



# Ageing Mind Initiative

Issue 28 June 2016 Newsletter  
[www.uq.edu.au/ami](http://www.uq.edu.au/ami)

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It is hard to believe that half the year has already passed. We are delighted to announce some new research projects as well as showcasing some older projects, who are still seeking participant numbers. Please contact the researchers directly to express your interest in participating.

One of the most common email requests we receive at AMI is about developments in memory research. Many people experience memory difficulties as they age and are often on the search for techniques and training to assist them improve their memory. Hannah Jensen Fielding at The University of Queensland is currently conducting a research project exploring short-term memory training (page 7). The project aims to help you feel more secure about your memory and to be able to use it better.

We hope you enjoy this month's edition of the AMI Newsletter. Thank you for your ongoing support of ageing-related research!



### ISSUE QUOTE:

"The afternoon knows what the morning never suspected." ~ Robert Frost



## AMI features on ABC Radio “The Juggle on Ageing”

The Ageing Mind Initiative was featured on ABC Radio where Emma Griffin interviewed AMI founder Dr Nancy Pachana. Pachana is also the Director of Clinical Training at the School of Psychology at the University of Queensland.

Pachana promoted the message that “it is incredibly important to keep the brain active in later life. There is a lot of focus on keeping the body active but it is just as important to keep the brain stimulated”

She suggested that there are many ways to keep the brain stimulated from reading to doing the crosswords. Provided there is some sort of challenging mental activity, it can be a protective factor against illnesses such as dementia.

Pachana also highlighted that you need to combine physical activity, physical activity and social activity for optimal benefits. So wherever possible, try to combine one or more of these things together. For example, joining a reading group combines both mental and social activity rather than choosing to only read alone at home.

Pachana also warned that to get the best outcome, you have to keep up the activity rather than it only being a one-off affair. So whatever you choose, make it something that you think you will be able to continue doing, that you genuinely enjoy. If you don't enjoy doing it, you are unlikely to continue to do it.

Listen to the full interview [click here](#).  
(Image credit to ABC Radio)



## RESEARCH UPDATE

### Can Brain Stimulation Improve Learning in Older Adults?

Studies investigating whether transcranial direct current stimulation (tDCS) can improve impaired cognition and learning in ageing are still sparse. This study is assessing whether learning and maintenance of a novel vocabulary can be improved by tDCS.

To date, we have gathered data from 40 healthy older participants who were trained over five consecutive days to learn associations between “space alien” pictures, a proper name, and two semantic attributes. tDCS was administered daily with 1 mA to the left inferior frontal gyrus for either 30 seconds (sham-tDCS) or 20 minutes (anodal-tDCS). Recall and forced-choice name and attribute recognition performance was assessed daily before (offline effects) and after (online effects) each training session, and at 24 hour, 1 week, and 3 month follow-up time points.

Preliminary analysis shows that:

- Participants in both stimulation groups successfully acquired the novel vocabulary (70% correct recall at day five).
- Participants in the anodal-tDCS group showed steeper learning curves than participants in the sham-tDCS group (29% more pronounced gains at day five).
- No significant online effects were found across the learning phase.
- However, the anodal-tDCS group showed enhanced offline effects than participants trained with sham-tDCS.
- Recognition of names and attributes was

significantly better across the training period and those effects were maintained during the short- and long-term follow-up assessments. Interestingly, this effect was mainly driven by participants with low learning ability at baseline.

These preliminary results suggest that anodal-tDCS administered to the left inferior frontal gyrus over five consecutive days may be a viable tool to enhance learning ability in advanced age. Importantly, beneficial effects were mainly found for offline testing and in participants with low learning ability. Such findings might also be relevant for treating elderly patients with incipient neurodegenerative disorders.



We are still seeking  
participants to gather the  
full data set for this study. If  
you are interested in  
participating please contact  
Garon Perceval at  
[g.perceval@uq.edu.au](mailto:g.perceval@uq.edu.au) or  
0421235651

## Book Review

Atul Gawande writes an eloquent and thought-provoking book, drawing on both his personal family experiences and his experience as a medical surgeon. His accessible writing style succinctly and honestly confronts the reality we all know, yet often choose not to face – that we are all mortal and will eventually die.

