

Center for Aphasia



and Related Disorders

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# Aphasia News

## Summer is Coming!

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### Have you Heard?

The annual Summer Picnic is May 22nd!

See page 5

Dear Reader,

Welcome to the third edition of *Aphasia News*, our newsletter from the Center for Aphasia and Related Disorders.

This issue of our newsletter contains an article by David Wilkins describing the speech/language syndrome known as Wernicke's aphasia. We hope that you will find this piece interesting and informative. This newsletter also includes an interview with one of our dedicated research participants who continues to lead a very active and productive life while recovering from aphasia.

I also want to take this opportunity to give a big THANK YOU and goodbye to two people at our center who are leaving this summer. Juliana Baldo will be leaving to take a position as a professor at Scripps College in southern California. Juliana has led the stroke support group for 4 years and has served an important role in our research program here. I would also like to thank Ben Russell who will be leaving this summer to attend graduate school at Brown University. Thank you both for all your hard work. We will miss you!

We hope this newsletter finds you well.  
Have a wonderful summer!

Nina F. Dronkers, Ph.D.  
Director, Center for Aphasia and Related Disorders

## *Aphasia Profile: Wernicke's Aphasia*

By David Wilkins, Ph.D.

In the first installment of *Aphasia News*, we described Broca's aphasia and its primary symptoms (i.e., non-fluent speech, trouble producing the grammatical elements of a sentence, and relatively good language comprehension compared to verbal output). In this issue, we continue the series of aphasia profiles with an examination of Wernicke's aphasia.

This form of aphasia was named after Karl Wernicke who first attempted to describe both its symptoms and brain localization in 1874.

Unlike Broca's aphasia, Wernicke's aphasia is considered one of the fluent aphasias. This means that people with Wernicke's aphasia speak spontaneously with few pronunciation problems. While speech rhythm and prosody ("melody") are normal, their rate of speech is normal to fast.

Though their speech may be fluent, it is often difficult to understand what the sentences of people with Wernicke's aphasia mean. This is due to a number of different factors. Sometimes their sentences include words that are so general and non-specific that it's difficult to know what exactly is being talked about. For example, words like 'thing', 'one', 'this', 'is', 'do' and 'get' are used instead of words like 'man', 'kite', 'cookie', 'eat', 'swim' and 'steal'. For instance, while describing the events in a picture one person with Wernicke's aphasia said:

Anyway, this one here, and that, and that's it. This is the getting in here, and that's the getting around here, and that, and that's it.

Another factor which can make the sentences of people with Wernicke's aphasia difficult to understand is the use of "odd" words. These "odd" words can be of three different sorts. First, people with Wernicke's aphasia may mispronounce the word they want to say by swapping sounds or syllables, or

*"... people with Wernicke's aphasia may mispronounce the word they want to say by swapping sounds or syllables"*

substituting one sound for another (for example, saying 'syramos' for 'pyramid'). Second, they sometimes use one word when they apparently intend another word (for example, using 'area' for 'woman' or 'dog' for 'boy'). Third, they might use a word of their own creation (for example, 'tironon' when attempting to name a picture of an hourglass). The following excerpt shows how the use of these "odd" words can affect our understanding. [The "odd" selections are underlined.]

...I can't mention the tarri-poi, a month ago, quite a little, I've done a lot well, I im-pose a lot, while on the other hand, you know what I mean,

I have to run around, look it over, trebbin and all that sort of stuff.

Sentence coherence can also be affected by the fact that people with Wernicke's aphasia may often take a word they've just heard, or just used themselves, and use it again later in inappropriate contexts. Some people with this type of aphasia have words and phrases which they seem to use over and over again, apparently dropped into their sentences at random.

Finally, our ability to understand people with Wernicke's aphasia can be affected by the fact that their sentences are sometimes left uncompleted, and by the fact that the relation between the content of one sentence and the following sentence may be unclear. Interestingly, some people with Wernicke's aphasia are more clear and coherent when they are talking about specific things that happened in their past, before their stroke.

While their spoken (and written) sentences may lack content or coherence, people with Wernicke's

(Wernicke's Aphasia cont'd on page 3)

aphasia frequently use appropriate gestures that help clarify what they are talking about. Further, they will often demonstrate an understanding of what's going

*Aphasia Profile: Wernicke’s Aphasia (cont’d)*

on through non-verbal means, even though their speech cannot be understood.

