



Memory Day 2015

Memory and Skill Across Time

Keynote Speakers:

David Kirsh UC San Diego | Qi Wang Cornell University
Pamela O. Long MacArthur Fellow | Chris Button University of Otago



6 – 9 December 2015
Barclay Theatre | Otago Museum



Free registration via
otago.ac.nz/englishlinguistics/memoryday2015

Memory Day 2015 was made possible by the support of:

The Royal Society of New Zealand Marsden Fund
The ARC Centre of Excellence in Cognition and its Disorders
Department of Cognitive Science, Macquarie University
The Donald Collie Fund, University of Otago
Division of Humanities, University of Otago
Department of English and Linguistics, University of Otago

Memory Day 2015 Organising Committee:

Evelyn Tribble
Amanda Barnier
Kirk Michaelian
Elaine Reese

Thanks to:

Sarah Entwistle
Liz Lammers
Aidan Norrie
Jo Oranje
John Sutton
Neil Vallely

Programme

Sunday 6 December

Port Chalmers Town Hall, Grey Street, Port Chalmers

4:00 pm **Introduction and welcome:** Evelyn Tribble, Amanda Barnier, and John Sutton

4:15-5:00 **Keynote I: Chris Button** (University of Otago)
Nonlinear Pedagogy: A constraints-led approach to teaching movement skills

5:15-6:45 **Panel I: Memory, Skill, and Methods Across Disciplines**

Chair: Evelyn Tribble (English & Linguistics, Otago)

Kath Bicknell (Cognitive Science, Macquarie)
Performance under pressure: skill, memory and interdisciplinary research

Rachel Yuen-Collingridge (Ancient History, Macquarie)
Disciplinary expertise in encountering the Past: Memory Studies and Historiography

Vana Webster (Cognitive Science, Macquarie)
Are we on the same page?: Exploring group strategy coordination as a collaborative memory skill developed over time

Kourken Michaelian (Philosophy, Otago)
The scope of memory: Is consciousness of subjective time essential to remembering?

7:00-9:00 Barbeque/Reception (Carey's Bay)

Monday 7 December

Barclay Theatre, Otago Museum, Great King Street

9:00-10.15 **Welcome:** Professor Harlene Hayne,
Vice Chancellor, University of Otago

Keynote 2: Qi Wang (Cornell)
Personal remembering across time and culture

10:15-10:30 Comfort Break

10:30-12:00 **Panel 2: Memory and Skill in Development**

Chair: Amanda Barnier (Cognitive Science, Macquarie)

Peter Rendell (Psychology, Australian Catholic University)
Contrasting age-related prospective memory performance in laboratory and naturalistic settings

Damian Scarf (Psychology, Otago)
Mental time travel across development

Donna Rose Addis (Psychology, Auckland)
Autobiographical memory conjunction errors in young and older adults

Karen Salmon (Psychology, Victoria)
The longitudinal relationships between overgeneral memory and adolescents' psychological functioning

12:00–1:00 Lunch (own arrangements)

1:00-3:00 **Panel 3: Forensic Memory**

Chair: Maryanne Garry (Psychology, Victoria)

Maryanne Garry (Psychology, Victoria)
Introduction

Ryan Burnell (Psychology, Victoria)
How ordered questions bias eyewitnesses

Cassandra Burton-Wood (Psychology, Victoria)
Memories you would save and erase

Andrea Taylor (Psychology, Victoria)
Eyewitnesses who feel more powerful may be harder to mislead

Brittany Cardwell (Psychology, Otago)
Nonprobative photos rapidly cause false beliefs about the past

Megan Parry (Psychology, Victoria)
The secret life of passwords

3:00-3:30 Afternoon Tea (catered)

3:30-5:00 **Panel 4: Remembering, Collaboration, and Skill**

Chair: John Sutton (Cognitive Science, Macquarie)

Catherine Browning (Cognitive Science, Macquarie)
Collaborative prospective memory in strangers and couples: The disastrous effect on keeping track of time

Rochelle Cox (Cognitive Science, Macquarie)
Using hypnosis to create amnesia, disrupt temporal sequencing, and elicit confabulation

Sophia Harris (ARC Centre for Cognition and its Disorders, Macquarie)
Recall strategies in collaborative remembering: How can we quantify collaborative skill?

Katya Numbers (Cognitive Science, Macquarie)
Age and the social contagion of false memory

5:15-6:30 **Keynote 3: David Kirsh (UC San Diego)**
Thinking with our bodies and other things

7:30 **Dinner** at Madam Woo, 115 Lower Stuart Street, Dunedin

Tuesday 8 December

Barclay Theatre, Otago Museum, Great King Street

9:00-10:15 **Welcome:** Professor Tony Ballantyne,
Pro-Vice-Chancellor Humanities, University of Otago

Keynote 4: Pamela O. Long (MacArthur Fellow)
Engineering, topography, and the lure of antiquity in late sixteenth-century Rome

10:15-11:00 Morning Tea (catered)

11:00-12:00 **Panel 5: Māori, Skill, and Memory**

Chair: Chris Prentice (English & Linguistics, Otago)

Poia Rewi (Te Tumu, Otago)
Etch it in your forehead: Whakairohia ki tōu rae

Michael Stevens (History & Art History, Otago)
'Something Māori to talk about': An embodied approach to Mātauranga

12:00-1:00 Lunch (own arrangements)

1:00-3:00 **Panel 6: Memory and Skill Across Media**

Chair: Dave Ciccoricco (English & Linguistics, Otago)

Karen Pearlman (MMCCS, Macquarie)
Woman with an editing bench: Vertov, Svilova and extended mind

Anthony Robins (Computer Science, Otago)
Artificial neural networks and catastrophic forgetting

James Tregonning (English & Linguistics, Otago)
Crossing the line: Skill automaticity and politicised violence in video games

Mark Houlahan (English, Waikato)
Rites of memory and cultural enskilling: New Zealand's Shakespeare in the Great War

3:00-3:30 Comfort Break

3:30-5:15 **Panel 7: History, Skill and Memory**

Chair: Michael Cop (English & Linguistics, Otago)

Malcolm Choat (Ancient Cultures Research Centre, Macquarie)
Memory, history and scribal practice in late Antique Egypt

Terence Doyle (Medicine, Otago)
Giordano Bruno and the Renaissance theory of Memory

Aidan Norrie (English & Linguistics, Otago)
Child actors' skill in Elizabethan entertainments

Evelyn Tribble (English & Linguistics, Otago)
Movement and memory on reconstructed Shakespearean stages

5:15 Dinner (own arrangements)

Wednesday 9 December

Barclay Theatre, Otago Museum, Great King Street

9:00-10:00 **Panel 8: Remembering Together**

Chair: Kirk Michaelian (Philosophy, Otago)

Celia Harris (Cognitive Science, Macquarie)
Conversational remembering as skilled action

