

The Memory Tribune

Newsletter of the Naveh-Benjamin
Memory and Cognitive Aging Laboratory



Department of Psychological Sciences
University of Missouri-Columbia
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McAlester Hall, University of Missouri-Columbia

This newsletter is designed to keep our research volunteers and participants up-to-date on lab news, recent developments, and goals of current research, and to provide information regarding normal aging and memory loss.

Questions may be directed to:

The Memory and Cognitive Aging Laboratory
(573) 882-8123 or e-mail navehlab@missouri.edu
website: <http://macal.missouri.edu>



Welcome to the Memory and Cognitive Aging Laboratory Newsletter!



off the mark by Mark Parisi
www.offthemark.com



Memory is a way of holding onto the things you love, the things you are, the things you never want to lose.

--From the television show *The Wonder Years*

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A Message from Dr. Naveh-Benjamin

Greetings, veteran volunteers and newcomers to our pool of participants!

We hope that you have all had an enjoyable year. Our Memory and Cognitive Aging Laboratory has had a very fruitful year, conducting research on how learning and memory abilities change with normal aging. We have been very active this past year, and this newsletter will bring you up to date on new developments in our lab that have taken place since the previous newsletter.

Inside the newsletter, you will learn about an interesting new research project that we are pursuing, some tips on how to exercise your brain, and information about our lab's current and new members. Also enclosed are a list of foods that provide for a good and healthy diet, as well as a list of local resources in Columbia for older adults.

You will also find an invitation for a free lecture sponsored by our laboratory that will be given on June 30th at the Lenoir Retirement Community by physician and author Dr. Jerry L. Old, on the secrets of successful aging. You are all invited!

In addition, we have included information for those of you who might be interested in joining our pool of participants. Our success in achieving a better understanding of age-related memory changes depends to a large degree on your help and cooperation. Thanks to your participation, we are also able to assess the benefits of different strategies to help people improve their memory performance. Your willingness to visit our laboratory and to participate in our studies is crucial to our research and is greatly appreciated. We sincerely hope that you continue to help us in the future! Meanwhile, if you know anyone who is interested in joining our participant pool, we will appreciate it if you provide them with our contact information that is found in this newsletter. Thank you in advance for your generous cooperation!

Finally, we take into serious consideration all your helpful comments, suggestions, and questions about visits to our lab. Please do not hesitate to provide us with as much feedback of all sorts as possible. We remain committed to making these visits as beneficial and enjoyable for you as possible.

We wish you an enjoyable and healthy summer, and hope to see you in our lab soon!

Thank you for reading!

Naveh Benj

People in our Laboratory



Angela Kilb, MA

Laboratory
Coordinator;
Graduate
Research
Assistant

Angela Kilb - I have been a graduate student in the Cognition & Neuroscience department here in Columbia for several years. I am interested in studying memory, and I hope to get a better idea of why memory declines with age so that we can find a better way of preventing it in the future.



**Susan Old,
MA**

Graduate
Research
Assistant

Susan Old - I have enjoyed working in the Memory and Cognitive Aging Laboratory for the past three years. I am from Savannah, Missouri, and graduated from Missouri Western State College. My research interests include memory and learning, as well as the associated physical attributes.



**Yoko Hara,
MA**

Graduate
Research
Assistant

Yoko Hara - I am a graduate student from Japan and I had lived in Hawaii, California, and Pennsylvania before moving to Columbia. My research interests are human memory, learning and attention. I look forward to getting to know people in Columbia and hope to contribute to the community through my research and interactions with them.



**Amanda
Gilchrist, BA**

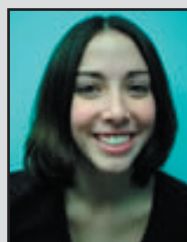
Graduate
Research
Assistant

Amanda Gilchrist - I moved here from Florida and just completed my first year of graduate school. I am interested in working memory across the lifespan. In addition to working with Dr. Naveh-Benjamin, I am also working with Dr. Nelson Cowan to study children's memories.



