Specific Language Impairment

Part One: Identifying SLI and Improving Therapy Techniques


As a young mother, Trisha had been very concerned about her preschooler Aiden’s language, “Aiden had been slow to talk initially, and it didn’t appear that he had ever caught up to the other kids in his playgroup. . . I felt that it was time to do something.”

After a range of tests with a speech/language pathologist (SLP), Trisha and her husband, Michael, attended a feedback meeting. Both were encouraged to hear that most of Aiden’s skills were developmentally on target. However, his language development fell significantly behind those of his age group. This meant that the most likely diagnosis was specific language impairment or SLI. These days, Trisha, the SLP and the local school system are working together to find the best intervention options that will help Aiden in preparing for kindergarten and making new friends.

SLI affects 6-7% of children around kindergarten age. SLI is a condition of children who have delayed mastery of language skills compared to their peers. Children with SLI do not have restricted language because of mental

Bouncing Back

Two young brothers close in age lived in a crack house and then suffered further abuse in foster care. The older was a polite B student, the younger had multiple, intractable psychiatric problems. Why was one child resilient and the other terribly damaged by the same experiences?

That’s what Yo Jackson, associate professor of clinical child psychology and child psychologist, wanted to know when she co-counseled the brothers early in her career and that’s what she hopes to learn from a major five-year National Institutes of Health grant that will study what she calls the “process of resiliency” in children.

While resiliency in children has been studied for at least 50 years, it is only now that there is statistical methodology that will allow

Jackson and her colleagues to look at multiple environmental influences at the same time and over time.

Foster children and their foster parents in Jackson, County, Missouri, are the focus of her study. “While the great majority of children exposed to maltreatment are never removed from their homes, foster children are those whose maltreatment has risen to a certain threshold such that they have been removed from their homes,” Jackson explained.

Jackson said that the project will be able to provide those who design and implement programs for foster children with the necessary tools to be systematic about what they do. “Our project is the first step towards making meaningful change in translational research.
disability, hearing loss, autism, or any other apparent reason. Some may not begin to talk until their third or fourth year, and when language does begin, children speak in short sentences showing particular problems with verbs. An additional, trustworthy source for more SLI facts can be found at www.merrill.ku.edu.

Currently, research is underway at KU on this multi-faceted language disorder. Several BNCD researchers investigate a wide range of SLI characteristics, which will be highlighted throughout upcoming articles. Our investigators explore aspects of SLI including diagnosis, speech, genetics, syntax, word learning, treatment, etc. The aim of our BNCD research is a more complete understanding of the nature of the disorder in order to improve diagnostic and treatment processes.

The remainder of this article focuses on a study being conducted by Dr. Marc E. Fey at the University of Kansas Medical Center that could lead to more effective therapy techniques for children with SLI.

Fey describes his study as a test of the "hypothesis that certain types of sentences in English, which are perfectly grammatical and are commonly used by adults when they talk with children, could actually mislead the children and slow down their development." Take for example, the sentences 'We saw THE MAN LAUGHING' and 'Does THE MAN LAUGH?' If a child does not comprehend the entire meaning of sentences they hear and pays specific attention to the ends of the sentences, the child "may be misled into thinking that these 'part-sentences' can be used on their own." The child may mistakenly think a sequence like, 'Now, THE MAN LAUGHING' and 'THE MAN always LAUGH' is acceptable. "If we find that this is the case, we will test a therapy program specially designed to limit this type of sentence . . . to children with SLI."

To participate in the project: see further information on left.

Next Issue: Part Two of SLI

Jackson asserts that now there is a lot of trial and error, guessing and intuition about treating children who have been abused. "I'm fairly certain this study will net us quite a bit of counterintuitive results," Jackson predicted.

In addition to its central aims, the project will also explore the differences between verbal and nonverbal IQ scores, because the two scores are often not affected equally by traumatic experiences. Specifically, verbal skills are usually delayed and not as well developed as perceptual skills. Preliminary results from a small sample indicate that children with higher verbal IQ scores demonstrate less anxiety, fear, and depression than children with lower verbal IQ scores. Therefore, verbal IQ may be an important factor in predicting positive outcomes for foster care youth.

So who is the resilient child? Resilient children are not super children, says Jackson, and you would never guess what they had been through. "What we are really talking about is the everyday process about everyday accomplishments."