Amanda Barnier (Cognitive Science, Macquarie)
Memory collaboration and conversational skill across a lifetime: Early thoughts on the impact of hearing loss

10:00-11:00 **Memory and Skill Across Time: Overview and Discussion**

John Sutton (Cognitive Science, Macquarie)

Abstracts

Keynotes

CHRIS BUTTON

Nonlinear Pedagogy: A constraints-led approach to teaching movement skills

Button, C.,¹ J-Y Chow,² K. Davids,³ I. Renshaw.⁴

1. Physical Education, Sport and Exercise Science, University of Otago, Dunedin, NZ.

2. Physical Education and Sports Science, National Institute of Education, Nanyang Technological University, Singapore.

3. Centre for Sports Engineering Research, Sheffield Hallam University, Sheffield, UK

4. School of Human Movement Studies, Queensland University of Technology, Brisbane, Australia

Historically, physical education pedagogy has been dominated by linear approaches in which the teacher is espoused with the responsibility of instructing groups of learners how to move more effectively in a gradual and sequential process. However, nonlinearity in human movement systems is omnipresent and must be accounted for in the philosophy and design of pedagogy (Chow et al., 2007). Emerging theoretical concepts from ecological dynamics have important implications for how PE teachers plan lessons, deliver instructions, structure tasks and provide informational constraints to learners. Nonlinear pedagogy specifies an individualized approach to learning, focusing on how each learner is able to satisfy the interacting constraints that are present in learning situations. The design of emotion-laden practice experiences is integral to Nonlinear Pedagogy as are teaching strategies that serve to emphasise implicit motor learning. Emerging evidence shows the nonlinear approach helps to develop important characteristics of skilled behaviour such as motor transfer, creativity, and individually-tailored movement solutions, which are not the primary emphasis of traditional PE teaching approaches (Lee, 2014; Chow et al., 2016).

References

Chow, J. Y., Davids, K., Button, C., Shuttleworth, R., Renshaw, I., & Araujo, D. (2007). "The role of Nonlinear pedagogy in physical education." *Review of Educational Research*, 77(3), 251-278. doi: 10.3102/003465430305615

Chow, J.Y., Davids, K., Button, C. and Renshaw, I. (2016). *Nonlinear Pedagogy in Skill Acquisition: An Introduction*. Oxford: Routledge. <https://www.routledge.com/products/9780415744393>

Lee, M. C., Chow, J. Y., Komar, J., Tan, C. W., & Button, C. (2014). "Nonlinear Pedagogy: An Effective Approach to Cater for Individual Differences in Learning a Sports Skill." *PloS One*, 9(8). doi: 10.1371/journal.pone.0104744.

DAVID KIRSH

Thinking with our bodies and other things

Where does thought, creativity and understanding come from? For the past six years I have been studying the creative practice of a super expert choreographer. I have also been studying problem solving, design thinking and new approaches to situated cognition. A common element running through these studies is that in natural contexts people use resources of all sorts to think with. They use their bodies, their gestures, instruments, tools, representations and everyday objects. The simple thesis I advance is that people often think their ideas through by modeling them. The models they create are partial and personal. Sometimes these models are encoded in recognized forms: words, drawings, writing. But often people use their body to create a partial model of the thing they are trying to understand. For instance, when thinking through the structure of a movement, dancers will usually 'mark' the movement rather than dance it full out. Marking is a movement reduction system like gesturing. This external modeling is itself a form of thinking because it is directed, interactive and representational. It should be regarded as much a part of thought as other expressive modalities, such as speaking, writing or drawing, all usually recognized as enactions or encodings of thought.

To defend this view I describe how thought often relies on active perception enhanced by mental projection. Because interacting with things, including moving our bodies, can improve projection it forms part of an interactive strategy for thinking. This explains how we can harness the analog computation performed by moving objects to share the computational effort of thought, and so keep thought moving forward.

David Kirsh is Professor and past chair of the Department of Cognitive Science at UCSD. He was educated at Oxford University (D.Phil), did post doctoral research at MIT in the Artificial Intelligence Lab, and has held research or visiting professor positions at MIT, Stanford and The Bartlett School of Architecture, University College London. He has written extensively on situated, distributed and embodied cognition and especially on how the environment can be shaped to simplify and extend cognition, including how we intelligently use space, and how we use external representations as interactive tools for thought. He runs the Interactive Cognition Lab at UCSD where the focus is on the way humans are closely coupled to the outside world, and how cognitive principles can be used to improve the shape, design and felt experience of environments. Some recent projects focus on ways humans use their bodies as things to think with, specifically in dance making and choreographic cognition. He teaches courses on Design, Special Projects, Creativity and Studio based work. He is Associate Director of the Arthur C. Clarke Center for Human Imagination, he is Research Advisor for Wayne McGregor | Random Dance company, he is Adjunct Professor at the Laban Conservatoire of Dance and Music, London, and he is on the board of directors for the Academy of Neuroscience for Architecture. Representative publications are: *The Intelligent Use of Space*, *Adapting the World Instead of Oneself*, *Why We Use Our Hands When We think*, *Situated Cognition and Problem Solving*, *Explaining Artifact Evolution*, *Thinking with External Representations*, *Embodied Cognition and the Magical Future of Interaction Design*.

PAMELA O. LONG

Engineering, Topography, and the Lure of Antiquity in Late Sixteenth-Century Rome

From the mid- to late-sixteenth-century, Rome was a booming construction site, a vibrant center for engineering projects involving aqueduct repair and flood control, a focus of intense investigation of ancient ruins and other antiquities, and a center for numerous print shops that turned out maps of the city and images of ancient monuments.

In this period Roman urban topography was altered by the repair and reconstruction of two ancient aqueducts, and the creation of numerous elegant new fountains; by the building of new streets and the widening and paving of existing streets; and by the transport of the great monolithic Egyptian obelisks from their ancient locations to new places that marked important basilicas and plazas. In addition, numerous efforts were made to control the flooding of the unruly Tiber River.

Both skilled craftsmen and learned physicians and humanists discussed solutions to engineering problems, wrote treatises addressing those problems, and discussed and argued with each other. At the same time, numerous individuals surveyed the city walls and other parts of the city and constructed maps—of ancient Rome as it was imagined and the contemporary city.

This talk is about how engineering, cartography, and antiquarianism were tied together and driven by the culture of print. It is about how the new Rome of the sixteenth century was shaped by the image of ancient Rome. Finally, it focuses on “trading zones” between the skilled and the learned that proliferated in this time period.

Pamela O. Long is an independent historian who has published widely in the history of technology and science and cultural history centered on fifteenth and sixteenth century Europe. Her publications include *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (2001); and *Artisan/Practitioners and the Rise of the New Sciences, 1400-1600* (2011).

QI WANG

Personal remembering across time and culture

I discuss how personal remembering, in both formal autobiographical writings and everyday autobiographical memories, is conditioned by time and culture, in line with the prevailing conception of self in a society. I further discuss the impact of historical landmark events on personal remembering.

