



THE STUTTERING FOUNDATION®

A Nonprofit Organization

WINTER 2008

Since 1947... Helping Those Who Stutter

Communication Disorders and Temperament

By Lisa Scott, Ph.D.
The Florida State University

Professionals are becoming increasingly interested in understanding how child temperament influences various communication disorders. One of the world's leading researchers on temperament, Jerome Kagan, Ph.D., a Daniel and Amy Starch Professor of Psychology at Harvard University, delivered a fascinating two-hour seminar entitled, *The Nature of Human Temperament* at the most recent American Speech-Language-Hearing Association convention. Dr. Kagan began his presentation by first defining the difference between temperament, personality, and mood. Temperament is the child's biological contribution to his own emotional, cognitive, and



Jerome Kagan, Ph.D.



Lisa Scott, Ph.D.

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Trouble at Recess: A Sure Hit

A new 30-page book written and illustrated by 8 year-old Jamie describes the tribulations that many children who stutter encounter both in the classroom and on the playground.

Jamie was encouraged to write the book by her speech-language pathologist, Julie Gasway, M.A., CCC-SLP.

"The initial goal of writing the story was to help Jamie develop a positive feeling about stuttering and an awareness that all kids have problems they have to deal with," said Gasway.

"The plot of *Trouble at Recess* was formed when Jamie started therapy with me. We read books about stuttering, watched other kids who stutter on the DVD *Stuttering: For Kids, By Kids*, and learned more about how others deal with teasing," added Gasway.

Molly, the main character who stutters, learns what to do when she is teased. She also learns what makes a good friend and how to teach classmates about stuttering.

Jamie shares, "I'm very excited that my book might help other children who

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Annenberg Foundation Grant Makes a Difference

Thanks to a generous grant from the Annenberg Foundation, the Stuttering Foundation mailed *The Child Who Stutters: To the Pediatrician* to 15,656 newly Board-certified pediatricians across the United States.



Because concerned parents first reach out to their child's doctor for answers about speech, giving pediatricians the tools they need to help these parents is of utmost importance.

Now in its 4th revised edition, *The Child Who Stutters: To the Pediatrician* was written by Edward G. Conture, Ph. D., and Barry Guitar, Ph. D., with editorial input from leading authorities in the field of stuttering and pediatrics.

The book presents information about the most recent research into early childhood stuttering by Ehud Yairi, Ph.D. and his colleagues at

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Neurological Incidents as Background Factors in Developmental Stuttering

By Per Alm, Ph.D.
Lund University, Sweden,
and The Stuttering Information
Center of Denmark

Several studies of heredity and genetics have shown that genes play an important role in the causal background of stuttering. In addition, these studies have shown that non-genetic factors also play a significant role. The nature of these non-genetic factors has been obscure. However, there is mounting evidence indicating that some early neurological incidents may contribute to the risk for development of stuttering.



Per Alm, Ph.D.

Higher frequency of early incidents in cases without stuttering relatives

One way to find indications about non-genetic factors is to compare groups of stuttering persons with and without stuttering relatives. An early study of this type was performed by Robert West and coworkers (1939), comparing two groups of about 100 stuttering persons each, with and without stuttering relatives. The result indicated that several background factors were more common in the group without stuttering relatives, for example infectious disease, diseases of the nervous system, injuries, and surgery.

The same tendency was found in a more recent study, by Poulos and Webster (1991). Early incidents were reported in 21 of 57 cases without family history of stuttering, to be compared with only 3 out of 112 cases with stuttering relatives. Most of these factors were physical, such as head injury or birth complications, but also three cases of intense fear were included.

Prevalence of stuttering in groups with early neurological incidents?

Another way to investigate this question is to study groups with suspected neurological incidents. Böhme (1968) investigated a group of 802 children and adults with supposed cerebral lesions, related to early adverse events. According to this report the prevalence of stuttering was surprisingly high. In the group with normal intelligence 24% were diagnosed as stuttering. Interestingly, the prevalence of stuttering was lower in groups with impaired intelligence, with only 2.4% in the group regarded to have the lowest intelligence. Some specific risk factors mentioned were concussion, with stuttering in 6 out of 11 cases, and premature birth with forceps delivery, with stuttering in 5 out of 5 cases.

A possible relation between concussion and stuttering was also reported by Segalowitz and Brown (1991). In a survey of high-school students 16% of 607 nonstuttering adolescents reported head injury with unconsciousness, to be compared with 6 of the 9 stuttering students in this survey (i.e., 67%). The frequency of all reported head injuries, also without unconsciousness, was 30% in the nonstuttering group, in contrast to 8 out of 9 stuttering students.

New study in Sweden

New data regarding the role of early neurological incidents comes from a study of stuttering adults, at Lund University, Sweden, recently published in Alm and Risberg (2007). In this study background factors and heredity were analyzed in relation to childhood traits of attention deficits, using a questionnaire for retrospective diagnosis of childhood ADHD or ADD (Attention Deficit Hyperactivity Disorder or Attention Deficit Disorder, without hyperactivity). The questionnaire was a subset of the Wender Utah Rating Scale (WURS).

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Christian, 7, with Cabinet Minister Ed Balls MP and Michael Palin.

Praise for Michael Palin Centre for Stammering Children

Kudos for Stuttering Foundation's Overseas Partner

On Nov. 26, 2007, Member of Parliament Emily Thornberry joined Cabinet Ministers Ed Balls MP and John Bercow MP — who is leading an independent review into provision for children and young people with speech, language and communications needs — to visit the world-leading Michael Palin Centre for Stammering Children in London.

During the visit they met children and young people who have been helped by the centre and discussed what should be done to improve the support for young people who stammer. They were welcomed to the centre by staff and writer, actor and broadcaster Michael Palin himself, who gave his name to the centre, following his portrayal of a stammering character in *A Fish Called Wanda*. He based the role on his own father who struggled with stammering all his life.

