

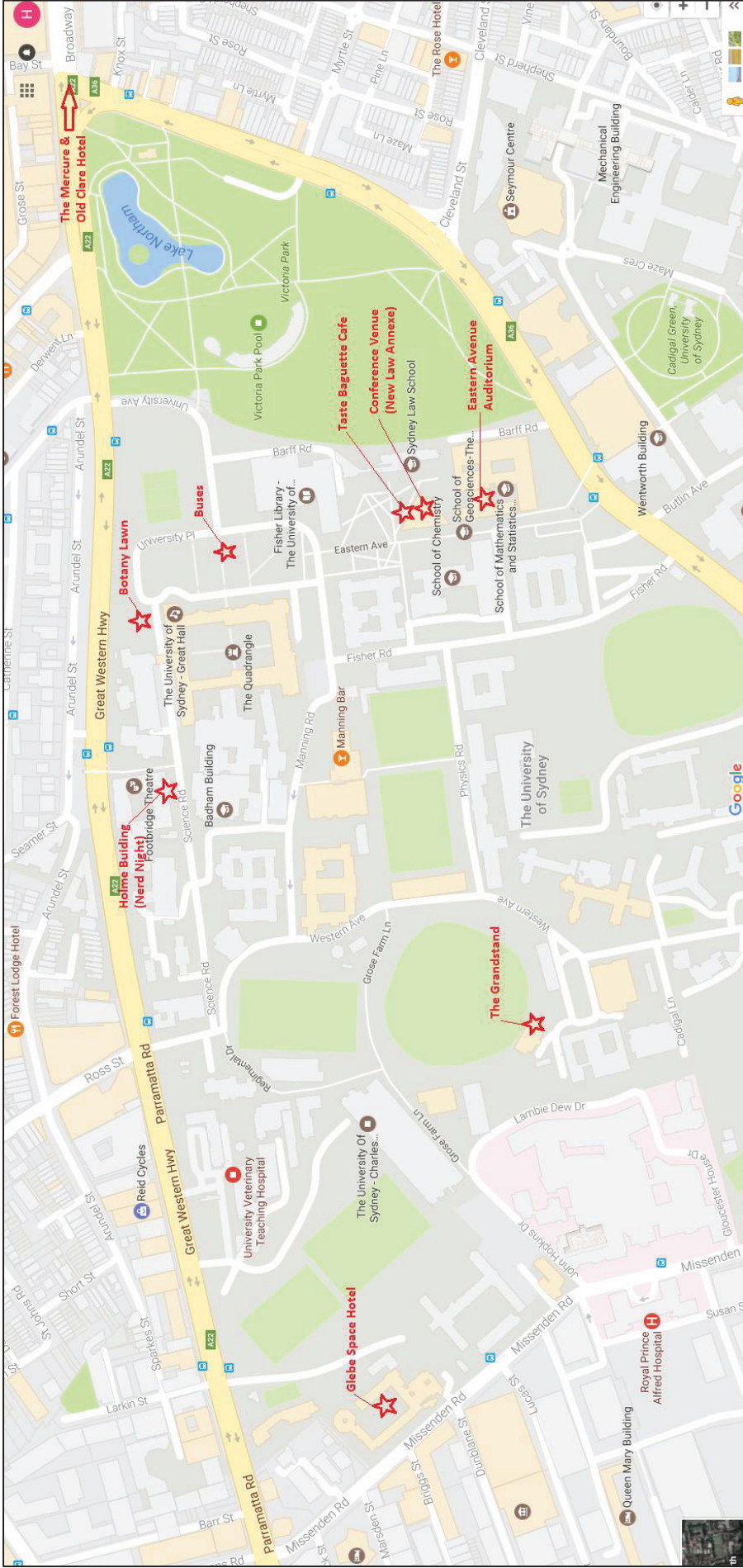


SARMAC XII

SOCIETY FOR APPLIED RESEARCH IN MEMORY AND COGNITION

January 3-6 2017 Sydney AUSTRALIA





The University of Sydney

Table of Contents

Welcome.....	2
Committees.....	3
Student Volunteers/Sponsors.....	4
Conference Venue.....	5
Guidelines for Presenters.....	7
Wi-Fi Instructions.....	8
Workshops.....	9
Keynote Speakers.....	10
J. Don Read Early Career Award Recipients.....	14
Social Program.....	15
Insider’s Guide to Sydney.....	16
Brief Program.....	23
Tuesday 3rd.....	33
Wednesday 4th.....	34
Thursday 5th.....	62
Friday 6th.....	82
Presenter Index.....	103
Registrant Emails.....	106
Notes.....	110