**Allison
Federici**

Undergraduate
Research
Assistant



**Amy
Ireland**

Undergraduate
Research
Assistant



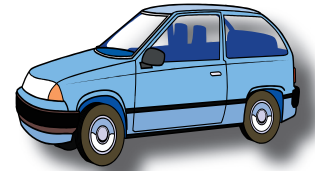
**Justin
Yancey**

Undergraduate
Research
Assistant

Current Research



Memory for Vignettes



These days, cellular phones are everywhere. People use them while walking, dining at a restaurant, and even while driving.

Talking on a cellular phone while performing an unrelated activity is an example of divided attention: one part of your attention focuses on the activity at hand, while another part simultaneously focuses on the phone conversation.

One study at our Memory and Cognitive Aging Laboratory explores the effects of divided attention on memory for both younger and older adults. Suppose, for example, that you are trying to remember a friend's address. Our main question is, when would you correctly remember the address: when your full attention was devoted to the recollection attempt, or when your recollection was interrupted by another simultaneous activity, such as talking on a cellular phone? In order to investigate this question, our current study explores what happens when participants try to remember information while performing another task at the same time.

In this study, participants begin by listening to a series of short vignettes that are similar to conversations they may regularly have on a cellular phone. They are then asked to devote their full, undivided attention to repeating these vignettes verbally, using as much of the original wording as possible. Later, participants are asked to repeat a new set of vignettes, but now while dividing their attention to perform *another* task at the same time, which involves following a dot on a computer screen.

After the study is completed, we compare participants' performance on the full-attention task to their performance on the divided-attention task, yielding a measurement of the effect of the simultaneous task (following the dot) on their ability to remember information. This is comparable to the same distractions that occur when talking on a cellular phone while driving a car. Our findings suggest that when people are trying to remember information, they don't do as well if they are distracted by another task at the same time, and we are interested in finding out whether the amount of distraction changes with age. To learn more

about divided attention, please sign up to participate in one of our studies! We look forward to meeting you.





EXERCISING YOUR BRAIN



Ronald Kotulak writes in the *Chicago Tribune* that “Brainteasers may be one of the most potent weapons against Alzheimer’s.” This is because “mental gymnastics” seem to create connections among brain cells. When memory begins to decline by a person’s 30s and 40s, someone with high numbers of connections within the brain can afford to lose more of them before memory loss occurs, compared to someone with fewer connections. Thus, certain forms of mental activity can delay the onset of Alzheimer’s disease, lessen the effects of the disease, and possibly prevent the disease altogether.

Sources:

Kotulak, R. (2004, June 7). Seeking origins of Alzheimer’s: Disease can have roots early in life, research suggests. *Chicago Tribune*, p. C1.

Verghese, J., Lipton, R. B., Katz, M.J., Hall, C.B., Derby, C.A., Kuslansky, G., et al. (2003). Leisure activities and the risk of dementia in the elderly. *New England Journal of Medicine*, 348, 2508-2516.

Here are some puzzles to get you started. (Answers are on the next page.)



CRYPTO-FAMILIES

A Crypto-Family is a list of related words in code. Each letter below stands for a different letter of the alphabet. When you have identified a word relating to “jobs”, use the known letters to help decode the other words in the Family. First words for each category are listed on the bottom of page 10. (This puzzle is taken from PennyPress’s Variety Puzzles.)

JOBS

B Z E T K P D	S D H R M F P H F
T P H R S L M H	H S D B P L F P D
H Z P D I	T S V W L
P C M F W D	J P Z C P D
K S D K P D	F D E H I P D

Sudoku

Rules of Sudoku:

1. Place a number (1 - 9) in each blank cell.
2. Each row (nine lines from left to right), column (also nine lines from top to bottom) and 3x3 block bounded by a bold line (nine blocks) should contain each number from 1 through 9.

from: <http://www.puzzle.jp/> by: mimic

4	5							6
		3			1			7
				2	3			
				4		2	5	
		9	3		2	1		
	8	1		7				
			5	8				
9			7			8		
7							6	4

LATERAL THINKING PUZZLE

Instructions: The following puzzle, as presented, does not contain sufficient information for the solver to uncover the solution. In order to solve the problem, there must be a dialogue between a solver and a quizmaster, who knows the solution. The solver asks questions, which the quizmaster answers with one of only three possible answers--yes, no, or irrelevant.

Problem: When a woman answers the door, she is always wearing her hat and coat. Why?