Across eight enthralling chapters, he speaks with candor about end-of-life issues. He highlights that the majority of people will spend their final days requiring some level of assistance or care. While he describes in detail the different options presently available to offer that care (e.g., assisted living and nursing homes) he also frankly outlines the deficiencies in the current model.

Gwande wrote: “We end up with institutions that address any number of societal goals—from freeing up hospital beds to taking burdens off families’ hands to coping with poverty among the elderly—but never the goal that matters to the people who reside in them: how to make life worth living when we’re weak and frail and can’t fend for ourselves anymore.”

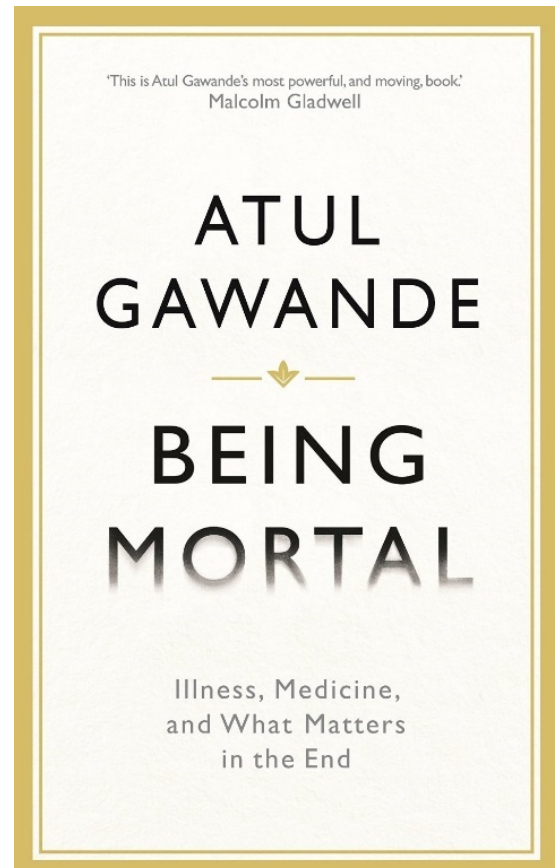
While detailing what the current system lacks, Gwande also finds examples where places have managed to capture autonomy, stimulation and meaning for its residents. These uplifting examples give the reader hope and inspires self-reflection and curiosity to consider how you want to age, and how will this be managed.

One of the strongest messages in the book was that the conversation about death and dying rarely happens in both the medical system and at home, yet needs to.

In his words: “Our reluctance to honestly examine the experience of aging and dying has increased the harm we inflict on people and denied them the basic comforts they most need.”

Through a mix of history, personal stories and patient case studies, Gwande comes to the inevitable conclusion that ultimately the trajectory of old age cannot be undone or reversed by modern medicine, no matter how far science advances. It does so in a helpful way that provides a language with which to start discussing these issues, in order to bring a higher quality of life and meaning to those approaching end of life.

Review completed by Emma Poulsen



## Website Review

Conversations about end of life can be confronting and challenging to have. But avoiding these crucial discussions can have negative impacts. The website <http://deathoverdinner.org/> aims to make these discussions easier.

The website quotes “How we want to die – represents the most important and costly conversation America isn’t having. We have gathered dozens of medical and wellness leaders to cast an unflinching eye at end of life, and we have created an uplifting interactive adventure that transforms this seemingly difficult conversation into one of deep engagement, insight and empowerment. We invite you to gather friends and family and fill a table. Click Get Started to plan a test dinner. We call it a test dinner because trying out this process in no way commits you to follow through with an actual dinner.”

Founder of the website, Michael Hebb described how the following statistic motivated him to create the website: “Nearly 75% of Americans want to die at home, yet only 25% of them do.”

The project was born! Within two months Hebb was teaching a course with Scott Macklin at the University of Washington as part of the Masters in Communication Leadership program. Ten masters students also assisted in building the foundation of the website. One month later, over 30 of the countries healthcare and wellness leaders were signed up as Advisors.

