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!

Table of Contents

Page 2
A message from Dr. Naveh-Benjamin

Page 3-4
People in our Laboratory

Page 5
Current Research

Page 6-8
Brain Exercises

Pages 9-10
Improving Memory
Treating Memory Loss

Page 11
Suggested Reading

Page 12
Information for Interested Participants and Directions for First-time Participants

“Grandpa’s at that wonderful age where he can’t remember if he already gave me my allowance.”
Greetings, veteran volunteers, and newcomers to our pool of participants!

We hope that you have all had an enjoyable summer. Our Memory and Cognitive Aging Laboratory conducts research on how memory changes with normal aging. Our lab has been very active during the past year, and this newsletter will bring you up to date on what is new since we sent you our previous newsletter.

Inside the newsletter you’ll find information about the current members of the lab, new research projects that we are pursuing, some tips on how to to preserve your mental skills, some mental exercises, and suggested readings that may spark your interest. In addition, we’ve included information for those who might be interested in joining our pool of participants. Our success in achieving our goals of a better understanding of the causes of age-related memory changes and the developing of strategies that people can use in order to improve their memory performance depends to a large degree on your help and cooperation. Your willingness to visit our laboratory and to participate in our studies is crucial to our research and is therefore greatly appreciated. We hope that you will continue to help us in the future! In addition, if you know anyone who is interested in joining our participants’ pool, please provide them with our contact information that can be found in this newsletter.

We greatly appreciate your comments about your visits to our lab, as we would like to make these visits as enjoyable as possible.

We wish you an enjoyable and healthy autumn, and hope to see you in our lab soon.

Dr. Moshe Naveh-Benjamin
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.

I earned my Master’s Degree from MU in 2006 and am currently beginning dissertation work. I am particularly interested in age differences in the learning of names and faces.

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.

I’m currently working with both Moshe and Nelson Cowan to study lifespan changes in working memory, especially in terms of how people group items together. I’ve been at the university for three years, and I originally come from Central Florida.

I am a first year graduate student in the Cognition and Neuroscience department here at Mizzou. While my hometown is in Albuquerque, New Mexico, I graduated with a B.S. from the University of Oklahoma (Go Sooners!). My research interests include human memory.
Praggyan Mohanty, MA
Graduate Student
pmvd3@mizzou.edu

I am a fourth year doctoral student in the department of Marketing. My research interests lie in the domain of consumer information processing, advertising, and persuasion. I am currently studying incongruity effects in the context of visual metaphors and effect of cognitive deficit in the elderly consumer on creation of brand associations. I have an undergraduate degree in Economics from Utkal University, India and an MBA from Institute for Technology and Management, India.

Tina Miyake, Ph.D.
Post-Graduate Fellow
miyaket@missouri.edu

I’m originally from Nampa, Idaho. I completed my bachelor’s and master’s degrees at Idaho State University, and I completed my Ph.D. under the supervision of Dr. Michael J. Kane at the University of North Carolina at Greensboro.

Michael Boeving
Undergraduate Research Assistant

Austin Fitzgerald
Undergraduate Research Assistant

Adam Horwitz
Undergraduate Research Assistant

Kelli King
Undergraduate Research Assistant

Thivia Mogan
Undergraduate Research Assistant

Heather Oolman
Undergraduate Research Assistant

Jenna Thomas
Undergraduate Research Assistant
Who Did What?

Have you ever had difficulty remembering which of your friends made a particular comment or which member of your family gave you a certain gift? A recent study at The Memory and Cognitive Aging Laboratory investigated this common phenomenon. In the experiment, participants studied brief video clips, each showing a different person performing a different action. Participants’ memory for the individual actions, the individual people, and which person did which action, was then tested. We found that older adults recognized the individual actions and people about as well as did younger adults. However, older adults were disadvantaged at remembering who did which action. Our findings are relevant to eyewitness identification; a witness may finger the wrong person in a crime simply because the witness has seen that person before.

Perceptual Degradation

If you’ve noticed a decline in your sense of vision or hearing, you are not alone; this is a common occurrence as people grow older. We are investigating how age-related vision and hearing loss affects memory tasks. Although one obvious possibility is that you will not remember things that you did not see or hear in the first place, another more interesting possibility is that someone with poorer vision will expend so much effort in viewing the information that they don’t have enough mental energy left to remember the information. We are currently collecting data supporting this second possibility. So if you are straining to read something even with your glasses you may want to check out the need for a new prescription.
Ways to Exercise Your Brain

Riddles

QUESTION: I am weightless, but you can see me. Put me in a bucket, and I’ll make it lighter. What am I?

