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REPORTS

DEAR ACKIE IS AWAY, BUT SIX QUESTIONS
WERE ASKED AND FIVE WERE ANSWERED
(JK TRIED, BUT HE'S CLEARLY NO ACKIE)

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As fate would have it, we received several important questions in the mail regarding the SSW and central testing/rehabilitation, but Dear Ackie[1] is on an extended vacation. The requests came to The SSW Building, here on Park Avenue in N.Y.C., and sent to Ackie's office on the 13th floor. It was then re-routed to the Temporary Editor (JK) on the fourth floor, for a response.

DISCLAIMER: Because Ackie is not here to answer your questions, we realize that errors might creep in. After all, the view from the 13th floor is better than from the fourth floor (except today with the rain clouds hovering above). In addition, this issue might be a bit dry, because there will be no intended humor. (Of course, what passes for humor in SSW Reports is generally unintended).

IS IT PERSEVERATION OR THE AVAILABLE WORD?

Question: When a person reuses a non-competing word in an SSW item, why is this not considered a perseveration?

This is a question that has bothered other SSW users in the past. Let's see if I can provide a reasonable explanation of the difference, how to score each of them as well as how to interpret them.

The Short Answer: The Available Word is one of the two non-competing words of an SSW item. When a person does not know one of the competing words, he or she can pull the opposite non-competing word to form a spondee (incorrectly). This occurs because the SSW items were set up this way. It is not a true perseveration. In fact, it is not clear if it has any diagnostic significance, so there is no symbol or notation that is used to identify the use of the available word.

A perseveration is the use of a word from a recent item. Often it is phonemically related to the target word (but often times it is not). This is a common error in those who have decoding problems. We show this sign by circling a capital (P) in the numbered box when a perseveration occurs.

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[1] For the benefit of new readers of SSW Reports, Dear Ackie usually responds to questions that are sent in. Not unlike her cousin, Dear Abbie, she is haughty, conceited, intolerant, but also very knowledgeable about the SSW.

The Long Answer: The available word deserves a little more explanation than perseveration, so let's start with it (while you are still fresh). You may be surprised to know that every SSW item has not two, but three spondees embedded in it. For example, item 5 has corn bread, oat meal, accounting for two spondees. The third spondee is made up of the non-competing words, that is, corn meal. Whenever a person misses a competing word from one spondee, there is always another spondee from the other non-competing word, waiting to be said.

Why would a person use the available word? We don't know for sure, but our best guess is that the person couldn't make out one of the competing words. However, it is obvious that the person realized that there was a fourth word to the item. Not knowing the word or the phonemes that make it up (but realizing the spondee nature of the items) the person might imagine that the available word was given because of the linguistic strength of the spondee. Some have more linguistic strength than others (e.g., up town in item #1 is strong compared to wood craft in item #34). Patients are more likely to give the linguistically strong spondees at first, but once getting the hang of this error, they feel free to use the available word in less attractive combinations.

We don't know any particular diagnostic group that characteristically uses the available word, but I can imagine those with poor organizational skills, poor decoding and/or poor memory ability to have reason to use the available word. The available word is simply a linguistic substitution[2].

Below you can see that the available word occurs when there is an error on a competing word and the non-competing word from the other spondee is used.

What is heard by the patient	How patient fills in the missing word
Correct	Correct
corn bread, oat meal	corn bread, oat meal
Misheard	**Available Word**
corn ?????, oat meal	corn meal, oat meal
corn bread, ??? meal	corn bread, corn meal
Misheard	(Just) Two Omissions
corn ?????, ??? meal	corn meal

[2] Be sure NOT to mark the use of the available word as a sequencing error! It is just a substitution re-using one of the non-competing words.

There is no scoring designation for use of the available word as it has no diagnostic significance, that I know of. I am pleased when I see a patient use the available word because at least he isn't guessing with a viable word.

So much for the available word. What is a perseveration? A perseveration on the SSW test is when a person repeats a word incorrectly that was given in a recent item (usually correctly, but could be incorrectly).

We see perseverations especially in those with poor decoding skills. It seems to me that a perseveration is a conscious search for the missing word. The person realizes that one word is missing and searches his lexicon for it. The words that come to mind are those that were used recently, especially if they sound alike in some way (e.g., start with the same letter), or begin to sound alike as the person continues to lose the vague auditory image.