“It is exciting that MP Thornberry and Cabinet Ministers Ed Balls and John Bercow took the time to visit the MPC and are leading the effort to improve services for those who stutter,” said Jane Fraser. “We must work to build this level of national interest in the United States as well.” □



Cabinet Minister Ed Balls MP and Michael Palin pose for pictures with a group outside the Michael Palin Centre.

Research in Pakistan Moves Forward

By Dennis Drayna, Ph.D.
NIDCD

Research on genetic factors in stuttering moved ahead in November with meetings between researchers at the National Institute on Deafness and Other Communication Disorders (NIDCD) and scientists at the Centre of Excellence in Molecular Biology (CEMB) at the University of Punjab, in Lahore, Pakistan.



Dennis Drayna, Ph.D.

The NIDCD team was led by Dr. Dennis Drayna, who met with university officials and Dr. S. Riazuddin, the director of the CEMB, to coordinate the identification and sampling of Pakistani families with multiple cases of stuttering.



Mohammad Rafeeq, M. Hashim Raza, Dennis Drayna, Mohammad Amjad, and Mohammad Yousef.

Traditional marriage customs in Pakistan result in frequent marriages between cousins, giving the Pakistani population a relatively high degree of inbreeding. Such inbreeding can bring out genetic disorders

in families and make them more accessible for study by scientists. The NIDCD-/CEMB collaboration is further reinforced by the participation of Mr. Hashim Raza, a Ph.D. student enrolled at the University of Punjab, who is pursuing his thesis research on stuttering in Dr. Drayna's laboratory at the NIDCD.

"Our previous stuttering research in Pakistan has made significant progress, and on this visit I had the chance to meet a number of our research subjects, which was wonderful. We also identified several new families in which there are many cases of stuttering, providing important resources for our future work," said Dr. Drayna.

The overall goal of genetic research on stuttering is to identify the specific genetic alterations that give rise to stuttering in some families, to better understand the fundamental causes

of the disorder. A better understanding of the causes of stuttering may lead to improved diagnosis and treatment, and provide new avenues for research in speech disorders. □

Atypical Cerebral Laterality: Neural Risk for Stuttering?

By Anne L. Foundas, MD
Tulane University Health Sciences Center

Editor's note: The Stuttering Foundation is pleased to support Dr. Foundas' new research.

Atypical cerebral laterality was proposed as a potential central defect in developmental stuttering in 1927 when Orton wrote that stuttering may be the result of incomplete cerebral dominance.

Support for this early speculation may be found in the more recent theory of cerebral laterality (for review: Geschwind & Galaburda, 1985). According to this theory, brain organization can be defined as "typical" or "atypical" (anomalous).



Anne L. Foundas, M.D.

Typical brain organization includes left hemispheric dominance for language and right hemispheric dominance for emotion and attention. Typical brain organization occurs in about 70 per cent of the population.

Anomalous dominance exists in about 30 per cent of the population. Geschwind and Galaburda suggested that atypical brain structure and function would be found in individuals with developmental stuttering. A variety of studies seem to have supported this notion.

We have proposed a unifying anatomical model based on a motor control theory of speech production (Foundas et al, 2004). According to this model, two main neural circuits work together to coordinate speech production. These circuits or loops include an

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Just What the Doc Ordered

By June Campbell

Pediatricians and related health professionals from throughout the United States and international sites including Israel, the Philippines, Peru, Kuala Lumpur, and the Bahamas were welcomed by and visited with Diane Hill and June Campbell at the American Academy of Pediatrics Annual Conference in San Francisco this October.

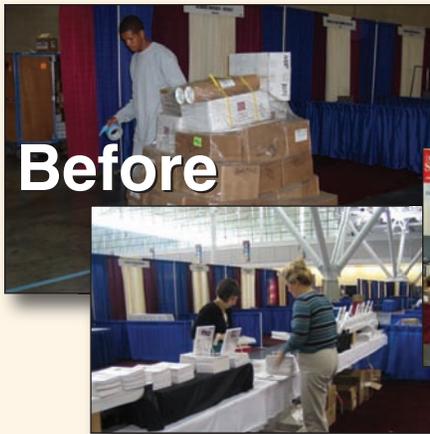
Conversations ranged from gratitude for providing materials for their patients to specific questions regarding children who stutter to consultation regarding children and adult family members to first hand ac-



▲ June Campbell works at a busy booth.

Diane Hill speaks with a pediatrician. ▶

counts of how patients or they themselves have been aided by the Foundation's wide-ranging services. Diane and June always thanked the physicians for their interest and reminded them they are frequently the Foundation's first source of contact for families. A record number of physicians requested to receive SFA's newsletter and information regarding new products. □



Before

◀ 1,000 lbs of books and DVDs



After

Bird's eye view from entrance hall



Crowds gather in Boston for 2007 ASHA convention

This year's American Speech-Language-Hearing Association convention in Boston drew 12,000 speech therapists from all over the world.

And SFA's exhibit booth was in "prime time."

The hottest new products were *Cluttering* with Ken St. Louis and Florence Myers and *Basic Clinical Skills* with Ali Biggart, Jane Bligh, Willie Botterill, Frances Cook, Barry Guitar, Alison Nichols, Peter Ramig, Patricia Zebrowski and June Campbell.

Working hard in the SFA booth were the many volunteers who made the 2007 convention such a success: Steffi Schopick, Katerina Ntourou, Willie Botterill, Frances Cook, Joan Babin, Patrice Carothers, Robin Jones, Lisa Scott, Sheryl Gottwald, Joseph Donaher, Barry Guitar, Mark Shohet, Rita Thurman, Patricia Kraus-Lehrman, Maureen Tardelli, Mark Pellowski, Courtney Byrd, Vivian Sisskin, Adriana DiGrande, Judy Kuster, Kathleen Chase, Jennifer Watson, Charlie Healey, Nancy Ribbler, Julie Gasway, Tricia Zebrowski, John Ellis, Diane Parris, Wendy Wingard-Gay, Anthony Buhr, Rick Arenas, James Panico, and Ryan Pollard. □

Patrice Carothers answers questions about SFA materials



Joe Donaher, Fran Cook, and Sheryl Gottwald greet SLPs



Booth is buzzing - all 30 feet!