Presenters

DONNA ROSE ADDIS

Autobiographical Memory Conjunction Errors in Young and Older Adults

Donna Rose Addis and Alea L. Devitt

School of Psychology & Centre for Brain Research, The University of Auckland

Brain Research New Zealand

It is well established that the reconstructive nature of episodic memory renders it prone to various distortions. For instance, details from one memory may be erroneously incorporated into another, forming what are known as memory conjunction errors. To date, little research has examined the formation of conjunction errors in autobiographical memory (AM). In this talk, I will describe a series of studies that reveal a number of factors influencing the formation of AM conjunction errors in young and older adults. We found that imagining events involving conjunctions of details resulted in an inflated rate of conjunction errors, particularly when the imagined events were highly vivid and plausible. Second, the phenomenology of the conjunction events during recall revealed that events that comprised more perceptual detail were more likely to be false accepted as real. Third, older adults exhibited higher rates of AM conjunction errors; this increased susceptibility to false memory was related to declines in inhibitory control processes. Overall, our findings speak towards the phenomenological similarity of conjunction events with veridical memories, as well as an inability to inhibit the familiarity of the individual details comprising the conjunction lures.

AMANDA BARNIER

Memory Collaboration and Conversational Skill Across a Lifetime: Early Thoughts on the Impact of Hearing Loss

Amanda J. Barnier, Celia B. Harris and Greg Savage

Collective Cognition Team,

ARC Centre of Excellence in Cognition and its Disorders, Macquarie University

Philosophers argue that human cognition extends beyond the mind of the individual to incorporate external resources. There is clear evidence for this view in the scaffolding that parents provide as their young children learn to remember. We have found similar evidence in the memory scaffolding that many long married, older adult couples provide for each other. We argue that across a lifetime in intimate relationships involving joint memory and action, people may form expert “remembering systems” that have (much) later cognitive payoffs. But in this paper we discuss a case in which collaborative expertise breaks down due to hearing loss. Such cases are important because there is a clear, but still unexplained, link between hearing loss and dementia. We are exploring the possibility that hearing difficulties disrupt conversational skills that are crucial to memory collaboration. Since memory collaboration may protect memory performance and general cognition, losing the benefits of collaboration may increase the risk of cognitive decline. And how might hearing support or

interventions improve collaboration and thus memory and cognition? These speculations reveal a different face of the work we have been pursuing with successful memory collaborators: cases in which the remembering system is disrupted and remembering fails.

Amanda Barnier is a Professor of Cognitive Science at Macquarie University. She is an Australian Research Council (ARC) Future Fellow and Chief Investigator of the ARC Centre of Excellence in Cognition and its Disorders. Amanda is Co-Founder and Co-Leader of Macquarie's Collective Cognition Team, which organised the first Memory Day in July 2006.

Dr Celia Harris is an ARC Discovery Early Career Research Fellow (DECRA) at Macquarie University. She is an Associate Investigator of the ARC Centre of Excellence in Cognition and its Disorders as well as Co-Founder and Co-Leader of Macquarie's Collective Cognition Team. Following her PhD, Celia was a Postdoctoral Fellow at Con Amore, the Centre on Autobiographical Memory Research at University of Aarhus in Denmark before returning to Australia to take up a Macquarie University Research Fellow then a prestigious ARC DECRA.

Greg Savage is a Professor of Psychology, Director of the Clinical Neuropsychology Training Program and Chief Investigator of the CCD (Memory Program) at Macquarie University. Over the past 20 years he has combined clinical neuropsychology practice in psychiatric and neuroscience settings with neuropsychological research, focusing mainly on memory disorders. One strand of this research aims to develop theoretically-informed tests of memory with a particular focus on early detection of Alzheimer's disease, mainly through his role as Co-Leader of the Clinical and Cognitive Stream in the longitudinal Australian Imaging, Biomarkers & Lifestyle [AIBL] Study of Ageing.

KATH BICKNELL

Performance under pressure: skill, memory and interdisciplinary research

As human beings, we perform embodied tasks, in high risk situations, under tight time pressures, with stunning regularity: Minding the gap as we exit the train. Getting behind the wheel of a car. Despite this, we're not very good at articulating how we perform these such actions, let alone describe how we manage to get them right more often than not.

At a time when cognitive science is calling for complex, articulate, ethnographic examples of skilled action, this paper asks how methods from performance studies may assist and what such research might offer the contributing strands of theory in return. To do this I will draw on methods from phenomenology and anthropology to investigate my own recent experiences learning the static trapeze. The project, "Learning to Fly," sought to learn how embodied and cognitive processes developed through 17 years of cycling transferred to developmental experiences in something unfamiliar and new. My analysis takes Ericsson and Kintsch's (1995) psychological research on long-term working memory and integrates it with theories of embodied perception, cognition and skilled

action. In doing so, I demonstrate the ways a multi-modal system of cues are set up during training to facilitate complex action sequences during performance. This fieldwork shows how athletes, performers, and those among us who are less aware of our embodied capacities, can draw on carefully tuned cognitive strategies in the face of risk, fear and the unstoppable rhythm of time.

Kath's research explores the relations between embodied cognition and cultural performance. In addition to her academic work, she writes regularly for Australian and international cycling media.

CATHERINE BROWNING

Collaborative prospective memory in strangers and couples: The disastrous effect on keeping track of time

Prospective memory (PM) is memory for activities to be performed in the future and is frequently undertaken within social interactions. Working together to remember the past produces both positive and negative effects, however we know little about the effects of collaboration on PM. In Experiment 1, we tested whether young-adult strangers working together on a controlled PM task "Virtual Week", would demonstrate the typical negative effects ("collaborative inhibition") found for episodic recall. In Experiment 1, on average across all PM tasks, we found significant costs of collaboration – collaborating pairs performed more poorly than separate individual performance would predict by 8.6%, replicating collaborative inhibition effects found in episodic recall. Although this pattern was consistent across most PM tasks, the magnitude of collaborative inhibition increased to a substantial 21.5% when the participants needed to keep track of time. In Experiment 2, we tested whether young-adult collaborating couples using the same measure might collaborate more effectively than strangers. Results indicated that the collaborative inhibition effect was eliminated in collaborating intimate couples, such that nominal and collaborative groups were similar. While collaborating couples did not incur costs of collaboration, they did not show facilitation when collaborating to perform PM tasks. Implications will be discussed.

I am a second year PhD candidate and a member of the Collective Cognition Team at Macquarie University, Sydney. My current research aims to investigate the effect of collaboration on prospective memory, with a view to identifying processes that might inform the development of compensatory strategies to assist those experiencing prospective memory decline.