Heard for item #		Response from Item #
		Perseveration
#5 corn ?????, oat meal	(P)	corn black, oat meal #6
#16 school boy, ?????? bell	(P)	school boy, shine bell #13
		Probably Not a Perseveration
#38 sheep ????, bull dog		sheep side, bull dog #2

Perseverations are usually not far removed from the other item, and one can perseverate more than once using the same word. In fact if the person is going to perseverate again, the previous perseveration is more likely to be repeated and for less obvious reasons.

THE IMPORTANCE OF QUALIFIERS ALONE ON THE SSW OR PHONEMIC SYNTHESIS TESTS

Question: Mary Ann Littrell asks, If the SSW or Phonemic Synthesis scores are not significant, but qualifiers strongly point to a specific problem, is that an indication by itself.

The Short Answer: The audiologist is paid, as a professional hopefully, to diagnose cases with possible auditory impairments. It is nice and relatively easy when everything points the same way. However, the most challenging cases are the ones that are not so clear cut. If you are testing a one-year-old for mild hearing loss and you are not sure if there is a loss, you need to say so and if you are sure of a loss, you are obligated to report that.

If you are quite sure of a CAP problem or a particular type of CAPD, I would say so and why I think so. If the hard evidence is lacking but the

softer signs are very clear (and make sense with regard to the complaint) then I feel the audiologist is obligated to make a statement. It is proper to explain that you are not using the traditional indicators, but can't ignore the major signs that you see, if you believe them.

The Long Answer: We are never 100.00000% sure of anything in life because life is not perfect and our perceptions are not infallible. Thus, as an audiologist we work with probability. We accept and reject our results with varying levels of confidence. I would put little faith in an ABR wave I that was shown to occur at a latency of <1 ms. On the other hand I would put a great deal of faith in a response at 30dB with a head turn in the proper direction on three separate trials.

The quantitative aspects of the SSW and Phonemic Synthesis tests are the best documented and the normative data are statistically stated and the reliability is known. So when we see positive findings on these aspects we are likely to feel more confidence and greater credibility.

Now, here is the part where life is not perfect. Given any sign, we must decide if this is a chance occurrence, an artifact or a real finding. If we decide that it is a real finding, how strong is the statement that it makes and what do we learn from it?

If the child says "Are you ready, up stairs, down town" and you say that's very nice, Johnny, but don't say the <u>are you ready</u> part, okay? Just the words that come after it." The child tries and on a few items succeeds in not saying AYR, but over all has 31 AYRs despite several attempts to reinstruct and train him. In this case there is little doubt in my mind that the youngster has difficulty saying the item without the AYR. Would this be enough to say the child has a Tolerance-Fading memory problem, depends on what else you found and what else you know about the child.

If the child isn't selective in learning, but rather takes in "all or none" of what is said, that is very well supported by the findings. I would not extrapolate to a TFM problem unless there was some more evidence (i.e., a short-term memory problem, close to significant speech-in-noise score and a strong indication from the parents that the child is extremely hyper sensitive to background noise. The I might say, "There was a report of a memory problem and we found a tendency toward a speech-in-noise problem, thus the AYR lends some support for a TFM problem. Also, we may not have gotten positive speech-in-noise scores because of the poor WDS in quiet. The recognition in noise score is subtracted from the discrimination in quiet. Thus the poor performance in quiet may have reduced the sensitivity of this measure."

DISCRIMINATION IN QUIET AND CENTRAL TESTS

Question: Mary Ann states, <u>a 6-year-old's SSW and Phonemic Synthesis results were within normal limits, but he performed very poorly on taped discrimination vs. live voice (by 30 to 40%!). I felt the discrim problem itself was a significant CAP sign in a child with reading and attention difficulties, problems with directions and with background noise. The audiologist who performed the test was not sure what she could "call" the problem. Your feedback is appreciated</u>.
The Short Answer: I assume that the child had normal hearing. The outer,

middle, and inner ears as well as the VIII nerve can be excluded from the list of potential etiologies because each one of them would produce a hearing loss. Very poor discrimination with normal hearing is most surely a central sign (to my way of thinking). So I would call it a "CAP discrimination problem".

The Long Answer: I agree that poor discrimination could well contribute to a reading problem as well as hyperactivity, difficulty with instructions and listening in noise. If I had to put money on it, I would choose the brainstem level as the problem.