There are some very exciting things happening

in ageing research and it is clear that there are efforts being undertaken to bring the information to the community. This website is specifically aimed at encouraging people to have the conversation about death, and to have it now.

The website cites that “the dinner table is the most forgiving place for difficult conversation. The ritual of breaking bread creates warmth and connection, and puts us in touch with our humanity. It offers an environment that is more suitable than the usual places we discuss end of life.”

Regardless of whether or not you choose to go through with a Dinner, the website is certainly worth a look.

Review  
by Emma  
Poulsen



# Current Ageing Research

The following projects are looking for participants. Make a difference in Ageing Research today. Sign up now!

## We need your help if you or an adult family member or friend has hearing loss

Do you or an adult family member or friend have a hearing loss? We need your help! The University of Queensland, in collaboration with the HEARing Cooperative Research Centre, wants to find out how we might be able to use information and communication technologies (e.g., phone, internet) to address the hearing and communication needs of adults with hearing loss and their families and friends.

You will be asked to do three things:

1. Complete a short survey about your experiences with using information and communication technologies to support your health. This will take 10-15 minutes.
2. Brainstorm ways in which information and communication technologies could be used to meet your hearing/communication needs.

3. Group the statements generated during the brainstorming session according to common "themes"; and then rate the importance of each statement to you.

All tasks can be done over the Internet at a time and place that suits you.

People completing the study will be entered into a draw to win a \$100 Coles Myer gift voucher.

For more information on how you can be involved, please contact:

Carly Meyer

Email: [carly.meyer@uq.edu.au](mailto:carly.meyer@uq.edu.au)

Ph: (07) 3365 8547

**To register your interest and to complete the short survey now, [click here](#).**



## RESEARCH PROJECTS

### Help Train Your Short-Term Memory

Have you ever wondered what is really happening with your memory as you age? Or if your memory is actually failing you? Maybe you are forgetting more often where you parked your car or put your keys. If yes, then this study will be of interest to you.

I am studying the potential of a new short term memory training program in answering those questions, as well as teaching some basic memory skills that you can use in everyday life. The aim of this study is to help you feel more secure about your memory and to be able to use it better.

This study runs over five Saturday mornings over a two-month period. We are currently looking for older adults aged 65+ who can commit the time to improve their memory. Having a smartphone is good but not essential.

At this point of time we are only looking for older adults that have not been diagnosed with neurological disorder such as Dementia and Alzheimer's. The training will be held at the University of Queensland and a certificate of completion will be provided once the training is completed.

Please contact me on 0415 522 151 or email Hannah at [h.jensenfielding@uq.edu.au](mailto:h.jensenfielding@uq.edu.au) for more information or if you would like to sign up.



## RESEARCH PROJECTS

### Seeking Volunteers with Tennis Elbow and Healthy Volunteers For Tendon Pain Research

We are seeking volunteers who have tennis elbow (pain over the outer side of the elbow), and volunteers aged 35-70 years who have not had any pain or injuries in the last 6 months to participate in a study investigating different types of sensation in people with tennis elbow.

#### Background and Aims of the Project

Tendon pain and problems are very common, can be quite disabling, and are often difficult to treat. While there has been increasing knowledge of tendon problems, we still do not understand the underlying pain mechanisms. Preliminary research has indicated that there are changes in the way the central nervous system functions that might underpin the severity of tendon pain. This has been discovered by using some measures from a battery of tests called Quantitative Sensory Tests (QST). In this research project we are testing both those with and without tendon problems by using a comprehensive QST.

The study primarily aims to answer the questions:

1. What is the difference in QST between those with tendon problems and those without?
2. What is the relationship of any of these QST differences and the patient's ratings of their tendon pain and problems?
3. Will these measures predict long-term outcomes of patients with these tendon problems?

#### How much time is involved?

**Completing an online survey:** We would like you to answer some simple questions about your health and elbow pain to ascertain that you do not have any medical or health related matters that exclude you from the study. This will take approximately 5-10 minutes to complete.