Sheryl Gottwald, Patrice Carothers, and Wendy Wingard-Gay help field questions



Willie Botterill, Joe Donaher answer queries about the workbook handouts



Carol Ecke, Jane Fraser, Katerina Ntourou brace themselves for Opening Day rush

Documentary wins media award



Bob Love speaks with Susan Hamilton, his former therapist, during filming of his documentary.

The Stuttering Foundation awarded the documentary, *Find Yourself a Dream: The Bob Love Story*, its 2007 first-place media award. A special \$1,000 cash prize will be presented to **Bob Love** and America's Film Fund to celebrate the Foundation's 60th year.

The Foundation also selected three runner-up winners for successfully enhancing public understanding of this complex speech disorder during the past year. First



runner-up winner will receive \$250, second runner-up winner will get \$100, and third runner-up winner will be awarded \$50.

Karen Rivers, staff writer, South Bend Tribune, South Bend, Ind., for *Stopping the Stutter*.

Second runner-up winner was **Amy Matthew**, features

reporter, The Pueblo Chieftain, Pueblo, Colo., for *Speaking Up*.

Third runner-up was **Eric-Paul Johnson**, The Press-Enterprise, Riverside, Calif., for *Letting His Game Do the Talking*.

The winners were announced on Oct. 22, which is International Stuttering Awareness Day.



Eric-Paul Johnson

"Journalists in a variety of media have done an outstanding job of focusing on the causes and treatment of stuttering over the past year," said Jane Fraser, president of the nonprofit foundation. "We were particularly pleased with the entries during our 16th year of honoring journalists."

America's Film Fund produced the documentary, *Find Yourself a Dream: The Bob Love Story*. Love knows first-hand the experiences of someone who stutters and overcame significant setbacks even after his glory years with the Chicago Bulls.

"Bob is more than a great basketball star and community leader," said Fraser. "He is an outstanding role model for young people everywhere."

One judge said, "It demonstrated that even with all the adversity in his life, Bob Love never gave up. This true story is an inspiration for all."

Information about other famous people who overcame stuttering can be found at www.stutteringhelp.org. □



Kirk and John Tarver during the annual Tin-cup Golf Tournament.

On Track to Help Kids

Kirk and John Tarver and their Memphis-based Shelby Railroad Services, Inc., donated a record \$4,000 on Oct. 4 following the company's annual Tin-Cup Golf Tournament.

The company teamed with the Stuttering Foundation for the sixth year to honor the late Ruth McGuiness Tarver.

"My mother would be so pleased to know of all the help available today to make a difference for both children and adults who stutter" said John. Jane Fraser remarked, "We are so grateful for the dedicated friendship the Tarvers and Shelby Railroad have shown SFA." □

Who's the Mystery Celeb?



A new celebrity will be added to our *Famous People Who Stutter* brochure and poster this spring.

Who do you think it is?

The first person to e-mail us at info@stutteringhelp.org with the correct answer wins a t-shirt. Good luck! □

Aging Gracefully: Self-Therapy Book Turns 30 years old

The book *Self-Therapy for the Stutterer* by Malcolm Fraser continues to help people around the world.

The following e-mail came from a research assistant in Zimbabwe who, like conservationist Alan Rabinowitz, is using his voice to help the animals who have no voice.

"I'm beginning to realize some positives from the stuttering self-therapy book," he wrote. "I've



set myself some assignments, and the fact that I'm conducting workshops for teachers provides the perfect situations for the assignments."

"I'm currently holding workshops every day about a cheetah awareness campaign that involves the use of a schoolbook that integrates subjects in the education curricula with cheetah conservation aspects."

He continues, "My task is to hear their evaluation on the use of the book prior to giving them a refresher course. This task provides me with the perfect opportunity to study my stuttering and attend to it as per the self-therapy recommendations. I find out that I'm even gaining enough confidence to continue talking and expressing what I want to say. I feel this book could soon help me move out of my cocoon." □

Dear SFA: Reader Response



Send letters to SFA, P.O. Box 11749, Memphis, TN 38111-0749 or email info@stutteringhelp.org.



George (second from left) with his friends in Nairobi, Kenya.

We as a family would like to thank you very much for the support you gave toward our son. Our son has really improved his talking after reading the books you gave us. We really thank you for that. The boy turned 12 years old on Oct. 16, and he is in the sixth grade.

Sincerely,

*George and Family
Nairobi, Kenya*

Like a penguin

I believe that I am a penguin beneath my human skin. Penguins have wings but not the ability to fly. I have a mouth but I do not have the luxury to talk without a care. My wings were shortened throughout my youth. The de-evolution of my confidence forced me to stay grounded and not fly with my brothers, my sisters, my cousins.

The tuxedo-wearing birds replace the flying with swimming, as I have replaced my stuttering with a new approach to talking. With this new mode of sustaining, I can now dive into language and speech and survive among the icy waters that I frequently belong to. This can sometimes be a cold place and only if I explore the depths of the ocean that surround it can I find my place in the world, and only when I accept this place can I be admired for my swimming and not my flying. Perhaps those who have the sky and look down can admire me gliding through the waters.

Ben
Edmond, Okla.

Family provides support

Dear SFA:

Is stuttering really that bad? My family members help me to slow down.

Naseer
Ferguson, Mo.

Future doctor works hard

Dear SFA:

My name is Drake and I am 7 years old. I go to school in Holland, Mich. I work hard in school because I want to go to college. I want to be a doctor that

is called a nephrologist. That means a doctor that takes care of kidneys. I stutter when I talk, but I don't stutter when I read out loud.
Drake, 7
Holland, Mich.

Teacher gives ideas

Dear SFA:

I don't like my speech because I stop on words and say them two or three times. My speech teacher told me how I could improve on my speech. I sometimes use my slow rate and sometimes I don't. I forget to use my full breath and slow rate. We use a tape recorder so we can go back over my speech. I know I'll get better.
Cole, 10

Hurricane, W.V.