RYAN BURNELL

How ordered questions bias eyewitnesses

Trivial aspects of questions can create problems for eyewitness memory. Recently we showed that these aspects can exert equally interesting influences on eyewitness metacognition: eyewitnesses who first answered easy questions were more confident in the accuracy of their memory than eyewitnesses who first answered difficult questions. But why? One explanation is that eyewitnesses formed rapid, sticky impressions about their memory—much like the rapid, sticky impressions we form of people. We addressed this explanation by asking subjects to watch a simulated crime and then answer questions about it. We ordered 30 questions either from the easiest to the hardest question, or vice versa. Finally, we asked subjects to estimate how many questions they answered correctly, and how confident they were in the accuracy of their memory. In the key manipulation, the questions were presented as either one coherent test of 30 questions, or as a less coherent three tests of 10 questions. Because incoherence diminishes impression formation, we expected that the less coherent questions would exert a smaller influence on how eyewitnesses viewed their own memory. Our findings have implications for theories of impression formation and eyewitness interviewing procedures.

I am an undergraduate psychology student at Victoria University of Wellington working on a research project in Professor Garry's lab.

CASSANDRA BURTON-WOOD

Memories you would save and erase

The power to save or erase memories at will seems like the stuff of science fiction. But given the chance, what kinds of memories would people choose to have on file, and which would people rather delete permanently? To address this issue, we asked people to describe the memory they would save and the memory they would erase. Although most of the "save" memories came from the cultural life script, the "erase" memories tended to be more idiosyncratic. Our findings support the hypothesis that people access different autobiographical memories according to how they are cued; in particular, asking people to recall a memory they would like to erase encourages them to search for a more personal event rather than relying on frameworks like 'cultural importance' to guide their recollections.

Cassandra Burton Wood is an honours student at Victoria University of Wellington. She is interested in how people think about their personal memories – especially the memories they treasure, abhor and fear.

BRITTANY CARDWELL

Nonprobative photos rapidly cause false beliefs about the past

Photos can lead people to believe true and false events happened to them, even when those photos are nonprobative—that is, when they are related to events, but do not provide evidence those events occurred. Although previous demonstrations show that nonprobative photos increase false beliefs when they are combined with misleading suggestions and repeated exposure to the photo or target event, the source monitoring framework suggests photos should exert similar effects in the absence of those factors. We examined that idea by asking people to pretend to give food to or take food from several animals. Then, during a later test, people saw the animal names again, but this time half of the names appeared with a photo of the animal and half appeared alone. People’s task was to decide whether a claim about their earlier experience with each animal was true or false. Across five experiments, nonprobative photos distorted people’s beliefs about the past even in the absence of other factors that encourage false beliefs. We also found evidence that photos operated by making it feel easier for people to bring related thoughts and images to mind—a feeling people mistake as evidence of genuine experience.

MALCOLM CHOAT

Memory, History, and Scribal Practice in Late Antique Egypt

In this paper, I review approaches to memory in scholarship on two related areas of the study of the ancient Mediterranean world in the Roman and Late Antique periods (c. 200–800 CE): early Christian monasticism in Egypt; and the reading, writing, and copying of ancient manuscripts, especially those on papyrus. In studies of monasticism (and early Christianity in general), a range of memory-study architectures have been invoked, with varying degrees of specificity, to help explain the transmission of oral traditions (which themselves survive only in written form) between generations; how monastic communities articulated their daily lives; and how monks bound themselves into a wider tradition. As noted by Davis (2013), not a little of this work is either simply redescriptive, or methodologically naïve. I will discuss the type of sources in which it might be possible to view the formation and transmission of monastic memory, looking both at autobiographical remembering, and – in a wider intergenerational context – the collective memory of monastic communities. In particular, I will assess the usefulness of inscriptions set up within monasteries in which a monk is placed within a type of genealogy which emplots them within a skeletal history of the community.

In the second part of the paper, I will discuss autograph documents on papyrus from the same period (these can be contrasted with texts which reach us via a lengthy manuscript tradition involving multiple stages of recopying and editing). Recent work has used a paradigm of working memory to help understand the scribal processes by which these documents were created and copied, and the reading-strategies employed for them and other types of ancient texts. By way of furthering our research on the duplication and copying of documents in antiquity, I assess the potential benefit of working memory theory for understanding this process.

ROCHELLE COX

Using hypnosis to create amnesia, disrupt temporal sequencing, and elicit confabulation

Rochelle E. Cox and Amanda J. Barnier

ARC Centre of Excellence in Cognition and its Disorders and Department of Cognitive Science, Macquarie University, Sydney, Australia.

Clinical confabulation involves the distortion or fabrication of memories without the conscious intention to deceive. It usually occurs in the context of amnesia, and is seen in dementia, delusional beliefs, and following traumatic brain injury. There is currently no reliable experimental technique for investigating clinical confabulation in the laboratory so we examined whether hypnosis could provide an innovative technique for modelling this disruption to memory. We developed three hypnotic suggestions designed to model confabulation that were based on theoretical views of how confabulation arises. Suggestions included: (a) an amnesia suggestion for everything that had happened since subjects started university, (b) an amnesia suggestion for university plus a suggestion to fill in gaps in memory, and (c) confusion about the correct temporal sequence of university events. We indexed memory using a confabulation battery and after hypnosis we asked subjects about the source of their memories. The amnesia suggestion produced the most confabulation, especially in response to questions involving personal semantic information. Interestingly, the majority of confabulations involved temporal confusion. We discuss the theoretical implications of these findings and the advantages of using hypnosis to model these types of clinical symptoms.

Rochelle Cox is a postdoctoral researcher in the ARC Centre of Excellence in Cognition and its Disorders, and the Department of Cognitive Science at Macquarie University, Sydney, Australia. Her main research interests include hypnosis, delusions, confabulation, and socially shared mistaken beliefs. Her work involves using hypnosis to temporarily model clinical symptoms such as delusions and confabulations in the laboratory. By modelling these symptoms, she can develop techniques that might encourage people to revise or abandon their mistaken beliefs and memories.

TERENCE DOYLE

Giordano Bruno and the Renaissance theory of Memory

Giordano Bruno, the late 16th Century Dominican friar, philosopher, mathematician and astrologer, is best known cosmological theories in which he proposed an infinite universe and the possibility of extra-terrestrial life. He fell afoul of the Inquisition for denying several core Catholic doctrines; such as the Trinity, the divinity of Christ, the virginity of Mary and the Transubstantiation. However, he also wrote extensively on the art of memory, involving Neoplatonism and Renaissance Hermeticism. He developed an elaborate system of mnemonics including a 'memory wheel' with significant images. The wheel and system were based on an earlier group of concentric circles developed by Ramon Lull for the aid of memory, using words and images from the zodiac and the Hermetic tradition. Because of its overtones of magic, the system raised considerable suspicion among some of his contemporaries, but attracted others such as Robert Fludd. This paper looks at the nature of Bruno's memory system as set out in his *De umbris idearum (On the Shadow of Ideas)* of 1582 and in particular his memory wheel. It also seeks to place Bruno in the wider ambit of the Renaissance theory of memory.