**One session:** You will be required to attend 2 sessions at the University of Queensland School of Health and Rehabilitation Sciences at St Lucia where:

**A brief physical assessment** will be conducted to confirm that you do have tennis elbow.

**A battery of non-invasive sensory measurements** will be conducted. Sensory measurements test either sensation (i.e. first perception of a stimulus, such as light pressure, stroking, pin prick) or pain thresholds (i.e., the first onset of pain with a stimulus, such as pressure, heat or cold).

The first session will take approximately 2 hours and the second session will take approximately 1 hour. You will be recompensed reasonable expenses.

**Questionnaires:** Prior to attending the session, we would like you to complete a series of questionnaires, which will be emailed/mailed out to you. This should take approximately 20 minutes.

**If willing to assist, please email [sirph@uq.edu.au](mailto:sirph@uq.edu.au) for more information.**



## RESEARCH PROJECTS

### Telephone-delivered support and advice for people with knee osteoarthritis (Telecare Study)

Knee osteoarthritis (OA) is a major problem in Australia, and helping people to self-manage the condition is an important aim of treatment. Unfortunately, not all Australians with knee osteoarthritis have easy access to health professionals who can advise them how to self-manage their knee osteoarthritis. One way to potentially improve access to healthcare is to provide self-management advice by qualified health professionals, who are specially trained in the management of arthritis, over the telephone. At the moment, it is not clear what is the most effective self-management advice to provide over the telephone.

#### What will the study involve?

This project will compare two different forms of telephone-delivered support and advice for people aged over 45 with painful knee OA to find out which one works best for managing arthritis symptoms, and why. Participants will be allocated to one of two groups. Both groups will receive support and advice for the self-management of their knee OA over the telephone for a period of six months. Advice will be delivered by qualified health professionals trained in best-practice management of arthritis.

You will be asked to complete a questionnaire at three different time-points throughout the study, at the very beginning, at the end of the intervention (6 months) and then again 12 months after you complete your baseline assessment. The data that we obtain from

these questionnaires may also be used to answer other research questions relevant to the management of persistent knee pain and knee osteoarthritis.

#### Who can participate?

We are looking for participants who are aged over 45 years with knee pain on most days who are able to commit approximately 12 months to the study and have access to a telephone. You cannot participate in this study if you: have had a knee replacement in your most painful knee, have had any knee surgery within the last 3 months or are on the waiting list for surgery, or if you suffer from Rheumatoid Arthritis, neurological or cardiovascular conditions.

#### What are the benefits of participating?

By participating in the study you may find you gain some improvement in pain and in your ability to carry out normal physical activities. You may gain increased knowledge about osteoarthritis and learn useful strategies for self-managing the condition. Importantly, you will be helping us find out what to recommend to others with knee OA in the future.

To register your interest for this study, please [click here](#) to access the online survey.

OR email the trial coordinator **Penny Campbell**:  
[penelope.campbell@unimelb.edu.au](mailto:penelope.campbell@unimelb.edu.au)



THE UNIVERSITY OF  
MELBOURNE



## RESEARCH PROJECTS

Hello Members of the Aging Mind Initiative!

We are looking for people who are willing to take part in a research study looking at the role that social networks make to retirement adjustment and well-being.



Over 3 million Australians are currently retired from the work force, and while we know financial planning is important in this process about a third of people still fail to adjust well despite this planning. Research is now pointing to the importance of social networks, and our study investigates the contribution that these relationships make to retirement adjustment.

The study is being conducted by researchers at The University of Queensland, and has been reviewed and approved by the Behavioural and Social Sciences Ethical Review Committee (Approval Number: 2015001736). Taking part will involve you answering some questions in an online survey about your workplace, retirement preparation, social relationships, and sources of support and well-being.

If you are retired or about to retire and would like to be involved, please select one of the following options:

FOR THOSE WHO ARE **APPROACHING RETIREMENT**: please [click here](#) to access the online survey. After completing this we will contact you at retirement and a few months after retirement, to see if you are willing to answer similar questions. The purpose of this is to track your experience in the transition to retirement. These surveys will each take the same amount of time to complete.

FOR THOSE WHO HAVE **ALREADY RETIRED**: please [click here](#) to access the online survey. The survey takes about 30 minutes to complete. Your responses will be saved as you go, so you can take as long as you want and even come back to where you left off, within a week.