"I know I am not alone"

Dear SFA:

My name is Jillian. I stutter. People make fun of me, but I try not to let it bother me. Sometimes it does bother me though, so I try and try to stop stuttering.

But I can't. I don't think it is right how people make fun of other people who stutter because we all have problems. Some people might not be good at math or reading. Some problems might be personal like family or self problems. Some may just

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Picture perfect

I feel happy because I learn about stuttering in speech. Stuttering is like Damon Huard throwing the football for the Chiefs and there is a wall that blocks it. I don't think my friends care that I stutter. I do all the things I like to do like race BMX bikes, play football, and skateboard. My teachers are all good and understand stuttering.

Jeff, 8

Lee's Summit, Mo.

Do you have artwork to share? E-mail it to us at info@stutteringhelp.org.



Jeff drew this picture of a football field.

Letters

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speak a different language. But, some like me and many others, stutter, and I do not care what others think because I like myself how I am. I am who I am. Every one has feelings and some people's feelings get hurt easily. My feelings get hurt easily. So if people make fun of me, I just try to stay away from them and sometimes I need someone to talk to so I do not just go around being upset. Instead, I have someone to talk to and I am happy about that. And with the Stuttering Foundation, I can see what other people have to say about stuttering so I know that I am not alone.

Jillian
Lantana, Fla.

Overcoming "sticky" speech

Dear SFA:

I don't like to be "sticky" because I don't like to say words again. Sticky speech is what I call stuttering. I used to be like this: "d-d-dog." My speech teacher is helping me learn what to do. Stuttering isn't so bad.

Katelyn, 9
Hurricane, W.V.

I feel very good...

Dear SFA:

I don't actually feel that angry about my stuttering. I don't know why, but I feel very good about my stuttering. I'll try to stop stuttering but if I don't, it's OK with me.

Andres, 8
Lynwood, Calif.

'I take my time'

When I stutter, I feel sad because I want to feel like I don't want to stutter. Then everyone laughs at me, but when I take my time, I feel a whole lot better.

Ryan
E-mail

Jigger Continues to Spread the Word

Our favorite unofficial ambassador, Leon "Jigger" Sirois (see Summer 2007 SFA Newsletter) continues to tirelessly heighten awareness of the Stuttering Foundation and the resources and help that are available.

Jigger shared with us that, "Stuttering has evolved into a major gift for me. I wouldn't change it now even if I could go back." However, until some years ago, it was a difficult and sometimes distressing burden. He likened the struggle to speak to trying to get "water out of a faucet with the pump turned off! I finally learned, the more 'tricks' you try in order to work around the stuttering, the more undue pressure you put on yourself."

Jigger is particularly passionate about getting SFA resources into public libraries. Currently Jigger has made a donation to the Foundation to supply a complete set of SFA books and DVDs to the Enoch Pratt Free Library in honor of Theodore L. DeWeese, M.D., Professor and Chairman, Department of Radiation Oncology and Molecular Radiation Sciences, Johns Hopkins Hospital, Baltimore, and his staff.

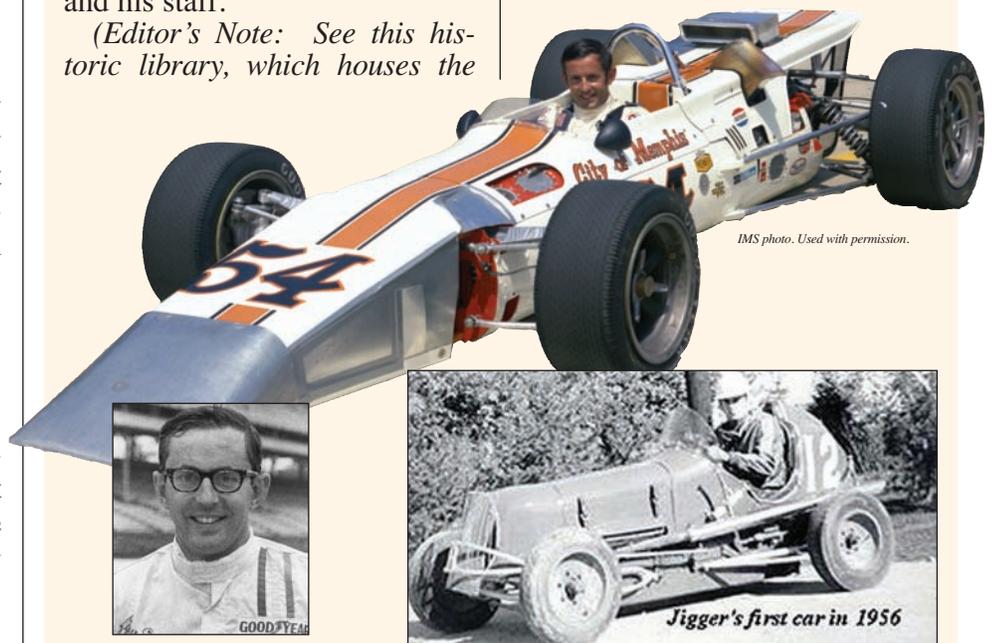
(Editor's Note: See this historic library, which houses the

H.L. Mencken Collection among many other fascinating resources, at www.prattlibrary.org.)

He also recently donated updated resources to the Summers County Public Library in Hinton, West Virginia, and the St. Joseph County Public Library in South Bend, Indiana.

In addition, Jigger is enthusiastic about talking to people in every-day life, wherever he meets them. And Jigger, the most down-to-earth and personable guy you'd ever want to meet, doesn't know any strangers. In a sort of "pay it forward" way, he will give resources to his swimming coach, the clerk at the electrical supply store, fellow Toastmasters, or his physician. And they, in turn, tell others.

