# Waterloo Research in Aging Participant Pool (WRAP)

## - FALL 2015 NEWSLETTER -

***Thank you from us!***

We would like to thank you for your contribution of time in participating in our research studies to assist in furthering our knowledge of the aging process. With the help from individuals like yourself we can investigate the differences between healthy aging and disease processes such as (but not limited to) stroke, Parkinson and Alzheimer's disease.

***Do you know someone what might be interested in joining WRAP?***

We are currently looking for more volunteers like yourself to participate in studies. If you know of someone that may be interested in participating please have them contact the WRAP Co-coordinators: Bethany Delleman & Sara Scharoun, at 519-888-4567 ext. 37776

**In this issue…**




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**"linking the senior community with university research"**

## -RESEARCH HIGHLIGHTS-

# Can Age-Related Differences in Face-Name Memory be Alleviated?

**Myra Fernandes, Ph.D., Liat Kofler, Bethany Delleman, Robin Leung**

Learning and remembering people's faces and their names is a skill that people use repeatedly, and is a major concern for older adults. Past studies conducted in psychology labs examined memory for static photos paired with visually- or auditorily-presented names as the to-be-remembered stimuli, and have shown a significant age-related decline in performance. However, such studies may have been overestimating the age-related deficit in face-name memory, as there was little additional context (environmental support) offered during encoding. In our study, we examined whether presenting face-name pairs within a more social and real-world context, such as presenting videos of people introducing themselves to the participant, could alleviate age-related memory deficits. We found face-name memory improved when the person in the video was making a personal connection to participants in the study, by saying their name within a personal greeting directed at the participant. Such a finding suggests that when the social- or personal-relevance of previously unrelated information (i.e. a face and a name) are emphasized, memory improves, particularly in older adults.

# Sudoku

RULES: Fill in blanks so that each row, each column, and each of the nine 3x3 grids contain one instance of each of the numbers 1 through 9. (Answers on next page)

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

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

## BRAIN JOKES

1. What did the hippocampus say during its retirement speech?
2. What did the angry brain say to the nociceptor?
3. Why does the spinal cord belong in the brass section of an orchestra ?

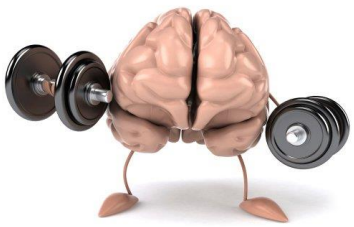
ANSWERS: 1Thanks for the memories 2. You're a real pain 3. Because it has dorsal and ventral horns

## -RESEARCH HIGHLIGHTS-

# Investigating the effects of acute moderate intensity exercise on tactile attentional processing in aging

**Christina Popovich, Ph.D., Jenna Gilbert, & Richard Staines, Ph.D.**

Aging research suggests that an acute bout of moderate intensity aerobic exercise enhances brain activity in frontal brain regions responsible for executing higher-order cognitive functions including: attentional processing of incoming sensory information, decision-making, and inhibiting erroneous responses. However, it remains unclear if exercise-related improvements in brain function are localized to frontal brain regions only, or whether these effects influence other brain areas as well. The purpose of our research study was to investigate whether an acute bout of moderate intensity aerobic exercise would improve attentional processing of tactile information in a subset of healthy older adults aged 65-75 years. To test this, we used a brain imaging technique known as Electroencephalography (EEG) and a tactile discrimination task whereby participants received vibrations to the index and pinky finger of the left hand but were instructed to attend to only one of these spatial locations and detect minute changes in the intensity of the vibration by pressing a response button with their right hand. Participants performed the tactile discrimination task prior to and following a 20 minute bout of moderate intensity aerobic exercise prescribed using the Age-Predicted Heart Rate Max formula (220-age x 60%). Results showed that following the aerobic exercise session, brain activity over frontal and parietal brain regions responsible for processing tactile information were enhanced to attended, task-relevant tactile information. These findings are novel and suggest that the cognitive effects of acute aerobic exercise appear to be global rather than highly specific to frontal regions only. They further suggest that an aerobic exercise session enhanced the ability to attend to task-relevant information in a distracting environment in a group of healthy older adults.



## Sudoku...puzzle answers

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

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

# NETWORK FOR AGING RESEARCH: UPCOMING EVENTS

## Upcoming event at the University of Waterloo:

- **2015 Fall Symposium on Aging Research**
  - Tuesday October 27: 11:30AM-4:30PM
  - Cost: FREE, Location: University Club Main Dining Room, University of Waterloo
  - Keynote Speaker: Donald Stuss, Ph.D.
  - Registration open online: https://uwaterloo.ca/network-for-aging-research/events/registration-2015-fall-symposium-aging-research

## Other events (across Canada):

- **From Possibility to Practice in Aging: Shaping a Future for All**
  - Calgary, Alberta (Friday October 23, 2015 to Sunday October 25, 2015)
- **This Is Long Term Care 2015**
  - Toronto, Ontario (Monday November 23, 2015 to Wednesday November 25, 2015)
- **Walk with Me 2016**
  - Edmonton, Alberta (Thursday March 10, 2016 to Friday March 11, 2016)
- **2016 World interRAI Conference**
  - Toronto, Ontario (Monday April 11, 2016 – Thursday April 14, 2016)

****For more information: https://uwaterloo.ca/network-for-aging-research/events****

**Are you a WRAP volunteer? Please share this newsletter with any family and friends who you think might be interested in taking part in research studies!**

**Interested in becoming a WRAP volunteer? Please contact us to find out more!!**

**For more information please see our webpage**
www.wrap.uwaterloo.ca

**Or contact us:**
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