Welcome

The Society for Applied Research in Memory and Cognition (SARMAC) is dedicated to encouraging and promoting quality scientific research in applied domains. The purpose of the Society is to enhance collaboration and co-operation between basic and applied researchers in memory and cognition. SARMAC meets every two years to showcase our most recent research in a wide and varied program.

This will be the 12th biennial meeting of SARMAC. Our mission is to achieve a friendly, informal, but very high quality conference experience that will make the most of the beautiful Sydney location and the unique Australian culture.

In the tradition of SARMAC we have organised a scientific program of the highest international quality. We will offer hundreds of papers (three full days of five parallel sessions), 22 symposia, two workshops, a poster session, and five exceptional keynote speakers including Distinguished Professor Elizabeth Loftus, Professor Neil Brewer, Professor Richard Bryant, Professor Maryanne Garry, and Professor Qi Wang.

We also plan to have a good time. We have organised an extensive social program including a BBQ reception, a trip to the famous Bondi Beach, a Nerd Night extravaganza, a conference dinner, and the opportunity to see koalas and kangaroos at the Australian Wildlife Zoo.

Committees

Local Organising Committee

Co-organisers

Helen Paterson, University of Sydney

Richard Kemp, University of New South Wales

Conference Planning Committee

Professor Amanda Barnier, Macquarie University

Professor Kate Stevens, Western Sydney University

Dr Jeff Foster, Western Sydney University

Professor John Sutton, Macquarie University

Dr Celia Harris, Macquarie University

Dr Misia Temler, University of Sydney

Associate Professor Pauline Howie

Dr Celine van Golde, University of Sydney

Program Committee

Chair: Professor Amanda Barnier

Deputy chair: Professor Maryanne Garry

Deputy chair and local organizing committee representative: Professor Richard Kemp

Interdisciplinary perspectives: Professor John Sutton

Professor Donna Rose Addis

Professor Stephan Lewandowsky

Professor David Balota

Professor Michelle Moulds

Associate Professor Iris Blandon-Gitlin

Professor Alice O'Toole

Professor Neil Brewer

Professor Monisha Pasupathi

Professor Fiona Gabbert

Professor Suparna Rajaram

Associate Professor Nate Kornell

Student Volunteers

Dr Misia Temler has coordinated the contributions of the following student volunteers:

Ashley Adolphe	Christel Macdonald
Elizabeth Austin	Claire Maddox
Lily Baccon	Carey Marr
Ruby Brown	Nina McIlwain
Hayley Cullen	Dr Thomas Morris
Sarah Deck	Katya Numbers
Roy Groncki	Marissa Papaspiros
Hannah Gutmann	Alena Skalon
Anton Harris	Curie Suk
Sophia Harris	Nicola Uechtritz
Vicky Lim-Howe	Nikolas Williams

Volunteers have special yellow nametags and when on duty will be wearing SARMAC XII t-shirts. Feel free to approach them with questions or concerns.

Sponsors

We are grateful for financial support from the following generous sponsors:

The University of Sydney, School of Psychology

The University of New South Wales, School of Psychology

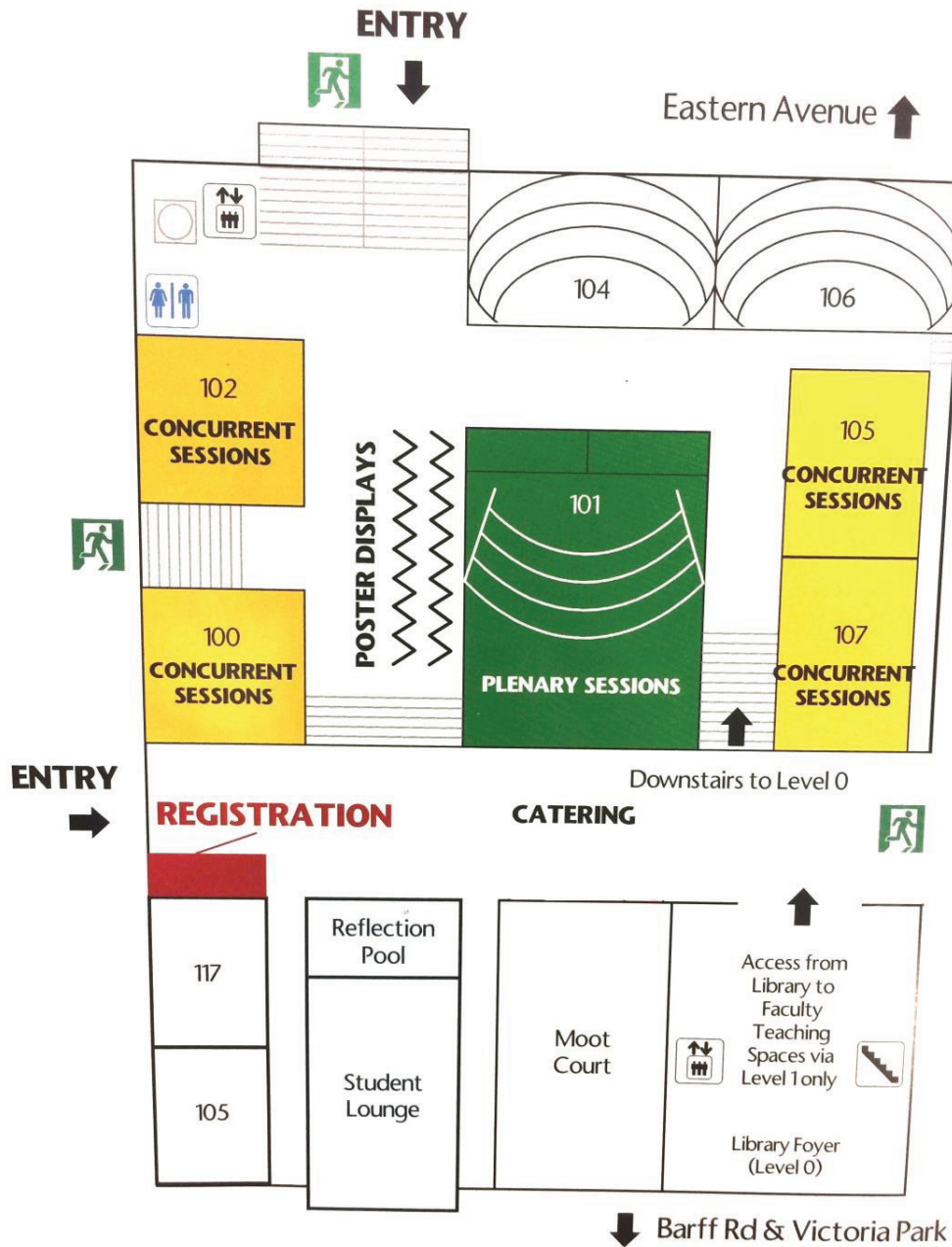
The Psychology Foundation of Australia

ARC Centre of Excellence in Cognition and its Disorders

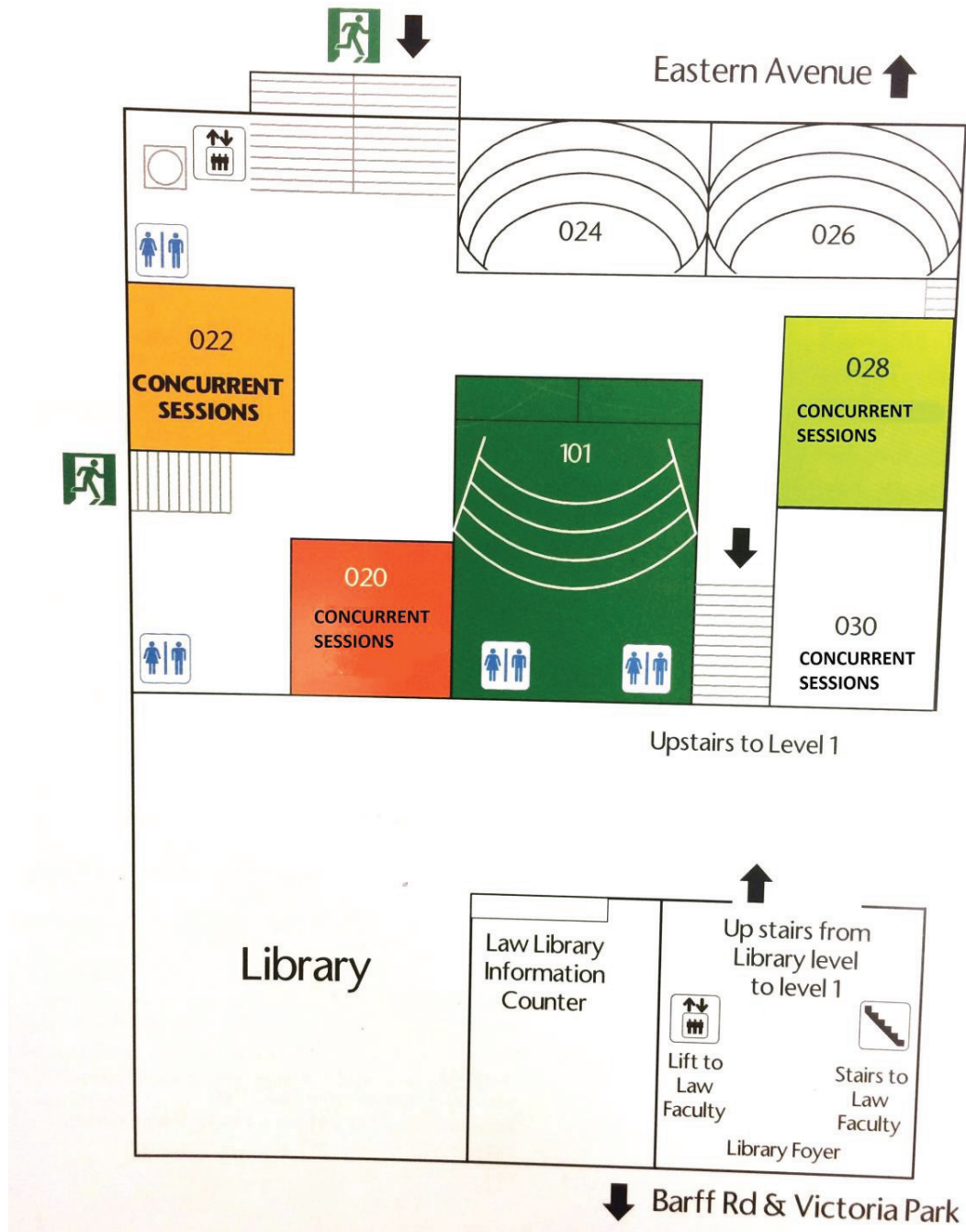
Conference Venue

On January 4th and 6th, the conference will be on Level 1 of the New Law School Building at the University of Sydney. On January 5th The University will be hosting an information day for prospective students, so the conference will be moved down to Level 0.

January 4 & 6: Level 1 of the New Law School



January 5: Level 0 of the New Law School



Guidelines for Presenters

Posters

Posters are to be mounted at least 15 minutes prior to the beginning of the poster session. We will provide pushpins for mounting posters. The poster panels will be numbered, using the same numbering system as in the program (e.g., if the program indicates that your poster is #13 you should mount your poster on the panel labelled #13).

Individual Papers and Symposia

Organizers of symposia are asked to Chair their sessions. For regular paper sessions, we ask that the first speaker take responsibility for Chairing the session. For papers that follow on from symposia before a break, we ask that the symposia chairs continue to chair the session until the break. Session Chairs are asked to ensure that presentations are loaded onto the laptop before the session begins, instruct speakers as to the meaning of the time signals (described below), briefly introduce each speaker, and time speakers as described below (and delegate someone else to serve as timer for their own presentations).