In addition to the problems that are revealed when they speak, people with Wernicke’s aphasia also have problems with comprehension, even though their hearing is perfectly intact. Not only is there a serious disruption in the ability to comprehend spoken phrases and sentences, but the comprehension of single words is also affected. These problems in comprehension (and production) also extend to the written word. However, many people with Wernicke’s aphasia do somewhat better when things are written down for them.

Related to their comprehension problems, people with Wernicke’s aphasia are typically unaware of their own communication problems and rarely self-correct errors in their speech production. Still, they can detect when their conversational partners are being inattentive or reacting with surprise. So, while they don’t detect their own problems, some Wernicke’s aphasics are sensitive to problems in the conversational interaction.

Despite the fact that Wernicke’s aphasia has been studied for more than 125 years, we still do not understand it completely. Work in our lab has shown that cases of Wernicke’s aphasia that persist more than one year are rare. Some patients who are diagnosed as having Wernicke’s aphasia soon after their stroke go on to improve and then receive a less severe diagnosis of conduction aphasia, anomic aphasia or transcortical sensory aphasia (each of these types of aphasia will be described in later issues of *Aphasia News*).

Although it has been common to associate Wernicke’s aphasia with a site in the brain known as Wernicke’s area, there is, in fact, no brain location that could account for all of the symptoms of this aphasia type. Most commonly, it results from damage to the back (posterior) part of the left hemisphere of the brain, and in our research always involves damage to the temporal lobe and frequently the inferior parietal lobe. The source of each of the

different symptoms described above is likely to have its location (or locations) in specific parts of the brain. Through our research at CARD, we hope to better understand Wernicke’s aphasia and the brain regions involved in this language disorder. Ultimately, we hope our work leads to more accurate prognoses and better rehabilitation techniques for patients with Wernicke’s aphasia.

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If you have more questions about Wernicke’s aphasia, please contact David Wilkins at [wilkins@ebire.org](mailto:wilkins@ebire.org) or at 925-370-4010.

Karl after Wernicke was a neurolo-



Wernicke, whom Wernicke’s is named, German gist and

psychiatrist. He was born in 1848. In 1874, at the age of 26, he published a major work on aphasia entitled “The Aphasia Symptom Complex: A psychological study on an anatomic basis”. Wernicke himself referred to the aphasia that would later bear his name as ‘sensory aphasia’. He died in 1905, and is regarded as one of the founding fathers of neuroscience, neuropsychology and neurolinguistics.

*Face to Face*  
with *Juliana Baldo, Ph.D.*

*I recently sat down with Mr. and Mrs. S. who were nice enough to talk with me about their experiences living with aphasia. Mr. S. has been a research participant at our Center and they have both been extremely enthusiastic in their support of our program.*

JB: What did you do for a living?

Mr. S.: Speech pathology.

Mrs. S.: He was the Director for Speech and Hearing for the Mt. Diablo School District for 35 years.

JB: Did you like your work?

Mr. S.: I was very good.. my real skill being able...to talk with speech therapists.

Mrs. S.: He was the greatest boss they ever had. They made him an administrator early on just after working as a speech therapist.

Mr. S.: Making opportunities for other people to realize that speech therapy is good....I had to be a positive person.

Mrs. S.: He was there right after the German measles outbreak that left a lot of children deaf. He integrated [deaf] kids into school programs. He started a special program for deaf preschoolers at Gregory Gardens in Pleasant Hill, and it's still there.

Mr. S.: We had so many children who were deaf—so many kids with disabilities. So I been to work with speech therapy [and] I made it a very large system. I was able to get the whole speech system to build on deafness. And I was fortunate to [have] the testing with audiology. That was probably one of the best things I ever did with the Mt. Diablo School District.

JB: Where did you two meet?

Mrs. S.: We met in college.

Mr. S.: I can't remember the year. When she was in San Francisco, she was gonna be a school teacher, and I was gonna be a football-baseball-golf coach.

Mrs. S.: He had to take a speech class and volunteer, and it stole his heart.

Mr. S.: Well become interest...I wasn't interested in the football—I met this speech therapist who was teaching deaf kids, and I thought I would enjoy that.

Mrs. S.: We got married in San Francisco in 1952. We'll be married 50 years next month.

JB: And do you have children?

Mrs. S.: We have 8 children. Most of them live around here, and one is France right now.

JB: When did you have your stroke?

Mrs. S.: It's been two years.

JB: How did the stroke occur?