"The boy that I saw so many years ago was the older brother. He didn't really have any problems. He wasn't terrifically talented in anything. Did he have a hard time talking about his mom? Absolutely. But that's not weird or strange."

"If we can find out what that kid had or the process by which he managed his environment the way he did, maybe then we can teach it to other children. I don't know if it is even teachable, but that is my hope."

To participate in SPARK project: see further information on left.
Do you have an autistic son between the ages of 2-5 years?

The current study is aimed at examining pupil and salivary responses, using non-invasive means.

**Participants:**
2-5 year old boys autism (Autistic Disorder and PDD-NOS, all levels of functioning) are needed to participate in the following study.

**Time commitment:**
At home: saliva sample and sleep survey. Two lab appointments including: a second saliva sample, test for eye gaze responses, and a series of standardized tests for IQ and language (results given to parent).

**Benefits:**
You will receive $50 for returning the home collected saliva samples and sleep survey. Then, you will receive an additional $40 for each lab visit, totaling $130 for participation in this research project.

**Contact:**
autismlab@ku.edu; (785) 312-5345

**Website:**
http://lsi.ku.edu/labs/neurocognitive_lab/

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**Do you want to volunteer for a research study on skin sense to touch and vibration?**

The purpose of this research study is to assess your ability to detect tiny vibrations applied to lips and hand

**Ages:** 21-70 years, healthy adults with no history of neurologic injury, disease, trauma, or oral surgery/dental procedures affecting the sense of touch in the lower face/hands (approximately 100 participants)

**Time commitment:** Study session will last no more than 1 hour. Scheduled at your convenience at the Communication Neuroscience Laboratories, 1315 Wakarusa Drive, Suite 114, Lawrence KS

**Benefits:** $20 for participation in this study

**Contact:** Lalit Venkatesan; 785-312-0282; lalit@ku.edu

**Website:** www.ku.edu/~cnl

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**Do you have trouble understanding your child’s speech?**

**Does your child have difficulty learning new words?**

The purpose of this research project is to examine word learning by preschool children with language or speech sound delays. We want to determine how the organization of words and sounds affects children’s ability to learn new words and to develop effective vocabulary teaching strategies.

**Ages:** 4-5 year old children with (1) language delays or (2) speech sound delays

**Time commitment:**
5 weekly sessions lasting 45- to 60-minutes. Sessions will be scheduled at your convenience in a suitable location (e.g., your home, nearby library, KU campus)

**Benefits:**
Free speech-language evaluation with report; small prizes for your child; compensation for travel expenses

**Contact:**
Word & Sound Learning Lab; 785-864-4873; wrdlrng@mail.ku.edu

**Website**:
www.ku.edu/~wrdlrng

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Dr. Fey is a Professor of Hearing and Speech at the University of Kansas Medical Center. His major areas of research interest include early speech and language intervention, the prediction and prevention of early written language problems, and the development of children's narrative abilities.

Influences to enter the speech/language field came to Dr. Marc Fey at a young age. “My mother was trained as a ‘speech correctionist’ at the University of Wichita in the 1940’s. She worked for decades at the Institute of Logopedics in Wichita, and I was inspired by what she did and by the individuals with whom she worked, including an art teacher and a librarian with severe cerebral palsy. I never had a term as an undergraduate in which I was not enrolled in a course in communication disorders, and I never looked back.”

After getting degree’s from Wichita State University, University of Georgia, and Purdue; Dr. Fey found himself teaching at a Canadian University in the 1980’s. “At that time, I was ready to come back to the States. . .When I found out [KU] had a job open, I pounced on it and have been here since 1990.”

Dr. Fey has published and edited numerous publications in his successful career and is currently collaborating on a study with Laurence Leonard of Purdue University to study input sources of grammatical deficits in specific language impairment (SLI).

**See Specific Language Impairment Article (page 1)**
About this Newsletter:
The BNCD newsletter is designed to keep you informed about the ongoing research projects that are being conducted by BNCD researchers at the University of Kansas. Participants who have been part of recent research projects conducted by BNCD researchers, parents who have expressed interest in participating in future research, and individuals from organizations such as schools and daycare centers that have an interest in BNCD studies will receive this newsletter from time to time to keep them up-to-date about the research activities at the BNCD. If you do not wish to receive future newsletters, please call or e-mail the BNCD to have your name removed from our list. Research at the BNCD is supported in part by grant number 5 P30 DC05803 from the National Institute on Deafness and other Communication Disorders (NIDCD) at the University of Kansas.