CELIA HARRIS

Conversational Remembering as Skilled Action

Celia B. Harris, Amanda J. Barnier, and John Sutton

We discuss a novel conceptualisation of group remembering as a form of skilled action. Skill develops with time, practice and/or training, and actions that are skilled come to be relatively less effortful and more automatic. Based on Wegner's Transactive Memory theory, we argue that effective group remembering requires the development of certain kinds of knowledge or expertise (content) as well as the development of conversational skills (process). Framing group remembering in this way leads to novel empirical predictions. There are likely to be differences between individuals and groups in their development of the necessary expertise and skills, particularly based on their opportunities for time, practice, and/or training. The development of these skills in certain groups should be evident in the way that they remember together, such that the process of shared remembering is crucial, and predicts collaborative success. That is, we expect heterogeneity in the outcomes of collaborative remembering in different kinds of groups, reflecting their development of skills and their conversational remembering processes. To support these arguments, we draw on empirical data from research in cognitive, developmental, and ageing psychology, to show that the outcomes of group remembering depend on the development of particular kinds of expertise and skills within the group.

Dr Celia Harris is an Australian Research Council Discovery Early Career Research Awardee, and co-leader of the Collective Cognition Team at Macquarie. Her research focuses on the costs and benefits of remembering with others, the conversational processes of memory sharing, and the functions that memory serves for individuals and groups.

SOPHIA HARRIS

Recall Strategies in Collaborative Remembering: How Can We Quantify Collaborative Skill?

Sophia A. Harris, Celia B. Harris, Amanda J. Barnier, and Greg Savage

Based on some of the first collaborative recall studies with long-married, older couples, we have argued that remembering together in well-established, intimate groups can benefit memory. Indeed, couples might be considered ‘remembering systems’ that have developed skilled, coordinated ways of remembering together throughout the course of their relationships. In the current study, we tested 39 elderly couples married 13-65 years, who collaborated to remember (1) a word list; (2) the countries in Europe; and (3) the names of their friends and acquaintances. We reversed typical ‘collaborative inhibition’ and instead showed powerful collaborative facilitation, particularly for more personally relevant memory tasks. In order to understand the reasons for this collaborative success, we transcribed the remembering sessions and developed a qualitative coding system to score the presence of implicit and explicit coordinated strategies evident in couples’ joint remembering. We discuss this coding system in detail and show examples of strategies identified in the transcripts. Evidence suggested that these strategies were associated with collaborative success, and developed with familiarity of the remembering tasks. We discuss the value of combining qualitative and quantitative data in order to understand complex social memory phenomena.

Sophia Harris is a Research Assistant working with the Collective Cognition Team at Macquarie on projects relating to collaborative and autobiographical remembering. She is also studying Anthropology at Macquarie, after previously completing a degree in Visual Arts and working as a freelance photographer. Her research interests include evolutionary anthropology, documentary film and the social aspects of memory.

Greg Savage is Professor of Psychology, Director of the Clinical Neuropsychology Training Program and Chief Investigator of the CCD (Memory Program) at Macquarie University. Over the past 20 years he has combined clinical neuropsychology practice in psychiatric and neuroscience settings with neuropsychological research, focusing mainly on memory disorders. One strand of this research aims to develop theoretically-informed tests of memory with a particular focus on early detection of Alzheimer’s disease, mainly through his role as Co-Leader of the Clinical and Cognitive Stream in the longitudinal Australian Imaging, Biomarkers & Lifestyle [AIBL] Study of Ageing.

MARK HOULAHAN

Rites of Memory and Cultural Enskilling: New Zealand's Shakespeare in the Great War

The cognitive turn in literary and other studies emphasizes the biodynamics of learning, and often focuses on individual subjects and their learning capacities. Individuals grouped as cultures also have ways of knowing and transmitting artefacts (*taonga*) and behaviours those cultures consider important. Cultural memes, to borrow Dawkins' famous linkage, transmit through conscious processes of adoption, perpetuation and allegiance. My paper examines a case study where these forces can be seen at work, and is part of a larger ARC project on *Shakespeare and Antipodal Memory* that forms the basis for a group-written book forthcoming next year from Arden/Bloomsbury (eds. Philip Mead, UWA & Gordon MacMullan, Kings College London).

1916 was the 300th anniversary of Shakespeare's death (as next year will be the 400th), and throughout the English speaking world, the war notwithstanding, Shakespeare was celebrated, performed and discussed. A Shakespeare Hut in Bloomsbury provided solace for NZ troops on their London leave from the front. Back in New Zealand there were concerts, performances, lectures and extensive coverage of the anniversary. My Otago presentation will draw on the Hocken's archives to show South Island's contribution to this intertwining of the great bard and the Great War, using soldiers' diaries and letters and the comprehensive records of the Dunedin Shakespeare Society. Perpetuating the skill of Shakespeare was seen as an essential contribution to the War's larger themes of keeping "English" civilisation secure against its foes.

Mark Houlahan is Senior Lecturer in English at the University of Waikato where he teaches theory and Shakespeare studies. He is current President of the Australia and New Zealand Shakespeare Association. Most recently he has edited *Shakespeare and Emotions: Histories, Re-Enactments, Legacies* (with R.S. White and Katrina O'Loughlin) and *Twelfth Night* (with David Carnegie) for the Broadview/Internet Shakespeare. maph@waikato.ac.nz

KIRK MICHAELIAN

The scope of memory: Is consciousness of subjective time essential to remembering?

Psychologists and philosophers often refer to memory as if it were a natural kind. But though all forms of memory involve some sort of learning on the basis of experience, the unity of the category – which includes both declarative memory, consisting of episodic memory (memory for personally experienced events) and semantic memory (memory for facts), and the varieties of nondeclarative memory – is far from obvious. In previous work (Michaelian 2011), I argued that memory is not in fact a natural kind. In particular, I argued that, while both episodic and semantic memory involve the encoding, storage, and retrieval of information, nondeclarative memory does not. The suggestion was that, though memory as a whole does not constitute a natural kind, declarative memory does – strictly speaking, only declarative memory is memory. This view of memory is narrower than usual, but Klein (2015) has recently argued for an even narrower view, employing a phenomenological criterion for memory, rather than an information processing criterion. While episodic memory involves auto-noetic consciousness (consciousness of the self in subjective time; Wheeler et al. 2015), semantic memory does not. Klein's suggestion, on the basis of historical, empirical, and conceptual considerations, is that declarative memory does not constitute a natural kind, that episodic memory does (cf. Cheng and Werning in press), and that, strictly speaking, only episodic memory is memory. At present, then, there are three competing views of the scope of memory on offer: the standard broad view (on which declarative and nondeclarative memory are both memory), my intermediate view (on which only declarative memory is memory), and Klein's narrow view (on which only episodic memory is memory). Building on more recent work (Michaelian in press b), I explore the prospects for defending the intermediate view against Klein's arguments for the narrow view, arguing that the historical, empirical, and conceptual considerations he deploys fail to undermine the view that declarative memory is memory. Nevertheless, given the centrality of auto-noesis to contemporary accounts of remembering as mental time travel, a defender of the intermediate view is under an obligation to provide a positive account of the place of auto-noetic consciousness in memory. By way of such an account, I argue that, while auto-noesis was likely essential to the evolution of episodic memory, it is not essential to episodic remembering as such (Michaelian in press a); hence we should not build it into our account of the nature of memory.