QUESTION: I run over fields and woods all day. Under the bed at night I sit not alone. My tongue hangs out, up and to the rear, waiting to be filled in the morning. What am I?

QUESTION: The man who invented it doesn’t want it. The man who bought it doesn’t need it. The man who needs it doesn’t know it. What is it?

QUESTION: What is the easiest way to throw a ball, and have it stop, and completely reverse direction after traveling a short distance?

QUESTION: If three cats catch three mice in three minutes, how many cats would be needed to catch 100 mice in 100 minutes?

A simple brain exercise you can do on the computer

This is an exercise that potentially can strengthen neural connections and even create new ones.
Switch the hand you are using to control the computer mouse. Use the hand you normally do NOT use.
What do you notice?
Is it harder to be precise and accurate with your motions?
Do you feel like you did when you were first learning to tie your shoelaces?
If you are feeling uncomfortable and awkward don’t worry, your brain is learning a new skill.
Try other neural building and strengthening exercises with everyday movements.
Use your opposite hand to brush your teeth, dial the phone or operate the TV remote.
Find and circle all of the words, names, songs, and movies that have to do with Elvis Presley.
The remaining letters spell a line from an Elvis song.

U O Y N O K C U T S C L A M B A K E Y O
G N I K E H T R O C K A B I L L Y U C B
D N I A R Y K C U T N E K A S N D O A L
O S N Y E G O D D N U O H D T H B S L U
N A R E T U R N T O S E N D E R U D E E
T G U I S V G I N G T I B J G A R R T H
B E O R I E U Y A T M U A L O L N O O A
E V Y A S R C R S A I P Y O L I C H W
C S T M E N R O U A L O R E D S N E K A
R A O A L O F O L H T E K S L H G R A I
U L N S T N I S O O D I U O U O L N E I
E A S I T C E U D N N R N H C O O U R Y
L I H P L E A T C E N U L F C U E S T P
E V S B R L E R N I M O F P H P M I R A
P U I O E M D G O Y Y M R A S U H A H
S G C C E O E H O A A R O N R R B P E L
O K A V L R T T S Y D A L G M L K M H R
G R O E I N T H E G H E T T O U E E S I
G L U E D E S R O U S T A B O U T M R G
D R A F T E D A L L I C S I R P H O E S

BURNING LOVE
CLAMBAKE
COLONEL PARKER
DON’T BE CRUEL
DRAFTED
G.I. BLUES
GIRL HAPPY
GLADYS
GREACELAND
GYRATING
HEARTBREAK HOTEL
HOUND DOG
IN THE Ghetto
JAILHOUSE ROCK
KENTUCKY RAIN

KING CREOLE
LISA MARIE
MEMPHIS
ONE NIGHT
PRISCILLA
RCA
RETURN TO SENDER
ROCKABILLY
ROUSTABOUT
SHE’S NOT YOU
SUSPICIOUS MINDS
THE KING
TOO MUCH
TUPELO
U.S. ARMY

VERNON
VIVA LAS VEGAS

Answers to these and all the other puzzles can be found at our website:
http://macal.missouri.edu
Mazes

Sudoku

Visit our website: macal.missouri.edu for answers to the puzzles!
Ways to Improve Memory

Age-related memory loss is normal, and there is, unfortunately, no miracle cure. You can, however, use specific techniques to sharpen existing memory and make new information more easily retainable. Try making new information more meaningful and relevant to you by personalizing it somehow. By doing this, you’ll find it easier to recall things.

In addition, there are certain organizational habits that you can perform to better prepare your brain for new information. Performing these behaviors reduces anxiety and pressure, freeing you from your stress and allowing you to focus more readily. The more organized you are, the better you’ll be able to concentrate on what you need to remember. Try the following techniques:

- **Belongings** — Always keep important, frequently used belongings (keys, glasses, handbag, etc.) in the same place.

- **Meetings and appointments** — Use a calendar or electronic organizer to keep appointments and other important dates. You should have this with you all the time for easy reference.

- **Daily planner** — As with your calendar, keep lists of things that you have to do each day in a daily planner. Be sure to write down the names of people to call, any bills you need to pay and any errands you need to run.

- **Names and phone numbers** — Keep your address book updated and easily accessible.

More Tips to Improve Memory

Get organized: You are more likely to remember things if you are organized. For instance, if you are tidy, you are more likely to know where you have put things. If you have a regular routine you are more likely to remember what you are supposed to be doing. This doesn’t mean that you have to be obsessed with tidiness and routine, but it does mean that you may have to take a bit more time over it to organize yourself.

