share with others through publication in the SSW Newsletter.

That article presented different categories of APD. It identified not only the Organization category but also a second category of auditory integration: the Type A pattern plus what I called the Lucker Type 1 or single peak pattern (LC peak on the SSW). I then identified a category I felt related more to auditory lexical (word) decoding that I called the Lucker Type 2 or double peak pattern (both LC and RC peaks on the SSW). I also use two other categories based on memory problems shown on the SSW test: input memory deficits (based on the order LH) and output or recall memory deficits (based on the order HL).

More recently when the controversy over the age for testing children hit a high point and Dr. Katz published his issue on testing children below seven years of age, I presented my research on APD findings in children four years to 11 years of age. I was able to share that information in *SSW Reports*.

When considering the value of this minijournal, *SSW Reports*, and its predecessor, *SSW Newsletter*, it is interesting to note that many important topics related to assessment, management, and treatment of people with APD issues have been shared through this format. I say, "Hats off to *SSW Reports*. May we celebrate its 30th anniversary and more."

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Buffalo Model Helps Many Struggling Students

With regards to the 30th year celebration of vour newsletter. I would like to comment on how helpful the newsletter has been in assisting with diagnosing as well as preparing individualized therapy programs for our patients who have been diagnosed with CAPD. I have been using the original computer scoring program since you announced its arrival. I love being able to obtain scores in a few seconds and I especially appreciate your interpretations of the test results as well as suggestions for remediation. I have helped numerous children who have experienced significant frustration in school because of persistent academic struggling and failures. I am dually certified so as an Audiologist I am able to provide the diagnostic assessment by utilizing your Buffalo Model and as a Speech Pathologist I am able to design a remediation program for each student which helps them climb the ladder to academic success instead of failure. We look forward to many, many more years of reading the newsletter - you are one in a million Jack Katz!

> Carol Letzter, Au.D. Harmony Hearing & Speech Center Bellmore, NY

The SSW a Critical Test

The SSW Test made my career! It often has allowed me to be the go-to person in diagnosing and habilitating children with learning problems when no one else has been able to. The power of this test cannot be denied; it is unwavering; it holds up in any situation. If a communication and/or learning problem in a child or adult has an auditory basis, it will be revealed by the SSW Test. I believe that Audiologists cannot diagnose completely and properly without the SSW Test.

John Page, Ph.D. Sacred Heart Hospital Allentown, PA 18102

The Power of the SSW Test

When I was asked by Dr. Katz to write a short pearl of information on the SSW my mind raced through the many uses and

value of this test. However, I am always amazed of how well this test is capable of identifying the functional implications of the individual. Many of the patients that we see for (C)APD evaluations have been evaluated by other professionals and already may be receiving services. However, the parents /guardians are often amazed at how well we are able to describe the child and discuss the difficulties that they experience. This is due to the strong functional implications that are associated with the SSW. It also illustrates the importance of the auditory system in the learning process.

It is extremely important to understand and use the functional implications because our reports are not sent to fellow audiologist who understand (C)APD. Our reports are sent to the schools to be read by individuals with little to no background in this complex area of sound utilization. It is our responsibility to write reports that incorporate the functional weaknesses identified to allow the development of appropriate direct remediation, compensatory strategies, and environmental modifications. If we do not incorporate the functional characteristics into our reports the school professionals may misinterpret our findings which will result in interventions that are not appropriate for the individual. Further, it will educate the school personal to recognize and consider (central) auditory processing disorders prior to behavioral issues, ADD/ ADHD, reading problems, and/or speech and language weaknesses.

> Thomas R. Zalewski, Ph.D., CCC-A Associate Professor of Audiology Bloomsburg University

I Can Go On & On about the SSW & How it Helped Me Help 100s of Kids

For many years I have enjoyed reading the SSW Reports and gaining new insight from my colleagues (family really) about its application and how it has helped them. It has also given me the confidence to continue when so many people doubted me about this area of concern. When I first began doing "Central Auditory Processing Testing", I was using another (the Willeford) approach, which I learned in grad school. It was difficult for me to know how to apply my findings to actually help children academically. So I became very dis-

couraged and I discontinued CAPD testing until I was introduced to the Buffalo Model. I attended my first of many SSW Workshops and learned how to make actual helpful academic suggestions in my reports.