*The Groups 4 Retirement project is part of the Groups 4 Health program ([www.Groups4Health.com](http://www.Groups4Health.com)). The project is being led by Professor Catherine Haslam, Polly Fong, and Ashleigh Kelly, B.Psych.Sci. (Hons I). If you have any questions about the project please get in touch with us via the following email: [polly.fong@uq.net.au](mailto:polly.fong@uq.net.au).*



## RESEARCH PROJECTS

### Sleep and Neuroplasticity

Amongst its many functions, sleep plays a critical role in consolidating the memories and skill that were acquired during the day. When we learn a new skill or store a memory, certain physiological processes, known collectively as **neural plasticity**, take place that retain the acquired information. During a particular phase of sleep known as slow wave sleep (SWS), large, highly synchronous bursts of low-frequency brain activity known as **slow-wave oscillations** are critical in consolidating these plastic changes. Consolidation is important in promoting long-term storage of information.

Despite the undeniably important role that sleep plays in promoting neural plasticity, there are many amongst us who find it difficult to sleep properly, and thus, to gain benefit from a good night's sleep. One demographic

particularly prone to poor sleep is the elderly, and poor sleep in this group has recently been causally linked to memory dysfunction. Impairments in memory manifest because of impaired plasticity mechanisms.

Recently, non-invasive brain stimulation, transcranial discrete current stimulation (tDCS), has been used to induce these oscillations in the awake human brain, and has consequently enhanced memory. The project described uses tDCS to harness the beneficial effects of sleep in promoting plasticity in the brain in young and elderly people.

The Queensland Brain Institute (QBI) are currently running studies to investigate these processes further. For more information, please contact Martin Sale [m.sale@uq.edu.au](mailto:m.sale@uq.edu.au) for more information or if you would like to sign up.



## RESEARCH PROJECTS

### How do we respond to emotion and social cues across life span?

When people get older, they might notice challenges in their ability in remembering things or in their movement abilities. It is fascinating, however, that the way emotions are being processed remains pretty much intact or sometimes it may even improve. With age, people process positive emotions quickly and, in general, prefer happy memories over sad memories.

During my studies, I am looking at how the process of emotions from faces change as a function of age. Faces are very important components in our social interactions. Recognizing emotions from the faces have a huge impact in many aspects of our lives, in daily social communications for instance.

Therefore, I am investigating how our responses to emotional faces and social cues change by age. My study can inform society about the process of aging and what the concerns are for senior people to have healthy and happy lives.

I am seeking healthy volunteers between 65 - 80 years of age to take part in my two-hour study. The session will be held in school of Psychology at the University of Queensland. You will play some games and fill out some questionnaires. It is a great contribution to science and also you will be helping me to finish up my studies as soon as possible.

At the end of the session, you will receive \$30 reimbursement as a thank you for your time and effort. We can also arrange FREE parking for you. Please contact Charlotte on 0488104644 or [charlotte.arnold@uqconnect.edu.au](mailto:charlotte.arnold@uqconnect.edu.au)