References

- Cheng, S., and M. Werning. In press. What is episodic memory if it is a natural kind? *Synthese*.
- Klein, S. B. 2015. What memory is. *Wiley Interdisciplinary Reviews: Cognitive Science* 6(1):1-38.
- Michaelian, K. 2011. Is memory a natural kind? *Memory Studies* 4(2):170-189.
- Michaelian, K. In press a. *Mental Time Travel: Episodic Memory and Our Knowledge of the Personal Past*. MIT Press.
- Michaelian, K. In press b. Opening the doors of memory: Is declarative memory a natural kind? *Wiley Interdisciplinary Reviews: Cognitive Science*.
- Wheeler, M. A., D. T. Stuss, and E. Tulving. 1997. Toward a theory of episodic memory: The frontal lobes and auto-noetic consciousness. *Psychological Bulletin* 121(3):331-354.

AIDAN NORRIE

Child Actors' Skill in Elizabeth Civic Entertainments

Child actors were a central component of Elizabethan civic entertainments. Children were seen to possess a very particular skillset, which saw their orations contain the substance of the entertainment, and allowed them to make political statements that adults could not make without serious reprisals. During the height of the marriage negotiations between Queen Elizabeth I of England and Francis, the Duke of Anjou, in 1581, child actors delivered key orations in an entertainment performed for the Queen called *The Four Foster Children of Desire*. The entertainment was a high-pressure, high-stakes event: not only was there a real possibility of the marriage taking place, the audience of the entertainment also included Anjou himself, as well as other French diplomats. In this highly pressured environment, the child actors were also expected to memorise and then recite vast amounts of prose - far more than contemporary civic pageantry usually demanded. This higher expectation of demonstrable skill indicates that the children were highly trained, but not at the level of students of the Elizabethan choir schools, as they were not involved in the performative aspect of the entertainment. *The Four Foster Children of Desire* therefore demonstrates that skill and memory expectations differed depending on the genre of the performance, and the political aspect of the show.

Aidan is a Marsden-funded postgraduate research student in the Department of English and Linguistics at the University of Otago. His thesis is examining the role of child actors in Elizabethan civic entertainments, and he has published on Elizabethan religio-political iconography.

KATYA NUMBERS

Age and the Social Contagion of False Memory

Katya T. Numbers, Amanda J. Barnier, Celia B. Harris & Michelle L. Meade

Macquarie University & Montana State University

Collaborative remembering is an important part of our daily lives as we often reminisce with others about past events. When two individuals are recalling a shared event, and one person misremembers that event, it is very easy for their memory to change the other person's memory of what happened. This is a phenomenon known as the social contagion of memory. In most circumstances being entirely accurate is not the goal of collaborative remembering. However, there are some contexts (i.e. forensic settings) where sharing erroneous details can have important and problematic consequences. Certain person-based factors can exacerbate the social contagion effect. For example, when individuals perceive someone as being more credible they are more likely to accept their judgments about an event, even if those judgments are inaccurate. One source of credibility centres on stereotypes of aging and perceptions of older adults' memory abilities over time. Older adults are viewed paradoxically as both more skilled *and* more forgetful rememberers as a function of age. This talk focuses on age differences in susceptibility to the social contagion effect, as well the role of partner age in the transmission of false memories.

MEGAN PARRY

The secret life of passwords

Passwords protect our identities, our livelihoods, and our secrets. How do people choose the passwords that will protect this valuable information? A recent article in the New York Times described several instances of people using personal memories to create their passwords. These passwords reflected features of autobiographical memory, containing information about a person's identity, personality, and future goals (Urbina, 2014). Despite the interest surrounding this article, there has been no systematic research on the relationship between passwords and autobiographical memory. We investigated the characteristics of passwords that incorporate personal events. For example, to what extent are these memories meaningful and vivid? We asked people about their passwords and the information contained within them. Thirty-nine percent of people reported using a password related to a personal event. The more meaningful and vivid an event was, the easier people reported their password was to remember. These findings suggest that passwords may be more than just a string of characters that unlock our accounts.

Megan Parry is an undergraduate Psychology student at Victoria University of Wellington. She has recently completed research in Dr. Maryanne Garry's lab and intends on applying to the Honours Programme next year.

KAREN PEARLMAN

Woman with an Editing Bench: Vertov, Svilova and Extended Mind

This paper examines the more than 30-year collaboration between acclaimed filmmaker Dziga Vertov (1898-1954) and his wife and professional associate, Elizaveta Svilova (1900-1975), as an example of 'extended mind' (Clark & Chalmers, 1998, Clark, 2008). It will first draw on my own editing experience and knowledge to describe the embodied skills and processes of a film editor. It will then demonstrate that these processes are instances of distributed cognition at work. Finally, by examining historical evidence of Vertov and Svilova's collaboration as an instance of distributed cognition, this paper will suggest that Svilova, as a full creative partner in Vertov's own extended mind, is a significantly under-recognised figure in the Soviet montage era. Svilova is the 'woman with an editing bench' seen onscreen, editing, in the 1929 *Man with a Movie Camera* (the #1 film on the *Sight & Sound* list of best documentaries ever made). Svilova's contributions were central to Vertov's achievements. Given that these contributions tend to be overlooked when appraising "Vertov's" films, just as most collaborations between editors and directors are, this paper proposes that theories of distributed cognition offer film studies a new model of collaboration to challenge the 'auteur theory'.

Dr Karen Pearlman, lecturer in screen production at Macquarie University and former Head of Screen Studies at AFTRS, Australia's national screen arts and broadcast school, is the author of *Cutting Rhythms, Shaping the Film Edit* (Focal Press, 2009 & 2015). Former President of the Australian Screen

Editors Guild and current director of the critically acclaimed Physical TV Company, she has produced, directed or edited many award winning short films. The 2014 recipient of a Macquarie University research grant on the topic of “editing thinking”, Karen is currently in production on short fiction film inspired by the life and work of Elizaveta Svilova.