Keep fit: It’s easier to have a healthy mind if you have a healthy body. This means getting regular exercise, eating and drinking moderately, and not smoking. If your eyesight is poor or you are a bit deaf, make sure you have the proper spectacles or hearing aids. This will help you to be aware of what is happening and will help you to hear what other people are saying. It will certainly help you to keep up to date. Try not to use sleeping tablets and tranquillizers - you’ll be more alert.

Regular health checks: Many doctors do regular health checks of their elderly patients every year. These can help you to sort out any problems with your physical health, but can also help to diagnose Alzheimer’s early. There are some new treatments which may hold back the disease for a year or so, and they’re most likely to be effective if they are used early. If you are depressed, your doctor will be able to start you on antidepressants. Your memory will often improve as your depression lifts.
Use your mind: If you don’t use your body, it weakens. If you stay in bed for weeks, your leg muscles shrink and you are likely to find it difficult to walk. It may be that if you don’t use your mind, a similar thing may happen. We know that intelligent, well-educated people seem to experience fewer memory problems as they get older. This may be because they have a better memory in the first place and so take longer to develop problems. It may also be that, being in the habit of using their minds to study, learn and solve problems, they don’t ‘switch off’ after retirement. So hobbies such as quizzes, crosswords, reading, learning passages or poems, and card games, may help to offset the effects of ageing. Endless snoozing, putting your feet up too much, and being a ‘couch-potato’ may make them worse.

External aids: Most of us check what day it is by looking at a calendar or the day’s newspaper. We regularly use alarms to wake us, but can also use them to remind you of things to do. We can even use the traditional method of tying a knot in our handkerchief. Leave things you will need to take out by the front door or where you are unlikely to miss them. Put your pills by your toothbrush, this can remind you to take them when you clean your teeth. Pills are now often packaged so that you can check whether you’ve taken today’s or not.

Nobody’s perfect: Most people who think their memory is going have a normal memory that isn’t perfect. Younger people will explain their memory lapses saying that they are hung over, in love, too busy or ‘scatty’ - they won’t think they have Alzheimer’s disease. If this happens to older people, they tend to think they have dementia, even when they haven’t.

Treating Memory Loss

The treatment of memory loss depends on its cause. Sometimes it is as simple as treating the underlying illness that is causing it. For example, treating depression, thyroid disease or a sleep disorder should resolve any associated memory loss.

At present, there is no drug that can prevent age-related memory loss or reverse it. Nor is there a pill for people who want to sharpen their memories, although experts believe that one day this might be possible. However, self-help techniques and practical exercises, as described above, can be effective.

From Harvard Medical Schools Consumer Health Information.
Suggested Reading

**Improving Your Memory:** How to Remember What You’re Starting to Forget  
*Janet Fogler, Lynn Stern*  
**Hardcover** - Only From B&N Books, September 2001

**Memory Book**  
*Harry Lorayne, Jerry Lucas*  
**Other Format** - REISSUE, July 1996

**Your Memory:** How It Works and how to Improve It  
*Kenneth L. Higbee*  
**Paperback** - REVISED, March 2001

**Total Memory Workout:** 8 Easy Steps to Maximum Memory Fitness  
*Cynthia R. Green*  
**Paperback**, January 2001

**Keep Your Brain Alive:** 83 Neurobic Exercises  
*Lawrence C. Katz, Manning Rubin*  
**Paperback**, April 1999

**Brain Longevity:** The Breakthrough Medical Program That Improves Your Mind and Memory  
*Dharma S. Khalsa, Cameron Stauth*  
**Other Format**, April 1999

**Memory Bible:** An Innovative Strategy for Keeping Your Brain Young  
*Gary Small*  
**Hardcover** - 1ST, June 2002

**Saving Your Brain:** The Revolutionary Plan to Boost Brain Power, Improve Memory, and Protect Yourself against Aging and Alzheimer’s  
*Jeff Victoroff, Jeffrey Ivan Victoroff*  
**Hardcover**, June 2002

**The Memory Workbook:** Breakthrough Techniques to Exercise Your Brain and Improve Your Memory  
*Douglas J. Mason, Michael Lee Kohn*  
**Paperback**, October 2001

**Don’t Forget!:** Easy Exercises for a Better Memory  
*Danielle C. Lapp*  
**Paperback** - Bargain, March 1995
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, MO 65201
(573) 882-8123 or navehlab@missouri.edu

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