Jigger won't take one ounce of credit for being an ambassador. He says, "Stuttering is a complex affliction that makes people uncomfortable sometimes." Perhaps that insight into others, sort of a heightened sense of others' needs, is what drives him, now that he can, to keep talking and helping. "Knowledge is the antithesis of ignorance," Jigger said. Keep talking, friend! □



IMS photo. Used with permission.

Jigger's first car in 1956

MySpace is a place to call home on the Web

With the help of our friend Eva Woolwine as group leader, the Stuttering Foundation launched a MySpace in October.

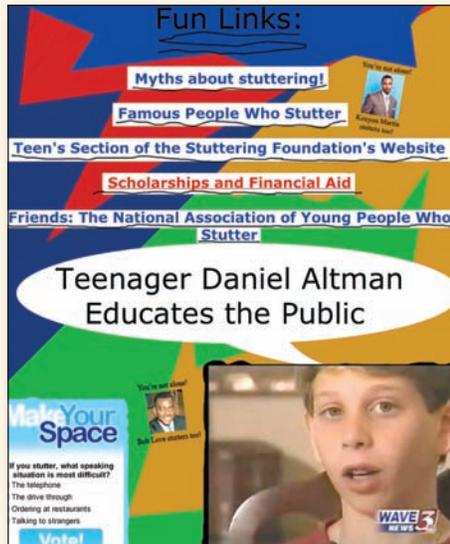
The purpose is to offer a place for teens and young adults who stutter to go to share, get advice, exchange information, and find support. Eva also shares her hope that this venue will offer "...a great place for non-stutterers to learn about this misunderstood challenge."

Eva has been a special friend of the Foundation since the summer of 2005. And special she is.

In addition to attending Northwestern State University in Alva, Okla., pursuing a teaching degree in elementary education, Eva has many other irons in the fire. As a previous contestant (and often winner of) various beauty pageants, she has her sights on the Miss Northwestern title.

A win would send her on to the Miss Oklahoma competition. Eva's talent is magic, and believe it or not, a successful act takes a lot of practice and work-

ing out physically. She is also pledging a sorority and studying hard to maintain top grades. And she still finds time to manage and enjoy the Stuttering Foundation's MySpace page.



MySpace members find support at: <http://groups.myspace.com/stutteringfoundation>

"I was very surprised to see how quickly so many people joined," Eva tells us. "Many people have sent messages telling me that they are thrilled there is a group like this and that they have found support and help." Eva also shared that many people did not know about the Stuttering Foundation and

might not have found its resources without logging in to its MySpace.

"I have updates planned for the page very soon and expect it to continue to grow, offering help, support, and comfort to many people who stutter," Eva says.

As an accomplished and sincerely terrific young lady who just happens to stutter, we know Eva will succeed at anything she puts her heart into achieving. □

Grant

Continued from front page

the University of Illinois. A risk factor chart helps physicians decide when a child may be at risk and when to refer for treatment.

"Whenever I write up an evaluation on a preschooler, I always send along a copy (of this book) with my report to parents in the hopes that it will also reach their pediatrician," says Adriana DiGrande, M.S.

The mailing included an offer for

a free copy of the DVD, *Stuttering and Your Child: Help for Parents*, and the response from physicians and their staff has been overwhelmingly positive.

"Early intervention is the name of the game," said Lisa Scott, Ph.D. of The Florida State University. "Younger pediatricians are eager for more information on this topic, which is rarely covered during their medical school training. This nationwide mailing has filled an important need." □

Web notes

*Comments from
www.stutteringhelp.org*

FL ... I am a SLP currently working with a teenage girl who stutters and would like to give her some information to read about stuttering specific to teenagers. It would help her to know that she is not alone. □

AZ ... My daughter is almost 4 years old and recently started to stutter a great deal. Up until now she stumbled over a few words but nothing like it is now. It's almost hard to understand her. □

NV ... I would like some information to provide to a parent of a male 9 year old who stutters. If you have anything in Spanish, that would be GREAT! Anything you've got should be helpful. □

NE ... My 14 year old son has stuttered since before kindergarten. It has gotten progressively worse. Now he cannot answer the phone without long waits. Ordering in dinners is torture. Not much available for therapy in this area. Any help is greatly appreciated. □

MN ... I am 53 years old and have a severe stuttering problem. I have suffered all my life and have tried speech therapy several times. I would give anything to be able to speak more fluently. □

PA ... My husband stutters and I have now noticed for the past 2 months that my 3 1/2 year old son is stuttering. I am asking for two pamphlets one for my son and one for my husband. □

IL ... My son is 3 years old and began stuttering approx. 4 months ago. He does not stutter all the time, but I feel the amount he stutters has increased and is more intense now. I just wanted some information on things we can do. □

Workshop attracts clinicians from around the world

By Patricia Zebrowski

The 2007 Workshop for Specialists brought together clinicians from Indiana, Kansas, Florida, South Carolina, New Mexico, Missouri, Wisconsin, China, Turkey, Argentina, Thailand, and Finland. As it has since its Iowa debut in 2003, the Workshop continues to have an international flavor, with American and international participants engaging in stimulating cross-cultural discussions about the treatment of stuttering.

This year we were very fortunate to have Fran Cook and Willie Botterill from the Michael Palin Center in London, and Lisa Scott from The Florida State University (Class of 1998) as our guest speakers. In addition, as she did for our 2005 Workshop, 2003 alum Julie Gasway from Cedar Rapids came to talk with us about SpeechEasy and her experiences as a speech-language pathologist and SpeechEasy dispenser.

In between class lectures and discussions we managed to fit in a number of outings, including dinner on pontoon boats on Lake McBride for our last evening together. As always, the Workshop was a highlight for us!



Sally Pidge and Ponjit Jithavech taking a photo of the photographer.



Waiting for the official photo.



Group photo without Parrish Hill.



Front row: Sarah Myers, Dennis Cairns, Parrish Hill, Haiyin Huang. Middle row: Willie Botterill, Deborah Ostman (standing), Jane Fraser, Tricia Zebrowski, Frances Cook. Back row: Mara Luque, Ponjit Jithavech, Sanna Vehka-aho, Lia Raquel Bloj, Ann Webster, Deborah Rhein, Charlotte von Herten, Sally Pidge, Kay Darter, Stacey Simpson, Aksel Fikret Mehmet.