In the early years, I found much opposition to my testing. As I was asked to make presentations from time to time, I found myself defending CAPD as something that actually existed. The psychologists were then my main opposition. I felt that the psychologist "hecklers" in my audiences felt that I was treading on their turf. I joined the trend to drop the word "central" and call it Auditory Processing Disorders (APD). Now I find that my business is as "robust" as I would care for, and guess which professionals refer to me the most!?!?!? Psychologists! I am glad that I could be around long enough to see the circle be complete. I thank Jack Katz the most for all his research and development, teaching, patience and wonderful encouragement through his personal correspondence and, of course, the SSW Reports.

Gary Pillow, Ed.D., Au.D. Covington, VA

Twenty-eight Years with the SSW

A mother told me, "I knew something was wrong. Everyone told me I was just looking for something and that my son is just lazy." A parent's relief was a satisfying moment in my early experience using the SSW.

"That describes the student perfectly!" said a teacher as I cautiously explained the results of the SSW that was performed by an audiologist I didn't know (I had only the 8 CNs). I told her she would get additional helpful reports when other children were evaluated for CAPD.

A year after his initial evaluation, a teen did very well on re-evaluation. The mother said that she was afraid to have him retested; she had seen a great improvement and was afraid of being wrong. When I asked the mom what she had done for the child she said, "Oh, we did everything you suggested, he worked with the speech pathologist and the OT."

A mom tracked me down at home many years after I had tested her teenage daughter and said "Your report and the speech pathologist's

report were the only ones that made sense. You said that because "Cinnamon" was over 10 years of age that the actual problems that she might be experiencing could be greater than the actual test numbers indicate." She asked, "Can you still help her now?"

Originally, it was just the SSW that enabled me to help children and their families. I feel that the Buffalo Battery has made me an even better diagnostician because several tests look at Decoding, Tolerance/Fading Memory (we still need a better name for this), Organization and especially in Central NJ, Integration. And for those people who say "If you see Susan Brandner she will find APD," I'd like them to know that this summer, for the second time, I found a child who doesn't have APD;).

Periodically I'll add tests to the battery. Perhaps I don't understand them but they never give me new information that I have not already gleaned from the Buffalo Battery. It's been a fabulous professional ride and now I must follow Jack's example and start to do some therapy – life does not have an assistive listening device.

Susan Brandner Newark NJ School System, and Private Practice

The SSW in Spanish

The first SSW Spanish language version (SLV) was created in 1990 by Soto-Ramos, Windham and Katz. The SSW-SLV is similar in construction and diagnostic features to the English version of the test. In the Spanish language there are no spondees so double bisyllabic words were used in its test construction. SLV was created more than 15 years ago but since early 2000 there has been growing interest in assessment of APD in Spanish-speaking countries. Since then the SSW-SLV has become one of the main tests for APD.

The norms for the SSW SLV were obtained by Soto-Ramos in 1992 (Santiago de Chile). My experience, in recent years, has shown that the SSW-SLV is a valuable for evaluating children for APD and providing important information in the hearing aid fitting process for older people, especially when considering monaural amplification. We have tested over 100 elderly patients with hearing loss which gave us

very useful insights for understanding the age related changes. We have carried out other research, for example, we found that although the stimuli used in the SLV were different, from the American test, the intensity is not a major factor for intelligible performance in most normal hearing people. It is very interesting that we can use presentation levels as low as 25 dB SL re PTA, and get essentially the same SSW score as is the case for the American test.

Much more research is needed with SSW SLV. However, the SSW-SLV has already provided us with a valuable tool to asses and to better understand the central auditory system in the Hispano American population.

Oscar Cañete S Unidad de Audiología Clínica Servicio de Otorrinolaringología HOSPITAL PADRE HURTADO CHILE

Gathered Qualitative Information Using SSW Test

As a clinician way back in 1992 I began to record clients' qualitative responses during the administration of the SSW test. I would record how the person responded, such as when there were delays, very long delays, quick responses or when a person interrupted the carrier phrase etc. The same year I received a mailing about the publication of the first text on CAPD. The book's title indicated that professionals should be working together, "CAPD: A Transdisciplinary View". I just smiled as I began to read the chapter on site of lesion with specific SSW qualitative indicators.