Mrs. S.: He was in the hospital for surgery for reflux dis-

ease, and that went fine. Twenty-four hours later, he wasn't talking right.

JB: Do you remember having trouble talking?

Mr. S.: I couldn't read words. I couldn't say anything. My friend came to see me. The only thing was I wanted to play golf. He [the doctor] told me it's gonna be difficult to get you playing the golf.

Mrs. S.: Golf is very important to him.

JB: How long were you in the hospital?

Mrs. S.: We went back home after a couple days. He was pretty out of it.

Mr. S.: It was very difficult.

JB: Did you get speech therapy?

Mr. S.: Yes, but I can't remember it.

Mrs. S.: We went to Kaiser speech for a time. Then some people he knew from the field told him about a program at Hayward and about your program here.

JB: What do you think helped most?

Mrs. S.: We did exercises at home with pictures and words on cards. I went to Long's and got first grade arithmetic and reading books and used those.

JB: How were things at home?

Mrs. S.: The scariest part is not knowing what they can do—they're not talking but that doesn't mean they can't do other things. At first, we weren't sure.

Mr. S.: I encouraged her to be careful in case I can't walk—I wasn't certain. But then we came here.

Mrs. S.: I realized he couldn't read or write. He couldn't say anything. Words didn't make sense.

Mr. S.: And then this fellow started [here at the Center]—he was always giving me activities. Some day he was telling me "Try to get it. You try."

Mrs. S.: I think all the [mental] stimulation helped.

Mr. S.: It's embarrassing sometimes. It's difficult. Some guys don't understand, and I can't use words enough.

JB: What about your golf game?

Mrs. S.: The first time he got back out, he came home with a big grin on his face. He got a hole-in-one!

JB: What is your handicap?

Mr. S.: [Shows his golf card with a 12.8 handicap.]

JB: Very impressive!

Mrs. S.: He's very competitive—always wants to do better. He always keeps a good attitude. And I think that helps him.

*“The scariest part is not knowing what they can do—they’re not talking but that doesn’t mean they can’t do other things.”*

Food!

Friends!

Singing!

Fun!

# Stroke Support Group Annual Summer Picnic!

*When: Wednesday May 22nd, 12:30-3:00p.m.*

*Where: Nancy Boyd Park in Martinez  
(directions below)*

*What to bring: a dish or drink to share  
if you are able*

*Questions: call Juliana (925) 372-4649*

*Directions to Nancy Boyd Park:*

*From Highway 4, take the Alhambra Ave. exit*

*Go South on Alhambra Ave. for 3/4 mile to Truitt Ave.*

*Go left on Truitt Ave.*

*Make first left on Valley Ave.*

*You will see park in front of you once you hit Church St.*

## *Info Tips*

### **Speaking Out!**

**June 6-8, 2002 in Washington, D.C.**

Speaking Out! is the National Association of Aphasia's third national conference for people with aphasia, families, and healthcare professionals. At the conference, you will learn more about living with aphasia and have the chance to meet other people.

Attendees will also visit their legislators on June 6 to raise awareness about this syndrome that affects more than one million Americans.

To register, contact Dr. Paul Rao, NRH (202) 877-1438 or paul.r.rao@medstar.net

### **Foods to Help Prevent Stroke**

The journal Stroke recently reported that people who consumed higher levels of folate (a B vitamin) had a 20% lower risk of stroke and a 13% lower risk of heart disease. This study was completed by following nearly 10,000 Americans over 20 years.

Foods that are high in folate include citrus fruits, leafy green vegetables, beans, and grain products.

Current health recommendations are to consume 400 micrograms of folate a day.

So eat your beans for health, just like Mom always said!

### **Arsenic Narrows Arteries**

Arsenic is a poisonous metal that can contaminate ground water. Recently, it was reported in the journal Circulation that long-term exposure to drinking water high in arsenic can lead to a slew of health problems. These potential health problems include a narrowing of the carotid arteries, which direct blood through the neck up to the brain.

Check your water system's annual chemical read-out. Arsenic levels should be less than 0.05 milligrams per liter.