PETER RENDELL

Contrasting age-related prospective memory performance in laboratory and naturalistic settings

Peter G Rendell, Susan Supega, Gill Terrett, Nathan Rose

Australian Catholic University

Age-related deficits are usually found on laboratory prospective memory (PM) tasks. In contrast, naturalistic PM studies tend to find no age differences or older outperforming young adults. Event-based PM tasks are carried out in relation to a specific event, and while they dominate laboratory PM studies, they have been absent from naturalistic PM studies. Time-based PM tasks in lab studies are typically time-check (completed after a short time interval), while naturalistic PM studies assess time-of-day tasks (completed at set times of day). This study is the first to investigate these three types of task in each setting. Forty younger and 41 older adults completed Virtual Week in the laboratory setting and used adapted mobile phones in naturalistic setting. In the laboratory setting, there were age-related deficits on each PM task. In naturalistic setting, older adults performed better than young on time-of-day, both groups performed equally well on event-based and equally poorly on time-check tasks. Older adults do poorly in both settings with PM tasks requiring monitoring of short time intervals, but do much better in everyday life on PM tasks with event cues or tasks occurring at set times of day that presumably can be accompanied by event cues.

Professor Peter Rendell is director of the Cognition and Emotion Research Centre at Australian Catholic University. The centre conducts experimental psychology research in the field of cognitive and neuropsychology. He has a focus on cognitive aging with a particular interest in prospective memory (memory for future intentions such as keeping appointments and taking medication) and episodic future thinking (ability to imagine future events and show foresight). He is also interested in memory in various other groups including autism, chronic heart failure and substance users. In addition, he is currently investigating emotional processing and social cognition in older adults and various clinical groups. He is an Associate Investigator with the ARC Centre of Excellence in Cognition and its Disorders

POIA REWI

Etch it in your forehead: Whakairohia ki tōu rae

This presentation focuses on Māori oral arts as the platform for knowledge maintenance and dissemination. It touches on formal tuition through to formulaic expressions and stealth learning. Ako-ā-kākā: rote learning has been one such medium applied by Māori for many generations: the reiteration of information shared across multiple venues and two or three generations enhances the maintenance of that knowledge from what, for many, has been, or is primarily a forum of language acquisition and/or cultural or recreational activity.

ANTHONY ROBINS

Artificial neural networks and catastrophic forgetting

Artificial neural networks (ANNs) are computational models inspired by the structure of the brain. They consist of very simple computational units which have weighted connections between them. ANNs are powerful and interesting learning systems exhibiting many of the strengths and weaknesses of human learning. One of their main weaknesses is that they are terrible at learning sequentially over time. They suffer from a problem called catastrophic forgetting, retaining new information at the expense of old. My research has explored solutions to the catastrophic forgetting problem. In particular I have proposed a solution based on "pseudorehearsal" in ANNs, and I have explored its links to the consolidation of learning that occurs during sleep and dreaming in the brain. I think that we sleep to remember.

Anthony Robins completed his BSc in Psychology at the University of Canterbury, and his MA and DPhil in Cognitive Science at the University of Sussex. He started at Otago in 1989, and has been a Professor of Computer Science since 2013. Anthony is more interested in people than computers, and much of his research has focused on computational models of learning and forgetting. More recently he has explored topics in computer science education, particularly the teaching and learning of a first programming language.

KAREN SALMON

The Longitudinal Relationships between Overgeneral Memory and Adolescents' Psychological Functioning

Karen Salmon, Paul Jose, Charlotte Gutenbrunner

Victoria University of Wellington

Overgeneral memory has been implicated in depression severity and risk for relapse. Very little is known about (1) whether overgeneral memory precedes the onset of depression in youth, and therefore, whether it is a risk factor; and (2) more generally, the incidence and correlates of overgeneral memory in non-clinical youth. I will present preliminary findings from 4 annual waves of a longitudinal study in which we address these questions in a sample of New Zealand adolescents, ages 10-15 years at wave 1. I will discuss the implications of our findings for theories of the role of overgeneral memory in psychopathology.

DAMIAN SCARF

Mental time travel across development

Humans possess the unique ability to mentally travel backward in time to re-experience past events (i.e., episodic memory) and forward in time to pre-experience future events (i.e., episodic foresight). Although originally viewed as different cognitive skills, they are now collectively referred to as *mental time travel* and are thought to rely on the same network of brain regions. Recently, it has been suggested that this system may not only allow us to pre-experience and predict our own future but also that of another person. In the current talk I present a series of studies investigating the ability of three- and four-year-old children to reflect on the past and plan for their own future and for that of another person. I discuss these findings in relation to current theories mental time travel (e.g., self-projection and scene construction).

I received my PhD from the University of Otago in 2011. Following my PhD I began a Postdoctoral Fellowship in Professor Harlene Hayne's developmental lab at the University of Otago. In 2013 I joined the faculty of the Department of Psychology at the University of Otago as a Lecturer.

MICHAEL STEVENS

‘Something Māori to talk about’: An embodied approach to Mātauranga

Two key issues that contributed to and sustained the so-called Māori Renaissance, which began in the late-1960s, were the decline of te reo Māori (the Māori language) and the ongoing alienation of Māori freehold land (a specific tenure of land). In response, the New Zealand Parliament made te reo Māori the country’s second official language in 1987 and established Te Taura Whiri i te reo Māori (the Māori Language Commission) to foster and monitor its health. Likewise, Te Ture Whenua Māori Act was passed in 1993 that effectively made Māori freehold land, which covers about 5% of New Zealand’s landmass, inalienable. Alongside these developments the New Zealand Government and Māori kin-groups have negotiated constitutional property settlements for the Crown’s historical breaches of the Treaty of Waitangi. Now “recapitalised”, these groups, mainly iwi, have embarked on economic and cultural development programmes. While material traditions have not been totally ignored as part of the latter, efforts and funds have been primarily directed towards the revitalisation of te reo Māori. So much so, te reo has, to a large extent, become a synonym for Māori culture as a whole, as opposed to a part of it. This is a consequence of the logic that language is the portal to a culture; in other words, without te reo Māori one cannot access or disseminate mātauranga Māori (Māori knowledge). However, this paper outlines a wider and embodied view of mātauranga Māori—one that is attentive to material traditions such as wild-food harvesting and preservation, weaving, and carving—to show that such claims are demonstrably untrue. This wider view thus opens up lines of enquiry regarding the now mixed nature of indigenous knowledge as well as its contemporary transmission and acquisition. This approach, which privileges lived practice and a focus on place, therefore departs from the application of abstract principles that characterises much of the scholarship on mātauranga Māori.

ANDREA TAYLOR

Eyewitnesses who feel more powerful may be harder to mislead

Andrea Taylor, Mevagh Sanson, Maryanne Garry, & Deryn Strange

When eyewitnesses to a crime are exposed to misleading information about what they witnessed, they often incorporate some of that incorrect information into their memory for the crime. We know that witnesses are more likely to incorporate this misleading information when its source sounds more powerful. But we do not know what would happen if the witnesses themselves felt more powerful. To what extent would witnesses who feel more powerful be less susceptible to being misled, compared to witnesses who feel less powerful? We addressed this question by showing subjects a video of a staged crime, then asking them to briefly adopt either an expansive pose known to make people feel more powerful, or a contracted pose known to make people feel less powerful, before exposing them to misinformation about the crime they saw, and then testing their memory for what they witnessed. Preliminary results indicate that subjects were misled, but the pose they adopted had little effect on

how susceptible to the misinformation they were. Our findings have practical implications for areas such as eyewitness memory.