Are you ready? There in print were numerous indicators that I had recognized as a clinician when administering this test. The SSW test led the way for other dichotic tests to be designed. It would seem reasonable that the Dichotic Digits (1980's) and Competing Sentence (1978) Tests were developed after learning about the SSW (1962) test. One of the important reasons that this test is in my CAP test battery is that the SSW is perhaps the only normed test for ages 5 to 69 years for both quantitative and qualitative indicators. Thank you, Jack.

Kim Tillery, Ph.D. Associate Professor SUNY at Fredonia & Private Practice

Some of My Thoughts

First let me thank my colleagues and friends for sharing their thoughts and experiences with us. It is most rewarding to hear that the SSW, the Buffalo Model/Battery and SSW Reports have had such a positive impact on these colleagues and that they have had such a powerful impact on their clients with APD.

I had no clue how far the SSW and its derivatives would go and how long they would last when I first thought up the test and the Newsletter. What I did know was that the test was an exciting idea that might be useful in helping with diagnosis, but I had no idea how it could or would do that. So many people have contributed their ideas, their time, research and clinical observations that have made these tests what they are today.

While I was a professor, even supervising in the clinic or doing therapy with a small number of patients; I did not have the insights or compulsion to move forward full-speed (or as fast as I could go) in improving on my life's work. Going into private practice changed all that. When my patients' improvement stalled or I lacked the information to be fully comfortable with my diagnosis it compelled me to go further.

Oftentimes one is not as accurate an observer of ones own work as an unbiased observer, but on the occasion of the 30th anniversary of SSW Reports and the 48th anniversary of the SSW test (last month) I decided to make some brief observations.

What SSW test characteristics contribute most importantly to its effectiveness:

- 1. Mapping the brain with data from patients with specific brain lesions told us what the test could differentiate.
- Staggered nature of the test provided a different challenge to the CANS and enabled multi-modal scoring.
- Multi-modal scoring for such a complex disorder enables us to take many looks at the same problem. If the brain can 'beat' 1 or 2 of the measures the others can still detect the problem.
- 4. Counter-balancing test items provides unique insights/comparisons.

5. Simple vocabulary and task for normals permit application to various populations and develop sensitive norms.

Therapy for Central Auditory Processing Disorders

I am most excited to announce that I have been working on a book dealing with the APD therapy techniques which I've developed over the past 50+ years. Some have never been written about before; others have not been explained in such detail or with so much hands-on information.

This has been such an exhilarating project for me. It relates the bases of APD, ala Buffalo Model, to the disabilities associated with different regions of the brain and the APD categories. It discusses the test battery and its contributions to diagnosis of APD. Then the book goes into the principles of therapy that apply pretty well across these techniques. For each technique there's an explanation of what problems it addresses and step-by-step information about how to do it and what to do if progress stalls. Then data are presented on the results of each therapy technique mostly gathered over the past 5 years.

The therapy techniques that are discussed are Phonemic Synthesis, Phonemic Training Program, Speech-in-Noise, Memory and Sequencing, Dichotic Offset Measure, Localization Clock, plus other chapters that deal with Hard-of-Hearing & Cochlear Implant patients, the Mentally Challenged, Other Populations, and chapters on Group Therapy, and Monitoring Progress and Re-Evaluation.

In order to hold down the price and to enable forms to be copied the book will come out in a loose leaf binder and perhaps in an electronic format as well.

I am writing this book along with colleagues for Educational Audiology Association (EAA) <eaa@imigroup.org>. The 'Therapy for APD' book should be completed by the end of the year and available soon after that at a reasonable price. The authors will receive no royalties, just the satisfaction of sharing this unique information with you. It is our hope that you and your colleagues who make specific recommendations for remediation and those of you who might want to try out therapy (an exciting and growing aspect of audiology) will be interested in this book.