### **Stroke Warning Signs**

It is always important to look out for warning signs of stroke. Strokes can happen to anyone, and you may be at greater risk if you've already experienced one. So be vigilant and call 9-1-1 if you or a loved one experiences any of the following warning signs (even if the symptoms go away):

Weakness/paralysis

Numbness

Loss of vision or blurred vision

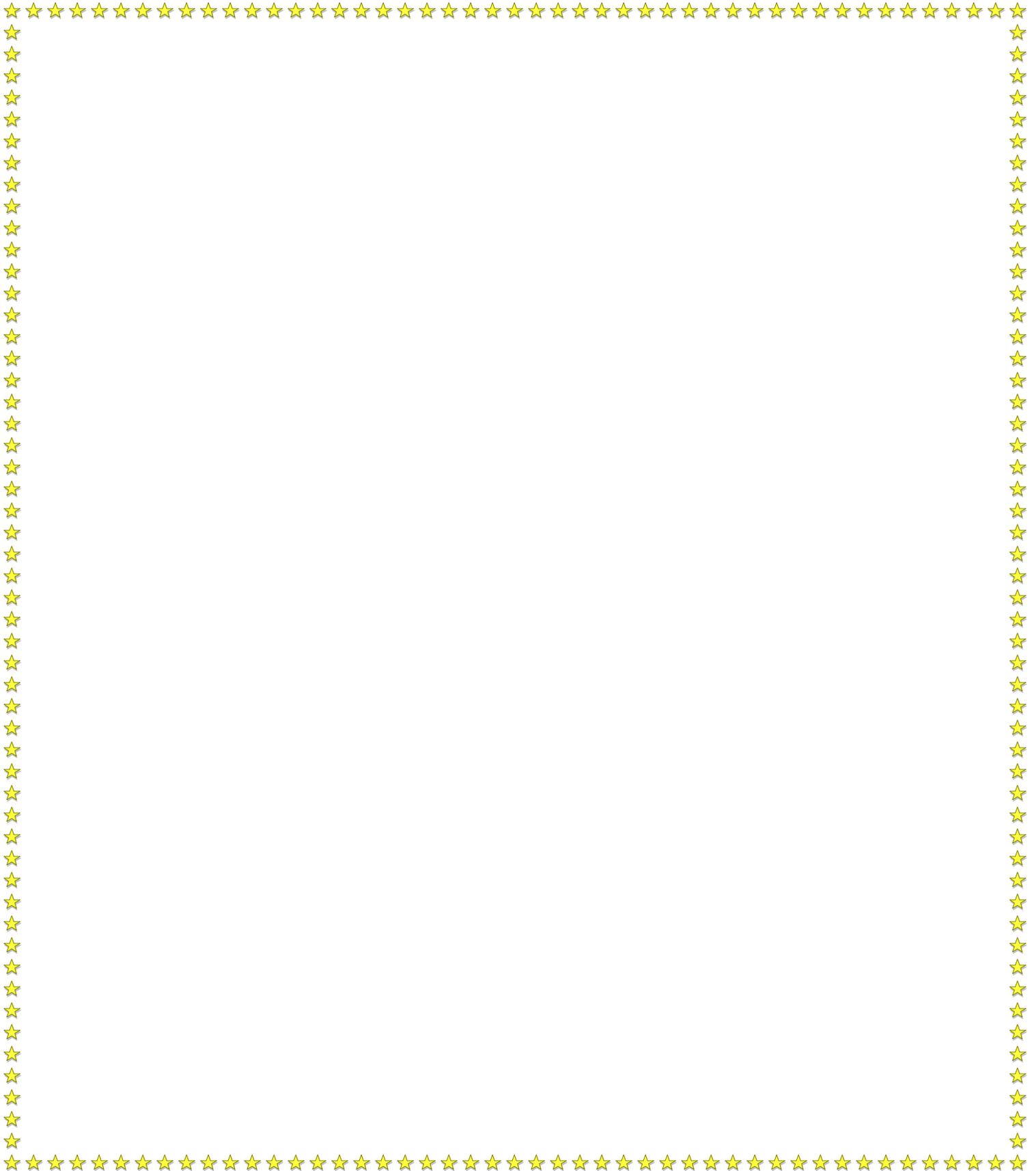
Changes in speech or comprehension

Confusion/disorientation

Loss or decreased balance or coordination

Severe headache

# Game Zone



# Aphasia News

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## *Contributors*

Thanks to:

Nina Dronkers  
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We would also like to thank the members of the  
Stroke Support Group and their families  
&  
The Speech Pathology staff

## Newsletter Information

If you would like to receive this newsletter  
or you have comments/suggestions, e-mail  
Carl at [ludy@ebire.org](mailto:ludy@ebire.org) or write to:

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We welcome your comments and questions!