A SPECIAL ANNOUNCEMENT...

The Memory and Cognitive Aging Laboratory is pleased to announce a free lecture by physician, author, and humorist Dr. Jerry L. Old, entitled:

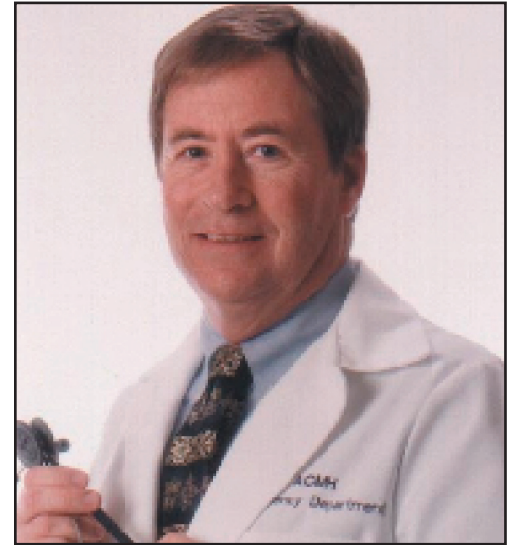
Vintage People: The Secrets of Successful Aging

When: Friday, June 30, at 1:00 pm (light refreshments will be served at 2:00)

Where: Community Center at Lenoir Retirement Community; 3710 S. Lenoir Street (near AC exit from Hwy 63)

Please join us and learn how to become a “vintage person”!

For more information, contact us at 882-8123 or e-mail navehlab@missouri.edu



Dr. Jerry L. Old

ANSWERS to “Brain Exercises” on page 6

Sudoku

9	6	5	7	1	4	8	3	2
3	2	4	5	8	6	7	9	1
2	8	1	9	7	5	6	4	3
5	4	9	3	6	2	1	7	8
6	3	7	1	4	8	2	5	9
1	7	6	4	2	3	4	8	5
8	9	3	6	5	1	9	2	7
4	5	2	8	9	7	3	1	6

Crypto-Families

JOB: Plumber, Mechanic, Clerk, Editor, Barber, Architect, Carpenter, Mason, Welder, Truckee

Lateral Thinking Puzzle

The woman often receives unwanted guests. Therefore, she likes to pretend that she is on her way out, so that the guests do not stay long. If the guest is someone she wants to invite in, she says that she just came in the door herself.

Food for Thought: Ten Foods to Preserve A Healthy Diet

1. **Blueberries** - Wild blueberries are filled with antioxidants, and studies suggest that a diet rich in blueberries improves memory.



2. **Dark Leafy Greens** - These foods contain folate and vitamins B6 and B12, which break down a chemical called homocysteine. Although homocysteine is naturally produced by the body, too much of it has been linked to dementia.

3. **Salmon, Herring, and Sardines** - These fish are full of omega-3 fatty acids. Studies have suggested that incorporating them into the diet may aid in the prevention of Alzheimer's Disease.



4. **Spinach** - Spinach is full of antioxidants and has been shown to slow down age-related problems in the central nervous system.



5. **Grape Juice** - Grape juice appears to improve short-term memory, and contains extraordinarily high levels of antioxidants.

6. **Whole Grains & Brown Rice** - Brown rice is full of vitamins and magnesium, which are believed to help in cognitive functioning. Whole grains, like dark leafy greens (see number 2 above) contain vitamin B6.



7. **Hot Cocoa** - The antioxidant power in hot cocoa may help protect the brain against Alzheimer's disease.

8. **Almonds & Walnuts** - Nuts have been shown to lower blood cholesterol levels, and appear to lower the risk of coronary heart disease.



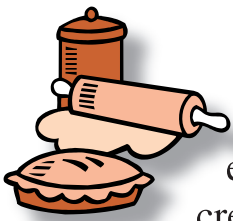
9. **Olive Oil** - The best choice is the extra virgin kind. The antioxidants in it reduce blood pressure and cholesterol levels.

10. **Garlic** - Raw, crushed garlic is the best choice. Its antioxidants fight off some negative effects of aging, and it is strong in antibacterial and antiviral components.



Source:

www.psychologytoday.com



A Recipe for Success . . .