Timing: Papers (whether in symposia or regular sessions) should be no more than 12 minutes (plus 2 minutes for questions). Session Chairs are asked to make every effort to keep speakers to schedule. This is partly to ensure that each speaker gets the same amount of time, and partly so that audience members can move between sessions to attend talks of particular interest to them. Some sessions have fewer speakers than others, but even so each talk should be kept to a total of 14 minutes (perhaps using the remaining time for more open-ended questions and answers and discussion).

Session chairs will signal speakers when 5, 1, and 0 minutes are left in the 12-minute speaking time and when the entire 14-minute time has elapsed. Signs and bells will be provided for this purpose. We ask that the Session Chair introduce him/herself to the speakers before the session starts and ensure that speakers understand the meaning of the signs (e.g., that "5 min left" means 5 minutes in the 12-minute talk time, after which there will be an additional 2 minutes for questions, but that "Stop" means "Please stop now"). The Session Chair will use the bell if the presenter does not notice the sign.

AV equipment: Each room is equipped with a PC with a recent version of PPT, a data projector, and a microphone. Each room is staffed by a SARMAC XII Student Volunteer who will summon assistance if AV issues arise.

Speakers are to load their presentations onto the PC during the break before the session. The schedule gives only 1 minute between the end of one talk and the beginning of the next. Speakers are advised to have their presentations on a USB key or in email form (see below). If a speaker must use his/her own laptop, then any time taken up switching systems between talks.

should be part of the speaker's allocated 14-minute total, so speakers who plan to use their own laptops would be wise to prepare a slightly shorter talk. They should also ensure that they provide their own adapter/dongle (see below).

USB/thumb key: This is unlikely to pose any problems, but it is strongly advised that you check the compatibility of your USB well in advance of your presentation.

Fool proof backup: Our IT people advise that, as a backup or as your primary system, you email your presentation to yourself so that you can download it onto the computer in the room in which you will be presenting. All conference room computers have secure internet access and your details will be deleted after you have accessed your email.

Running your presentation direct from your laptop: This is the least preferred method. Our conference rooms are VGA equipped – the PCs have external connections for VGA - not HDMI. We do not advise using your laptop unless you want to use presenter mode in PowerPoint, as we cannot guarantee to provide the required adaptors. If you do want to use your laptop, check that it has a VGA port, which will allow you to plug your computer directly into the cable on the lectern. If your laptop does not have a VGA port, you need to bring your own adaptor/dongle to allow connection to VGA, and check compatibility well in advance. This applies to Windows laptops as well as Macs.

Wi-Fi Instructions

Conference delegates can access free Wi-Fi while on campus at the University of Sydney. Start by connecting your Wi-Fi-enabled device to the “**UniSydney-Guest**” wireless network (e.g., on iPhone, “Settings” and the “Wi-Fi). Then enter the **Guest Username: “SARMAC”** followed by the **Guest Password: sarmac2017**. If you are not prompted for a username and password, open a web browser and go to <https://auth.wireless.sydney.edu.au/guest/guest.php> and log in with the username and password provided.

Workshops

Functional MRI: Basics to breakthroughs: January 3, 9:00-12:00

About the workshop: Functional MRI is the major technique of cognitive and social neuroscience, providing researchers with an insight into the brain at work. However, as with most complex techniques, there are various issues that can hamper interpretation of even the “prettiest” data. This workshop, for beginners, will provide you with the foundation knowledge needed to critically evaluate the latest functional MRI research. You will learn about the basics of good functional MRI design, how the scanner measures brain activity, different analytic techniques, as well as some of latest controversies and breakthroughs in the field.



