Language and the brain: evidence from aphasia

Tracy Love, Ph.D.

1:30 pm, Saturday November 16; Chancellor’s Complex 111A, UCSD

Summary. In normal conversation, we tend to take the remarkable act of language comprehension and production for granted. We are seemingly able to carry on conversations rapidly and effortlessly, expressing ourselves to others and understanding what others convey to us. Yet, comprehension and production are exceedingly complex, requiring a multitude of processes that occur “automatically” during normal speech. Often, we are unaware of how complex and specialized language processes are until we or someone we know experiences neural trauma.

In this presentation, we will first explore the different types of stroke-induced language impairments (known as aphasia). Next, we will review the architecture of the language system by examining levels of language processing in individuals with post-stroke aphasia, in comparison to the language abilities of their neurotypical peers. Lastly, suggestions about neural networks underlying language processing impairments will be discussed.

Much of Dr. Love’s research seeks to detail the moment-by-moment processes involved in language comprehension at lexical, structural and discourse levels, with the goal of developing neurologically informed behavioral models of language processing. As such, it is necessary to study the neural organization for real-time language processing across the entire human life span. Consequently, a multiple method approach encompassing brain imaging and behavioral research is best suited to allow for the fusion of information attained from language impaired and unimpaired child and adult populations. By using various methodological approaches and populations simultaneously, she is better able to provide a detailed “life-span” picture of the neural basis for real-time language processing.

Dr. Love is Professor & Director of the School of Speech, Language & Hearing Sciences at San Diego State University (SDSU), as well as the SDSU Director of the joint UCSD-SDSU Doctoral Program in Language and Communicative Disorders. Dr. Love received her Ph.D. in Cognitive Psychology and Neurolinguistics from UCSD in 1998, followed by postdoctoral research at the University of Arizona, Tucson, in Neurogenic and Communication Disorders.
NEW reading group that can still accept 3-4 members.

READING EXPERIENCE
meeting monthly and focusing on a changing series of themes
the first of which is: MEMOIR

10 am, 1st Monday of each month: Memoir = Oct. to Dec.
Pacific Beach branch of San Diego’s Public Library system
4275 Cass Street, Pacific Beach; ample parking.
All book selections are available in the San Diego Public Library system.

Of the three memoirs being compared in the current theme, the first was covered on October 21 and is:
SPEAK, MEMORY by Vladimir Nabokov,
the author’s warm and moving recollections of his large family
and early life in Russia until the Revolution, education in England
and emigre life in Paris and Berlin.

The next discussion, Monday Nov. 18 at 10 a.m., will concern
WHERE I WAS FROM by Joan Didion,
the author’s re-evaluation of everything she thought she knew
about California and her own family’s history in the state since
the mid 19th century.

The third discussion, Monday Dec. 16 at 10 a.m., will examine
THE HARE WITH AMBER EYES by Edmund de Waal,
who reflects upon the lives of his ancestors who assembled and
then guarded for several centuries the valuable collection of netsuke
(small, intricately carved ornaments used with Japanese kimonos)
they passed on to him.

All discussions are open to the public although the series is sponsored
by San Diego Independent Scholars, not by the library.

Gerry Horwitz
STUDY GROUPS
For more information: persons who are not SDIS members but wish to visit or join a study group are requested to contact SDIS via http://sdscholars.org or sandiegoindependentscholars@gmail.com.

COLLOQUY CAFÉ: In-depth exploration of one concept each month. 1:30 pm, third Wednesday of each month.

“Charisma”, the subject of the October 16 colloquy discussion, was defined by the person who suggested it as the quality of drawing others to you, a kind of charm.

There was disagreement with a recent New York Times article stating that one can learn to be charismatic. The general feeling was that it is a quality that cannot be acquired or learned; one either has it or not. However, it was noted, the charismatic individual learns to control it, using it to persuade or influence.

Several examples of well-known charismatic individuals were named, such as Bill Clinton and JFK. Outside the field of politics, Frank Sinatra was termed an ideal example.

An unexpected consideration was raised when one participant mentioned Hitler as an example of a charismatic individual who used the quality for evil. Charisma is usually considered a positive quality; can it be used for negative ends?

Another participant suggested that charisma is necessary for sales, particularly high-end sales, but added that in order to persuade, there must be substance behind the persuasion.

Thus, in the case of a charismatic individual (Hitler) who can convince (or “sell”) his ends to others, yes, charisma can be used for evil. Charisma has an emotional, not rational, appeal.

One person recalled a New Yorker cartoon which pictured an auditorium with a speaker onstage. One audience member turned to another, saying “What is the opposite of charismatic?” As if responding to the cartoon, one of the Colloquy participants said, “Boring is the opposite of charismatic.”

The discussion was not boring, and neither should the next one (Wednesday November 20) be. The subject will be “doubt”.  

Gerry Horwitz
FILM GROUP:
Film viewing and discussion
10:00 am, 1st Wed of each month.