As mentioned on the previous page, blueberries provide an excellent dietary source of antioxidants. The following is a recipe created by Eleanor Goodge, and reported in the Columbia Missourian. It is a lightened version of blueberry pie, using Splenda instead of sugar. You can indulge your sweet tooth and gain antioxidants at the same time!



BLUEBERRY PIE

3 cups blueberries (fresh or frozen that have been thawed)
1/2 to 3/4 cups of Splenda
1 tablespoon flour
1/4 teaspoon cinnamon
1 or 2 tablespoons butter or margarine
2 tablespoons lemon juice

Mix Splenda, flour, and cinnamon. Add these to the blueberries, mixing well. Place in an uncooked piecrust.

Dot with butter or margarine and sprinkle with lemon juice. Add a top crust and bake at 450 degrees for 40 minutes until crust is lightly browned.

LOW FAT PIE CRUST

2 cups flour
1 teaspoon salt
1/2 cup salad oil (can use light olive oil)
1/4 cup milk

Mix flour and salt. In a separate bowl, mix salad oil and milk. Add to flour mixture and stir with a fork. Make into a ball and divide in half. Roll out between sheets of waxed

Local Resources on Aging:

- Alzheimer's Association (573) 443-8665
- Boone County Council on Aging (573) 443-1111 / 1-800-829-2114
- Central Missouri Area Agency on Aging (CMAAA) (573) 443-5823 / 1-800-369-5211
- Older American Klub (573) 874-7475
- Retired and Senior Volunteer Program (RSVP) (573) 442-7238 / 1-800-829-2114

Information for Interested Participants

Please contact us if you know someone who might be interested in participating in one of our studies!



Memory and Cognitive Aging Laboratory
9 McAlester Hall
Columbia, Missouri 65201
(573) 882-8123 or navehlab@missouri.edu

FREE PARKING!

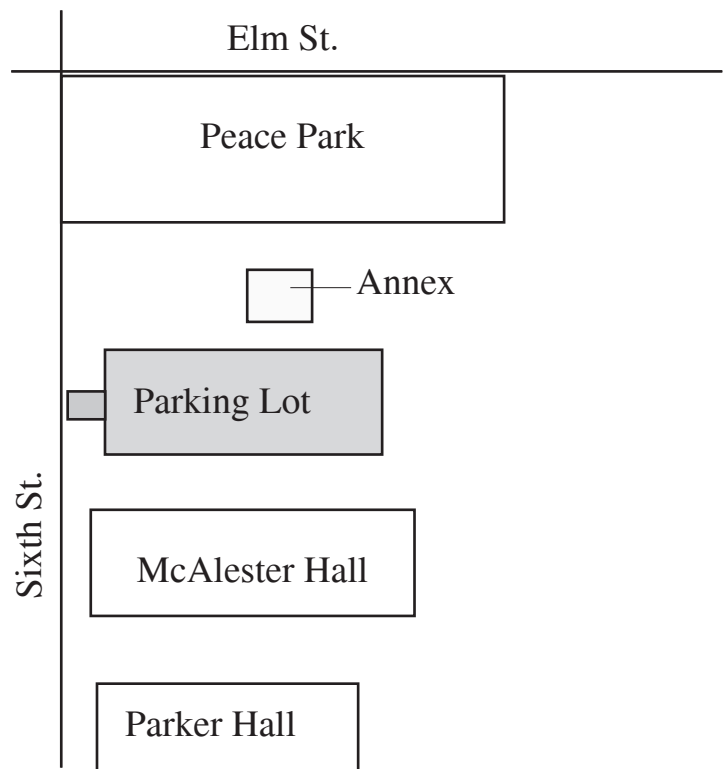
Directions for First Time Participants

From Stadium:

- Head north on Maryland Ave. until reaching Conley Ave.
- Turn left onto Conley Ave.
- Sixth St. will be the first street on the right.
- Heading north on Sixth St., McAlester Hall will be the last building on the right before reaching Peace Park
- The parking lot is located just behind McAlester Hall.

From Broadway:

- Head south on Sixth Street
- Just past the intersection of Sixth St. and Elm St. will be McAlester Hall on the left.
- The entrance to the parking lot is just past Peace Park & immediately before McAlester Hall



Crypto-Family first word: Jobs--plumber