About the presenter: Professor Donna Rose Addis is a cognitive neuroscientist based in the School of Psychology at The University of Auckland where she leads the Memory Lab. She is also the Associate Director of the Centre for Brain Research and a Principal Investigator for Brain Research New Zealand. Her research uses neuroimaging techniques to understand how our brains enable us to remember the past and imagine the future, and how these abilities change with age, dementia and depression. Prof Addis has 15 years of experience using fMRI methods, having trained at world-leading imaging centres in Toronto and Boston. She has published over 80 scientific articles and chapters, and has been awarded over \$10M in grant money to support her research. In 2010 she was the recipient of an inaugural Rutherford Discovery Fellowship and the prestigious Prime Minister’s MacDiarmid Emerging Scientist Prize. Most recently, she was awarded the 2015 Young Investigator Awards from the international Cognitive Neuroscience Society as well as the Australasian Cognitive Neuroscience Society.

No replication crisis here! Learn to do open, reproducible science: January 3, 12:30-3:00

About the workshop: In the workshop, we will discuss the reproducibility problems afflicting many of the sciences, and how various psychology journals and professional societies are incentivising better ways of doing things. Hands-on, you will practice study preregistration and the use of tools such as OSF.io for collaboration and project management. You will learn how to take advantage of new journal-based and other initiatives to both improve your practice of science, increase the ease with which you publish your work, and accelerate the rate at which you receive feedback from peers and accrue citations.



About the presenter: In 2006, Associate Professor Alex Holcombe joined the founding advisory board of the journal PLoS ONE. Ever since, he has been active in many new initiatives related to open science, such as PsychFiledrawer.org (co-founder), CurateScience.org, and the openness article badges adopted by Psychological Science and other journals to reward open practices. Two years ago, he co-founded a new article type, the Registered Replication Report at the journal Perspectives on Psychological Science.

Keynote Speakers

Distinguished Professor Elizabeth Loftus



Elizabeth Loftus is Distinguished Professor at the University of California, Irvine. She holds positions in the Departments of Psychology & Social Behavior, and Criminology, Law & Society. And she is Professor of Law.

Loftus received her undergraduate degree in Mathematics and Psychology from UCLA, and her Ph.D. in Psychology from Stanford University. Since then, she has published 23 books and over 500 scientific articles. Her books have been translated into Dutch, French, German, Japanese, Chinese and other foreign languages.

Loftus's research has focused on human memory, eyewitness testimony and also on courtroom procedure. Her work has been funded by the National Institute of Mental Health and the National Science Foundation. She was elected president of the Association for Psychological Science (APS), the Western Psychological Association (twice), the American Psychology-Law Society, and the Experimental Psychology division of the American Psychological Association (APA).

Loftus has received seven honorary doctorates for her research, from universities in the United States, but also The Netherlands, Great Britain, Israel and Norway. Her other honors and awards are numerous. She has won both of the top awards from APS (the James McKeen Cattell Fellow in 1997 and the Williams James Fellow Award in 2001).

In 2003, the same year that she received the APA Distinguished Scientific Award for Applications of Psychology, she was also elected to membership of the American Academy of Arts & Sciences, and the American Academy of Political and Social Sciences. In 2004 she was elected to the National Academy of Sciences. In 2005, she won the Grawemeyer Prize in Psychology (to honor ideas of "great significance and impact.") Also in 2005 she was elected to the Royal Society of Edinburgh, which is Scotland's national academy of sciences and letters, established in 1783. In 2006, she was elected to the American Philosophical Society, which is the oldest learned society in the United States, Est. 1745 by Benjamin Franklin. In 2009 she received the Distinguished Contributions to Psychology and Law Award from the American Psychology-Law Society. In 2010, she received the Warren Medal from the Society of Experimental Psychologists (for "significant contributions to the understanding of the phenomenology of human memory, especially its fragility and vulnerability to distortion"). She also received the 2010 Scientific Freedom and Responsibility Award from the American Association for the Advancement of Science (for "the profound impact that her pioneering research on human memory has had on the administration of justice in the United States and abroad."). In 2012, she received the University of California, Irvine Medal (for "exceptional contributions to the vision, mission, and spirit of UC Irvine"), the highest honor the university bestows. In 2013, she received the Gold Medal Award for Lifetime Achievement in Science

from the American Psychological Foundation (for “extraordinary contributions to our understanding of memory during the past 40 years that are remarkable for their creativity and impact”).