Andrea is an undergraduate psychology student at Victoria University of Wellington interested in memory and its application to criminal settings. She has recently completed a trimester doing research in Maryanne Garry's lab, and she plans to complete an Honours degree in 2016.

JAMES TREGONNING

Crossing the Line: Skill Automaticity and Politicised Violence in Video Games

We are familiar with the ideological function of literature – from the Marxism of Brecht's theatre to the fascism of Ezra Pound's cantos. Perhaps less familiar is the notion of ideology conveyed through skilled action. In this paper I examine the ideological nature of play in video games, focusing on Yager's 2012 *Spec Ops: The Line* to illustrate the nature of player conditioning through skill-based play, and the ways in which that conditioning may be disrupted. *The Line* inhabits a genre of video game that revolves around contemporary American military engagements in the Middle East. One of the criticisms of the genre is that it seems to be a sort of Americentric war propaganda. Although video games are not the only medium charged with glorifying war in the Middle East, they are considered particularly potent because they teach players to automate violence against Middle Eastern people. However, John Sutton's theory of meshed control suggests that although play may be automated to some extent, this merely frees up the higher cognitive functions, rather than disengaging them. *The Line* is thus able to construct its ludic system within a dystopic narrative arc, prompting players to reflect on their play through a series of disastrous events.

James Tregonning has just completed Honours in English at the University of Otago, writing his thesis on how the nature of a medium affects the way in which audiences internalise ideology. He was supervised by Lyn Tribble and David Ciccoricco, and plans to take a break before returning to do his Masters.

EVELYN TRIBBLE

Movement and Memory on Reconstructed Shakespearean Stages

All 'original practices' companies are necessarily selective about which practices they choose to engage – including, amongst others, reconstructed stages in shared light (Shakespeare's Globe, the American Shakespeare Theatre); illumination by candlelight (the Sam Wanamaker playhouse); cross-gender casting, costuming, and the use of rehearsal practices such as cue-scripts (the Original Shakespeare Company, the ASC Renaissance season). In all cases, collisions (sometimes productive, sometimes less so) occur between contemporary practices, assumptions, and habits and the past practice that is being addressed. These are not mere reproductions, but instead complex cognitive ecologies of emergent and changing practices.

Less discussed has been the dimension of movement – seen here broadly as gesture, bearing, walking, as well as fence and dance. How can we see the intersection between the “kinesic intelligence” of the contemporary actor and his or her historical counterpart? This paper will draw upon work in embodied and distributed cognition to examine the ways that contemporary actors attempt to inhabit historical bodies. One of my interests is in emerging practices, especially around fight choreography, which has become increasingly embedded and professionalized in the past few decades, and which requires distinct forms of memory, skill, and practice. This talk will examine both broader questions of movement and the specific instance of stage fighting on reconstructed stages.

Evelyn B. Tribble is Professor and Donald Collie Chair of English at the University of Otago, Dunedin, NZ. She is the author of *Margins and Marginality: The Printed Page in Early Modern England* (Virginia, 1993); *Writing Material: Readings from Plato to the Digital Age* (with Anne Trubek, Longmans, 2003); *Cognitive Ecologies and the History of Remembering* (with Nicholas Keene, Palgrave, 2011); and *Cognition in the Globe: Attention and Memory in Shakespeare's Theatre*, Palgrave, 2011). She has also published scholarly articles in *ELH*, *Shakespeare Quarterly*, *Shakespeare*; *Shakespeare Survey*; *Shakespeare Studies*; and *Textual Practice*, among others.

VANA WEBSTER

Are we on the same page? Exploring group strategy coordination as a collaborative memory skill developed over time

V. Webster, A. J. Barnier, P. Van Bergen, C. B. Harris

Macquarie University

M. L. Meade

Montana State University

Remembering with others is an everyday experience. However, studies exploring costs and benefits of recalling together typically find collaborative inhibition (CI), such that groups recall less than the same number of individuals (pooled) working alone. CI is thought to occur because collaboration disrupts *individual* retrieval strategies. There is growing evidence to suggest that using *group* strategies may reduce retrieval disruption, reducing or overturning CI. It remains unclear, however, if group strategy coordination is an emergent skill developed over a long period of time or if group strategies can be rapidly adopted. In this paper we report results from two collaborative recall experiments. In Experiment 1 we asked pairs of unfamiliar undergraduate university students to recall three 40-item categorised word lists either alone or together, with half the pairs given an opportunity to nominate a retrieval strategy prior to the second recall point. In Experiment 2 we asked long-time married, older adult couples to recall a 24-item categorised word list alone and then, one week later, together. We will discuss how development of group strategy coordination is influenced by factors including practicing a recall task together, the presence or absence of shared knowledge and experiences, and explicit discussion of retrieval strategies.

I am a PhD candidate in the Department of Cognitive Science at Macquarie University. My PhD project aims to explore the costs and benefits of remembering with others. More specifically, I am interested in how intimacy, the need for memory assistance, and the use of coordinated retrieval strategies influence the amount people are able to recall together.

RACHEL YUEN-COLLINGRIDGE

Disciplinary expertise in encountering the Past: Memory Studies and Historiography

The influence of the 'cognitive turn' is now apparent in many disciplines within the humanities, but its reach into ancient world studies has been haphazard. By contrast, isolated adaptations of memory research have been taken up with considerable enthusiasm for the analysis of cultural transmission and collective identity (e.g. Assmann). However, the appropriation of memory theory by ancient historians has not always been sensitive to the disciplinary commitments of the fields from which such theory has been excerpted. These borrowings can sometimes treat psychology, philosophy and cognitive science as a static repository of convenient aphorisms which can be opportunistically reinterpreted. Their attempts to explain the workings of memory are selectively coopted to redescribe older preoccupations of historical research (as tradition, orality, reception, and identity). A truly interdisciplinary response to memory requires ancient history to be more self-conscious about its own commitments through a sympathetic encounter with those of the disciplines it plunders. This paper will explore how an engagement with current developments in the study of memory (transactive memory and distributed cognition) can transform the methods and aims of ancient history, the skills of the ancient historian, and open up the discipline to an intersubjective engagement with the past.

Dr Rachel Yuen-Collingridge is a postdoctoral researcher on two projects (Papyri from the Rise of Christianity in Egypt and Scribal Practice in Duplicate Documents) at Macquarie University. In addition, she is working on projects on the Renaissance reception of Herodotus, scribal practice in the Greek magical papyri, and, more recently, the role of subjectivity and memory in historical practice. She has taught at the University of New South Wales, the University of New England, and Macquarie University.