Fran Cook demonstrates problem solving.

Stacey Simpson, Ann Webster, and Sanna Vehka-aho. ▶



▲ Deborah Rhein, Sally Pidge and Fran Cook share a laugh.



Parrish Hill and Fran Cook.

Charlotte von Herten and Sara Myers ▶



◀ Sanna Vehko-aho, Dennis Cairns, Jane Fraser, Charlotte von Herten, and Kay Darter.

Neurological incidents *from page 2*

Of the 32 stuttering adults 41% showed childhood ADHD/ADD scores above the maximum score for the control group. The high scores were related to the following aspects, in descending order: (a) being inattentive, daydreaming; (b) being tense, restless; (c) concentration problems, easily distracted; (d) tendency to be or act irrationally; (e) anxious, worrying; (f) hot- or short-tempered, low boiling point; (g) acting without thinking, impulsive. However, most of the stuttering cases had scores below the level for diagnosis of ADHD, meaning that they showed some traits of ADHD or ADD but should not be regarded as having this diagnosis.

When splitting the stuttering group into two halves, with low versus high scores for childhood attention deficits, it was clear that early neurological incidents were more common in the high-ADHD-group. The following list is a comparison of various background factors in the group with high versus low ADHD/ADD scores (n = 16 in both groups):

- a) Premature birth, average two months: 3 versus 0 persons.
- b) Other birth complications: 4 versus 1 person.
- c) Head injury, resulting in unconsciousness or medical care: 6 versus 1 person.

The high and low ADHD groups also differed with regard to heredity: 13 cases showed "only heredity", i.e., they had at least one stuttering relative but no report of early incidents. Eleven of these 13 cases were found in the low-ADHD/ADD-group. In contrast, 7 cases showed "only neurological incidents", i.e., no report of stuttering relatives but reports of early physical incidents. Six out of these 7 cases were found in the high-ADHD/ADD-group.

The link between traits of ADHD and the background fac-

tors indicates that these traits were not secondary effects of the stuttering, but rather direct neurological effects of the background factors. However, it should be noted that traits of ADHD often are genetically transmitted, and results from Oyler (1994) indicate that such traits in stuttering children may well be familiar. In other words, traits of attention deficits in stuttering children should not be regarded as indications of neurological incidents.

What does "neurological incidents" imply?

If early neurological incidents are a factor behind some cases of stuttering, what does this imply with regard to possible cerebral lesions? It is known that early neurological incidents may result in attention deficit problems, related to the basal ganglia system and the frontal lobe. Some of the incidents discussed above were premature birth, birth complications, and concussion. Both premature birth and birth complications are often related to hypoxia. The effects of hypoxia depend on several factors, such as the degree, duration, if it is intermittent or not, etc. The effects may be subtle, for example affecting the dopamine system and resulting in loss of neurons within the basal ganglia. In fact, the high content of dopamine seems to make basal ganglia neurons especially sensitive to hypoxia. There are indications that males may be more sensitive to early hypoxia than females. Also concussion resulting in unconsciousness might have subtle effects in this region of the brain, because of forces in the upper part of the brain stem. In general, it seems as if lesions related to stuttering typically do not affect intelligence.

Summary

In summary, this study supports previous studies reporting higher frequency of early neurological incidents in a stuttering group without stuttering relatives.

Furthermore, the results indicate

that these early incidents often result in mild traits of attention deficits. This association further strengthens the likelihood that early neurological incidents actually have a causal role in a substantial subgroup of developmental stuttering. The data from the recent study also suggest that genetic factors and early neurological incidents may have an additive effect. If this is the case, one would expect to find a continuum between two hypothetical extreme groups with "pure" genetic stuttering versus "pure" neurological incidents.

The factors discussed above relate to the biological basis for stuttering. The possible influence of the psychosocial environment during upbringing remains to be established.

There is a need for continued studies in this area, especially looking at stuttering children and the risk for persistence of stuttering.

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Editor's Note: Given Dr. Alm's data and speculation, would we expect to see more stuttering in football players, boxers and soccer players (the latter hitting the ball with their head), especially if these sports were begun early in life? And what about all those knocks on the head most of us experienced as children, why aren't more of us stuttering? These and related issues seem like intriguing possibilities requiring further study. □

CELEBRITY CORNER

Former Hockey Player Inspires On and Off Ice

Dave Taylor has been on the SFA's list of "Famous People Who Stutter" for many years, but probably few people know all of the unique accomplishments of this former hockey great who was born on December 4, 1955, in Levack, Ontario.

Taylor worked many summers as a teenager in the nickel mines in his hometown of Levack. He was a good player in his youth and even once beat out Dale McCourt, a future first overall pick in the 1977 NHL draft, for a league scoring title. Taylor was viewed as too light to play in amateur hockey in Canada, so instead he took a scholarship to Clarkson College in Potsdam, New York in 1973. Unlike today, very few college players made it into the National Hockey League. Taylor set all the Clarkson scoring records and in his last year was named both an NCAA All-American and the ECAC player of the year.

After his outstanding college career, Taylor was selected in the fifteenth round as the 210th player overall. In those days, someone selected in the fifteenth round never made it into the NHL. Some say his 150 pounds deemed him an unlikely pro prospect. Taylor proved them wrong as he not only earned a spot on the Kings, but had an outstanding rookie year in 1977-1978 with 22 goals and 21 assists. The next season Taylor would start playing on famed "Triple Crown Line" with perennial superstar Marcel Dionne and top goal scorer Charlie Simmer. This trio tore up the NHL for a few years.

The Kings became more popular in 1988 in the blockbuster trade that brought superstar Wayne Gretzky to the Kings. Taylor was definitely the link between the "old guard" of the Los Angeles Kings to the new "Gretzky era" of the franchise. With Gretzky leading the way, the Kings made the Stanley Cup finals for the first time in franchise history during Taylor's sixteenth season with the

club in 1993.