## RESEARCH PROJECTS

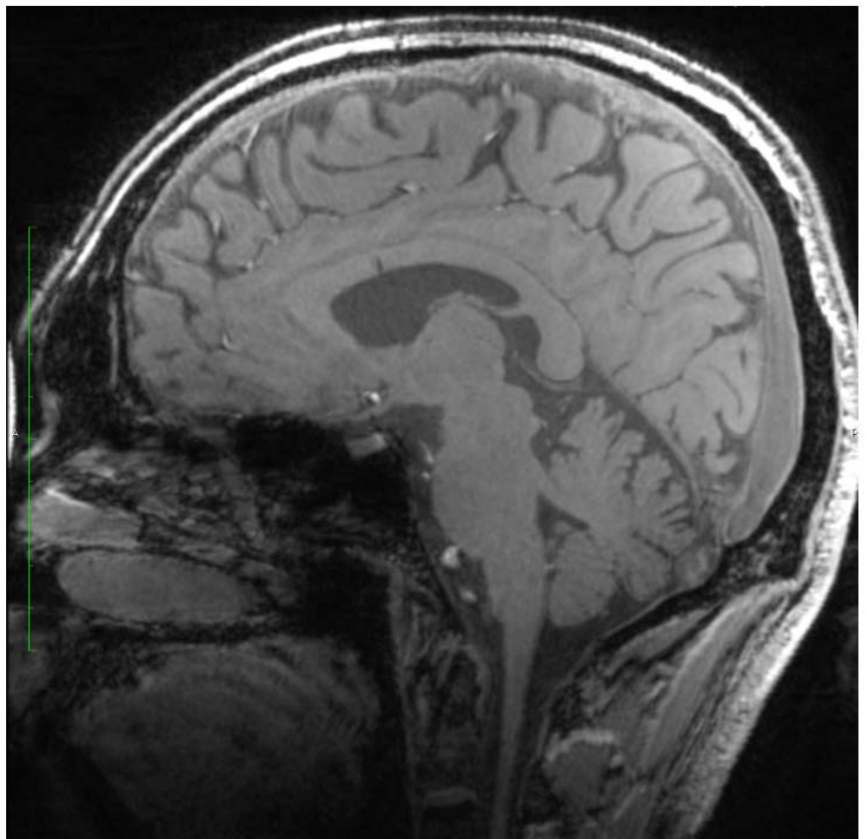
### How Does Your Brain Process Emotions?

We are conducting a study on the many ways our brain processes emotions. Emotional responses to the events of our daily lives are very diverse. We are interested in understanding how different representations of emotion in the brain are processed and which brain regions are engaged.

We will ask you to play two simple video games: the first will be a gambling task that gives you the possibility of winning a few dollars if you are fast and accurate, and the second will require you to rate images based on the emotional responses they evoke. You will perform both tasks during 2 sessions, one in an fMRI machine, and one during recording of an electroencephalogram. Both techniques are non-invasive and each session will last for 2 to 3 hours. fMRI will require you to stay still inside a narrow confined space. An extra 30-45 minute long MRI recording, with no task, will be performed after the fMRI.

We are looking for healthy adults, aged 50-65 years, right-handed, with English as a first language and no history of neurological disease, mental illness or head trauma. The research will take place at the Centre for Advanced Imaging and the Queensland Brain Institute on the St Lucia Campus of the University of Queensland. Free parking will be available.

If you have any further questions about this study, or would be interested in participating, please contact: François Windels,  
Email: [f.windels@uq.edu.au](mailto:f.windels@uq.edu.au)



## RESEARCH PROJECTS

### Do you have ongoing ankle pain or have you been told you have ankle arthritis?

Researchers at The University of Queensland are undertaking a series of research projects to investigate the effects of ankle osteoarthritis on function, muscle strength, joint movement, posture and sensitivity.

We are looking for people over 18 years of age with ongoing ankle pain or stiffness, and/or a known diagnosis of ankle osteoarthritis to participate in this research.

We are recruiting participants for two studies:

Study 1 involves completing an online questionnaire about symptoms and disability associated with ankle osteoarthritis. This study can be completed by individuals living anywhere in Australia. This survey takes approximately 20-30 minutes to complete, and will help us to better understand the problems experienced by people with ankle osteoarthritis. To thank you for participating in this study you will be sent a Merlo coffee voucher. To complete the online survey, please [click here](#) to access the online survey.

Study 2 involves coming to The University of Queensland, St Lucia campus, to participate in physical testing of the ankle. We will test muscle strength, joint movement, posture, sensitivity and performance during a range of daily tasks. You will receive a Cole-Myers voucher to thank you for your participation in this study.

If you are interested in participating in testing of your ankle please visit <https://www.surveymonkey.com/r/EOI-Lab> or email [munira.almahrouqi@uq.net.au](mailto:munira.almahrouqi@uq.net.au).



For additional information or to be added to the AMI mailing list and Listserve, please contact us via email at [ami@uq.edu.au](mailto:ami@uq.edu.au).

Alternatively you may contact Dr Nancy Pachana at  
School of Psychology, The University of Queensland  
ST LUCIA QLD 4072 or Tel. 07-3365-6832