Loftus has been an expert witness or consultant in hundreds of cases, including the McMartin PreSchool Molestation case, the Hillside Strangler, the Abscam cases, the trial of Oliver North, the trial of the officers accused in the Rodney King beating, the Menendez brothers, the Bosnian War trials in the Hague, the Oklahoma Bombing case, and litigation involving Michael Jackson, Martha Stewart, Scooter Libby, and the Duke University Lacrosse players.

Scientia Professor Richard Bryant



Richard Bryant is Scientia Professor of Psychology, University of New South Wales, NHMRC Senior Principal Research Fellow, and Director of the Traumatic Stress Clinic, Westmead Hospital, Sydney. He has published over 500 articles on trauma, anxiety, and memory. He has authored the leading text on acute stress disorder and served on both the DSM-5 and ICD-11 committees rewriting the new diagnoses for PTSD. He has received multiple research grants from the NHMRC and ARC. His work has focused on the assessment and treatment of trauma reactions, as well as the cognitive and biological mechanisms underpinning traumatic stress. He has done many laboratory and naturalistic studies of memory following trauma and mapped how these processes impact on how people respond psychologically to a traumatic experience. In June 2016 he received an Order of Australia for eminent service to medical research in the field of psychotraumatology, as a psychologist and author, to the study of Indigenous mental health, as an advisor to a range of government and international organisations, and to professional societies.

Professor Qi Wang



Qi Wang is a professor in human development at Cornell University. Her research integrates developmental, cognitive, and sociocultural perspectives to examine the mechanisms responsible for the development of autobiographical memory. She has undertaken extensive studies to examine how cultural variables sustain autobiographical memory by affecting information processing at the level of the individual and by shaping social practices of remembering between individuals (e.g., sharing memory narratives between parents and children). Her other lines of work include the study of future thinking in cultural contexts and the investigation of the influence of social media on memory reconstruction. A graduate of Peking

University, China, Qi Wang earned a Ph.D. in psychology in 2000 at Harvard University. She

then joined the Cornell human development faculty as an assistant professor and was made a full professor in 2011. She has received many honors and awards, including the Young Scientist Award from the International Society for Study of Behavioral Development (2006), the Award for Distinguished Contributions to Early Research from the Society for Research in Child Development (2005), and the Outstanding Contribution to Research Award from SRCD Asian Caucus (2013). Her research has been frequently published in scientific journals and in volumes of collected works. Her first book, *The Autobiographical Self in Time and Culture*, a study that shows how the self that is made of memories of the personal past is formed and shaped by micro and macros cultural processes, was published in 2013 by Oxford University Press.

Professor Neil Brewer



Neil Brewer is Matthew Flinders Distinguished Professor of Psychology at Flinders University and a Fellow of the Academy of Social Sciences in Australia and the Association of Psychological Science.

His early research was on processing speed, intelligence and development. In the late 1990s his research focus shifted to the forensic area, addressing a variety of eyewitness memory issues and shaping our understanding of the significance of eyewitness confidence. His research has also explored the relationship between Theory of Mind Deficits, criminality and Autism Spectrum Disorder.

His eyewitness memory research has been funded by the Australian Research Council since 1998, with the results published in many of the most prestigious generalist psychology journals as well as the various specialist psychology and law journals. He has co-authored and edited several books, including *Crime and Autism Spectrum Disorder: Myths and Mechanisms* (2015, Kingsley), *Psychology and Law: An Empirical Perspective* (2005, Guilford), *Psychology and Policing* (1995, Erlbaum), *Conflict Management in Police-Citizen Interactions* (1998, McGraw-Hill). He has been the primary supervisor of 15 PhD graduates in the eyewitness memory area.

He regularly addresses judges' and magistrates' conferences in Australia, and provides advice on police operational procedures and legislation associated with eyewitness identification. He has also been involved in Amicus Briefs for courts in the US.

He has served on the editorial boards of all the major international psychology-law journals and is currently Editor-in-Chief of the APA's *Journal of Experimental Psychology: Applied*.