In 1991, while still an active player, Taylor was honored with two awards by the National Hockey League, the Bill Masterson Memorial Trophy and the King Clancy Memorial Trophy. The Bill Masterson Memorial Trophy is awarded annually to the player who best exemplifies the qualities of perseverance, sportsmanship and dedication to hockey. The King Clancy Memorial Trophy is awarded annually to the player who best exemplifies leadership qualities on and off the ice and who has made

a significant humanitarian contribution in his community.

However, the year 1991 was most compelling in that on February 5 Taylor scored his 1,000 career point, putting him into an elite group of NHL players throughout history.

Dave Taylor has always been open about his stuttering. He has admitted in public that he once had to drop a class in college when he found out that an oral presentation was required. Also, early in his NHL career Taylor when interviewed after games on the radio, Taylor would always fake hyperventilation to guide him to fluency. Taylor credits his triumph over stuttering to his work with famed SLP Vivian Sheehan in Los Angeles.

Taylor's stuttering certainly did not hold him back after his retirement in 1994 as he served from 1997 – 2006 as the Kings' General Manager and Vice President; he was named the NHL Executive of the Year for the 2000-2001 season by the Hockey News. He now is Director of Player Personnel for the Dallas Stars. Taylor continues with his long-time Dave Taylor Golf Classic in Los Angeles, which benefits the Cystic Fibrosis Foundation.

It is almost impossible in this era for someone to exclusively play 17 seasons with the same team in his career in the NHL like Taylor did from 1977-1994. Dave Taylor's number 18 was only the third number retired in Los Angeles Kings history. While videos of Dave Taylor's abilities on the ice, both scoring and fighting, are available on YouTube, young people who stutter will continue to be inspired by Taylor's never-ending triumphs over the odds. His enthusiasm and dedication will never be retired. □



Photo provided by L.A. Kings

Atypical cerebral laterality *from page 3*

outer “linguistic” loop (speech-language areas) and an inner “phonatory” loop (motor regions).

The outer linguistic loop selects and monitors speech sounds; the inner loop coordinates and activates the motor programs of the vocal apparatus (see Alm, 2007 for similar discussion of inner/medial and outer/lateral “loops” thought to be contributory to fluent and/or stuttered speech). Stuttering can be modeled as a momentary instability in these systems when the timing between these two neural circuits is interrupted (see Smith, Johnson, McGillem & Goffman, 2000 for empirical attempts to measure “stability” in speech movements and Smith & Kelly, 1997, for discussion of “(in)stability” as a possible contributor to stuttering).

Muscles that mediate speech functions (tongue, face, larynx) are paired structures. Muscles on the right side receive input from the left cerebral cortex (left hemisphere of the brain) and those on the left side receive input from the right cerebral cortex. The impulses from the right and left hemispheres must be synchronized to assure that speech production is fluent. Orton (1927) originally suggested that this synchronization could only occur if there was a “leading” hemisphere.

The leading hemisphere would then impose its timing patterns over the other hemisphere to produce fluent speech. Stuttering would result if the margin of dominance was reduced.

Theoretically, disruption at any point within these two main neural circuits could induce stuttering by disrupting the flow of information, which in turn would induce asynchronous activation of the paired muscles that mediate speech production.

In this century many studies have examined the anatomical basis of developmental stuttering, including several important studies published this year (see References). At this juncture,

there is strong evidence that adults with persistent developmental stuttering have anomalous anatomy in some speech, language, and motor brain areas. There is controversy about whether one or several functional-anatomical defects may represent a “neural signature” of stuttering. Several “target” areas have been identified, and include the auditory temporal cortex, supplementary motor areas, the cerebellum, and left hemisphere white matter pathways adjacent to the motor speech and mouth area.

Developmental effects are critical to study so that we can learn more about compensatory brain changes...

Distinct features may be more common in men versus women, and right versus left handers who stutter. Furthermore, since most studies have not been conducted in both adults and children, it is uncertain whether some anatomical configurations may be distinct hallmarks of the disease or more reflective of compensatory or developmental changes in brain structure and function associated with experiences with stuttering behavior.

We speculate that there may be “biological subtypes” that differ based on gender, hand preference, genetic factors, and stuttering severity. Developmental effects are critical to study so that we can learn more about compensatory brain changes in contrast to more biological, constitutional, intrinsic or fixed deficits. It may be that some brain anomalies can be modified by specific therapeutic treatments including the use of devices that alter auditory feedback, pharmacological agents that block dopamine uptake, cognitive-behavioral and/or speech

therapy. We need to continue to examine competing theories of the etiological basis of stuttering. We believe that Orton was wise to consider how central defects may contribute to the ontogenesis of stuttering. It remains for modern-day investigators to determine the qualitative as well as the quantitative nature of those defects, how they might change over the lifespan, and whether they exist for most or differ among subgroups of people who stutter.

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Temperament *Continued from front page*

motor profile. In other words, it's the emotional reactivity the child is born with, based on his biological makeup. Personality, on the other hand, is how the child's temperament is shaped by environmental influences. For example, children who are born with more inhibited personalities may be less likely to grow into anxious, introverted adults if raised in a middle-class environment versus those who are raised in low-income environments. In fact, Dr. Kagan emphasized that although temperament is an inherent biological trait, the child's environment has been found to have as much or more influence on how the child develops than does birth temperament. He cautioned against looking solely to genetics as explanation for human behavior. The third factor, mood, is the child's chronic emotional state such as happy, worried, or serious, and is heavily influenced by the child's temperament.

Evidence from twin studies reveals that an individual's likelihood of inheriting a particular temperament is about 50%, but temperament is not the only explanation for our emotional lives. Your temperament may bias you to respond in certain ways, but your emotions and reactions are also heavily influenced by the environment around you.

Temperamental profiles are distinct from one another rather than occurring on a continuum, and can be identified in children as early as five months of age. Also, certain developmental disorders, such as attention-deficit disorder, have their own temperamental profile.