You did not say whether the discrimination problem was unilateral or bilateral or if there was any significant medical history. If the word recognition problem was unilateral, I would look for an abnormal ABR on the affected side with interwave latencies I-III and/or III-V being significantly greater than the normal side.

If you do an ABR, I would stimulate each ear separately, and record both ipsilaterally and contralaterally. Look for "hurry up" as well as elongated interwave latencies.

Your case brings up other interesting questions. Why do we see such a change in WDS from live voice to recorded speech. It has been my observation for many years that CAP cases, especially young ones may show significant drops from live voice to recordings. I think this is a function of fidelity/redundancy of the live voice signal. In addition, there may be a tendency to accommodate to the child, thinking that discrim should be very good and if not I might not be speaking clearly enough. Usually, I see a drop of 20% or so. Therefore, your case is quite striking in the degree of deviation.

It is obvious, if you use the C-SSW score that there is a problem if you have a poor central discrimination score in a CAP case. Because, when you correct the R-SSW, the central discrim will normalize the poor SSW. There are several ways to handle this.

In the SSW Workshop Manual, page J-6, it shows R-SSW norms for young children. It describes your case fairly well (below). Mary Ann, please try using the table (J-3) in your Workshop Manual and see if this helps.

> "In some cases, WDS cannot be obtained or the scores may be poorer than is reasonable, potentially concealing central auditory errors on the SSW. In such a case one could evaluate the R-SSW performance, as long as there is no hearing problem. Table J-3 shows the R-SSW norms for 5- and 6-year-olds, as these are the children most likely to have spurious WDSs."

A second approach is to evaluate the central performance statistically, for both SSW and WDS separately. Two recent issues have dealt with the number of errors (NOE) analysis. This is a great example of the value of these new methods (please see p 21 of the November 1994 issue for the table).

Please try out the NOE norms and see if the SSW as well as the WDS show up as having significant central signs. For 6-year-olds use the normal limits below.

*RNC	RC	LC	RNC	TOT	REV	**EAR	ORD	***WDSR	WDSL
4	10	15	5	30	4	-6 +2	-7 +9	89	88

Six-year-old NOE normal limits for SSW and WDS. Note: *most SSW scores abnormal if they exceed normal limits; **however Ear and Order Effects cannot exceed the limits in either the positive or negative direction; ***WDS scores are abnormal if they are below the values shown.

It is obvious that, at least, the WDS will be significant and perhaps you will have much more to say about the CAPD if some of the SSW factors exceed normal limits as well.

BASIC / ADVANCED SSW WORKSHOPS?

Question: Mary Ann's last question was, When are your next workshops scheduled, and will there be any advanced ones?

The Short Answer: Yes and maybe.
The Long Answer: We have two Basic SSW Workshops scheduled for the Fall.

September 28-30, 1995, Greenville, NC (East Carolina U), Johnnie Sexton
October 19-21, 1995, Charlottesville, VA (U of VA Health Sci Ctr), Roger Ruth

If you are interested in either of them, or if you are interested in attending an Advanced SSW Workshop, please let me know.

ESSENTIALLY NORMAL HEARING, BUT SOUNDS DEAF AND ACTS HEARING IMPAIRED

Question posed by Clella Steinke, a SLP in a public school: A 7-year-old first grader was referred by his teacher for articulation screening. He exhibited multiple substitutions and omissions. However, my impression from hearing him speak was that he sounded like a deaf child. I screened his hearing at 25dB from 1000 to 4000 Hz and when no responses were obtained I obtained thresholds of 50-80dB on 3 different occasions. I found out that a hearing aid dealer had obtained the same results as I, so I suggested that the child be tested at a University Audiology Clinic for a comprehensive examination.

Their results were quite surprising. Initially he responded at 60-70dB in each ear. The clinician reported that the boy preferred "loud sounds". They struck a deal, if he would show when he heard the "little sounds", he could have one loud sound at the end of each frequency test. The child responded at 10 to 25dB, across the frequencies, in each ear.

Despite his normal hearing, he watches every move my mouth makes while speaking; he asks for things to be repeated constantly and continues to sound deaf. He does not appear to benefit from hearing aids or a personal FM unit.

I believe that he has some sort of CAPD, but I don't know what to do to help him. Can you help me?

The Short Answer: No, but, perhaps one or two of our readers will have some suggestions. Please send me any ideas for Clella Steinke for a later issue!