The Film Group will meet Wednesday, November 6 at 10 am to view Woody Allen’s 1987 film Radio Days. This film uses music and memories to depict one New Jersey family’s life in The Golden Age of Radio. Featured music is from the 1930s and 40s and includes music from Cole Porter, Carmen Miranda, Glen Miller and many more. Written, directed and narrated by Allen, and featuring Mia Farrow, there are other appearances, sometimes brief, by Diane Keaton, Jeff Daniels, Danny Aiello, and Diane Wiest.

December’s meeting is Wednesday, December 4 at 10 am to watch 2017 film Chavela. This Mexican-Spanish documentary depicts the life of Chavela Vargas (1919-2012), who was an unconventional but beloved Mexican singer and artist. Her passionate renditions of traditional ranchera music gained her worldwide fame.

Barbara Heckler

READING EXPERIENCE: MEMOIR
Compares several books in the same genre.
(See page 2 for a full description.)
10:00 am, 3rd Mon of month; PB library

Of the series of memoirs comprising its current theme (see page 2), the group has finished the first book, Speak, Memory by V. Nabokov. On Nov. 18 it moves on to compare Speak, Memory with a very different type of memoir, Where I Was From by Joan Didion. New members who have not yet read both books are welcome.

Dorothy Parker

NEUROSCIENCE & RELATED ISSUES
Discussion of pertinent readings
2nd or 3rd Tuesday of each month

The next scheduled meeting of the Neuroscience study group is Nov. 12, 2019 at 1:30 pm, adjourn at 3 pm.

The topic for discussion for this meeting and further into the year will be Artificial Intelligence (AI): the goal, the manifestations, developments, successes and failures.

We will not be using any published book, which will probably be outdated shortly after being published. Instead we will cull from the current literature any reports or descriptions of the status of various types of AI.

Our efforts will focus at first on the history of artificial intelligence. They will emphasize first reports and subsequent manifestations to better understand the changing goals and functions of AI.

One member has contributed an interesting timeline of early interest and later development of AI. It starts with Greek myths of Hephaestus and Pygmalion incorporating intelligent robots (such as Talos) and artificial beings (such as Galatea and Pandora). It continues through the invention of a mechanical calculator by Blaise Pascal in 1642 and later improvements by Gottfried Leibnitz in 1672. Leibnitz invented the binary numeral system and envisioned a universal calculus of human thought, by which arguments could be decided mechanically.

Early worries concerning certain potential applications of AI occur in Johnathan Swift’s Gulliver’s Travels and Mary Shelley’s Frankenstein; or the Modern Prometheus.

Bea Rose
GENERAL RELATIVITY:
*Gravity* by James Hartle
10 am, 2nd or 3rd Wednesday of month
(next meeting = November 13)

The General Relativity Group met at 10:00 am on Oct. 16. All were in attendance.

In this meeting we began developing the mathematical tools (Hartle, Ch. 20) necessary for generating Einstein's Equations. This included a review of Vector Spaces and Dual Spaces, and development of Covariant Differentiation. This led to the general expressions for the usual vector calculus operations of divergence, curl, and Laplacian, for arbitrary coordinate systems and metric spaces.

The next meeting will be on Nov. 13 at 10:00 am at the same venue. At that time we will review some problems in Ch. 20, and move forward into Ch. 21, to discuss curvature.

Alvin Hapern

SUPPER WITH SCHOLARS:
Dinner discussion
OPEN TO BOTH SDIS MEMBERS & NON-MEMBERS

6:00 pm, 1st Thursday of month
At Humphreys Grill in La Jolla near UCSD
3299 Holiday Court, La Jolla, CA.
Meals from the menu are Dutch Treat.
(See www.humphreyslajolla.com)

Because restaurant reservations are needed, please RSVP two days in advance to parkerd1954@gmail.com

Group discussion is based on suggested topics that have particularly interested the attendees in the last month. The subject is selected each meeting by vote of those present. We try to select a question that can be addressed from the differing viewpoints of the various areas of expertise of the participants, which are ordinarily quite diverse, ranging from the humanities to natural sciences to social sciences to various professions.

Dave Parker

Directions to Room 111A, UCSD Chancellor’s Complex

(This the location of SDIS monthly lectures at 1:30 on 3rd Saturday of each month.)

A map is available on [http://sdsscholars.org](http://sdsscholars.org)

Room 111A is the only room in a single-story building (also called 111A) on Lyman Lane between Meyers Drive and Library Walk.
It is directly across the street from the back door to the UCSD Bookstore, which is in the Price Center (Student Union).

Parking currently is free at UCSD on Saturdays, except for sites marked as “Reserved 24/7.” A large parking structure at Gilman Drive and Villa La Jolla Drive is about 5 blocks from room 111A, although closer spots can sometimes be found.
Another option is to park more peripherally and take a campus shuttle bus to Price Center.
Lunch can be obtained from many vendors at the Price Center if the bus gets you there early.