Dr. Kagan and colleagues have studied two groups of children extensively, those who exhibit either low-reactive or high-reactive temperaments. High-reactive children are those who would usually be described as inhibited or shy children. They demonstrate high reactivity by being extremely sensitive to anything new such as new people, rooms,

foods, or experiences, and respond to new stimuli by getting motorically tense. Once the child "understands" the new stimulus, however, they will often then relax. Interestingly, when high-reactive 11- to 15-year-olds complete personality questionnaires, they will describe themselves as worriers, more serious, and less likely to smile or laugh than their peers. These self-reports were confirmed by observations of the researchers who interviewed the children.

In contrast, children who are low-reactive, or uninhibited children, are more social, exuberant, and likely to express positive emotions. Compared to the high-reactive 11-15 year olds, low-reactive children in this age group described themselves as happy, easy-going, and less serious than others their age.

Dr. Kagan went on to describe results from a number of studies investigating whether differences between the groups exist in brain function, heart rate, and on other physiological measures. He emphasized the role of the amygdala, a brain structure that is responsible for the intake of sensory information and then acts like a "fire department" to send communication to about 80% of the brain. Kagan and colleagues' hypothesis is that high-reactive children inherit a neurochemistry that takes very little to fire up the amygdala, which in turn creates tension in their bodies. He also shared his hypothesis that high-reactive temperaments may be noted more frequently than other temperament profiles in children who stutter, those who exhibit selective mutism, and those children who don't make as much progress in therapeutic relationships.

Dr. Kagan concluded his seminar by stating that our current understanding of temperament is equivalent to how well diabetes was understood in 1750; in other words, we have much to learn about this important developmental factor and its role in how children develop and interact with their environments. □



A teacher stands outside a one-room elementary school in the Valley of San Carlos, near Viñales, Cuba.

Cuban Connection

Dr. Frederick Murray is drawn to Cuba. Since 2001, he has made eleven visits! Through his numerous visits to work primarily with the school system's Head of Special Education, he has examined the attitudes toward stuttering and how stuttering is handled.

"It is my impression there is a shift in how Cubans feel about speech handicaps," says Dr. Murray after his recent fall trip. "They are becoming more enlightened and now have centers for help."

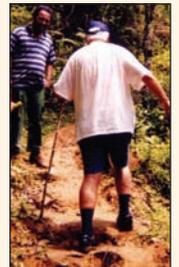
Stuttering Foundation materials are playing an important role in this shift. Dr. Murray makes a point of always taking Foundation brochures, DVDs and books with him. In turn, the materials are handed out to parents.

Dr. Murray reports, "*Self-Therapy for the Stutterer* is of particular interest to them. The SFA resources have helped them to no longer feel like a lost ship at sea." □



▲ *Prof. Murray in an area of Viñales where tobacco is grown.*

Dr. Murray, 79, hiking the Sierra Maestra Mountains in Cuba.





Trouble at Recess

from front page

stutter.”

Because it deals with problems that all children encounter, this book should have universal appeal.

Editor’s Note: This book is a must-have for all kids and is sure to be a bestseller. □

Jamie’s speech-language pathologist Julie Gasway points to a poster of Trouble at Recess at the ASHA convention.



Our best wishes for a happy new year!

The SFA staff (front row, from left): Anne Edwards, Jane Fraser, Pat Hamm, Roberta Brugge. Back row: Susie Hall, Joan Warner, Terri Jones, Lisa Scott, and Lisa Hinton. Not pictured John Bell, Carol Ecke, Don Edwards, Joe Fulcher, Patty Reed, Renee Shepherd, and Scot Squires.

NEWS BRIEFS

▶ The Stuttering Foundation’s Five Day Workshop, *Cognitive Approaches to Parent-Child Interaction Therapy*, will be in Boston, Mass., June 4-8, 2008. With Frances Cook, MSc, Cert. CT (Oxford), Reg UKCP (PCT), Cert MRCSLT (Hons) and Willie Botterill, MSc (Psych. Couns.), Reg UKCP (PCT), Cert MRCSLT of the Michael Palin Centre for Stammering Children in London. Conference coordinator is Diane Parris, M.S., of Boston University. Call 800-992-9392 or visit www.stutteringhelp.org and click on “Speech-language pathologists.” The Stuttering Foundation pays all tuition costs as well as room and board for this exceptional in-depth workshop.

▶ The Stuttering Foundation’s Five Day Mid-Atlantic Workshop, *Treating Children and Adolescents Who Stutter*, will be at Children’s Hospital of Philadelphia, Pa., June 18-22, 2008. With Joseph Donaher, M.A., Children’s Hospital of Philadelphia; Lisa A. Scott, Ph.D., The Florida State University; and Kristin Chmela, M.A., Northwestern University. Call 800-992-9392 or visit www.stutteringhelp.org and click on “Speech-language pathologists.”

The Stuttering Foundation pays all tuition costs as well as room and board for this exceptional in-depth workshop.

▶ *The Eighth Oxford Dysfluency Conference*, co-sponsored by the Stuttering Foundation and the Michael Palin Centre for Stammering Children, will be held at St. Catherine’s College, Oxford, July 3-6, 2008. It provides an ideal opportunity to meet people from all over the world who have an interest in stuttering. Keynote speakers include: Professors Paul Dolan, Imperial College, London, Marc Shell, Harvard University, Patricia Zebrowski, University of Iowa and Dr. Per Alm, Danish Information Centre for Stuttering. Visit www.odc.org.



▶ *European Symposium on Fluency Disorders*, focusing on the nature and treatment of stuttering, will be held at Lessius University College in Antwerp, Belgium, on April 18 and 19, 2008. For a complete listing of keynote speakers, seminar topics and presenters, as well as fees, visit www.lessius.eu/symposiumstuttering. □



Holiday Broadcast

Millions of shoppers nationwide watched a Stuttering Foundation public service ad when it aired several times on QVC during the holiday season. Thank you, QVC! □



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