Professor Maryanne Garry



Maryanne Garry received her PhD in 1993 from the University of Connecticut, and did postdoctoral work at the University of Washington, and in 1996 moved to Victoria University of Wellington, where she is now a Professor of Psychology.

She studies a puzzle of memory: how is that otherwise intelligent, rational people can remember things they never really saw, or experiences they never really had? Over the years, she has amassed a solid body of theoretically-grounded applied research that helps us shed light on the causes and consequences of these false memories.

Although Garry's research is widely cited both in her own discipline and in the allied disciplines of law and clinical psychology, it is also accessible enough to feature in myriad undergraduate textbooks, in popular books written for an educated lay audience, and on numerous television and radio documentaries.

J. Don Read Early Career Award Recipient 2015
Associate Professor Jason Chan



Jason Chan earned his B.Sc. in Psychology at the University of Victoria, Canada, where he completed an honors thesis with Steve Lindsay. He worked as a lab manager for Mike Masson and Daniel Bub the following year. He obtained his Ph.D. in 2007 from Washington University in St. Louis under the guidance of Kathleen McDermott and joined the faculty at Iowa State University the same year, where he has remained since. Dr. Chan has received numerous honors for his research and teaching, including the Shakeshaft Master Teacher Award and the J. Don Read Early Career Award.

Dr. Chan's research on human memory, particularly his work on retrieval processes in the context of education and eyewitness testimony, has been published in some of the top journals in the field. He currently serves on the editorial board of *JEP: Learning, Memory, and Cognition*, *JEP: Applied*, and *Journal of Memory & Language*. Dr. Chan's research focuses on improving memory performance in both the educational and legal contexts. His work on retrieval practice and its benefits for memory retention has been widely cited, and this work also led to the discovery that prior retrieval can increase eyewitness' susceptibility to later presented misinformation, a finding Chan and his colleagues termed "retrieval enhanced suggestibility."

J. Don Read Early Career Award Recipient 2016

Assistant Professor Andrew C. Butler



Dr. Butler is an assistant professor in the Department of Educational Psychology at the University of Texas at Austin. He earned a Ph.D. in cognitive psychology at Washington University in St. Louis in 2009 and completed a postdoctoral fellowship at Duke University. Dr. Butler is interested in the malleability of memory – the cognitive processes and mechanisms that cause memories to change or remain stable over time. More specifically, his research focuses on how the process of retrieving memories affects the content (e.g., events, specific details, narrative structure, etc.) and phenomenological characteristics (e.g., confidence, emotional intensity, vividness, etc.) of those memories. His program of research addresses both theoretical issues in cognitive psychology and practical applications to education and mental health. The broad aim of this research program is to gain a better understanding of how retrieval affects: memories held by individuals and those shared by groups (i.e. collective memories); memories for simple materials (e.g., word lists, facts, etc.) to more complex memories that are rich in sensory detail, emotion, and self-relevance, among other characteristics; and newly formed, episodic memories in contrast to well-learned semantic memories that have been integrated into the knowledge base.

Social Program

Student Meet and Greet

Students will have the opportunity to meet one another prior to the commencement of the conference at Taste Baguette on January 3rd from 2:00-3:00pm.

Conference Reception

A trip to Australia would not be complete without attending an Aussie BBQ. Join us for nibbles and drinks at the Botany Lawn on January 3rd from 3:00-5:00pm. (In case of rain, it will be held at The Grandstand).

Breakfast in Bondi*

We have arranged for an early morning bus transfer to and from the beautiful Bondi Beach on Wednesday, 4 January. Buses will depart from the University of Sydney Quadrangle Building at 6:30am sharp. You will be free to have a swim, walk along the beach, and/or enjoy breakfast in a nearby cafe. Delegates will arrive back in time for the conference. Please note that it is perfectly acceptable to arrive at the conference with sand between your toes. In fact, we encourage it! However, if you choose to go for a swim, you can shower afterwards at Bondi. *Breakfast not included.

Lunch with the Experts

Students will be able to enjoy lunch and sit at a table with an expert in their area. The lunch will be held at The Grandstand on January 4th from 12:30-2:00pm.

Nerd Night

Join us at the Holme Building for a fun night of comedy and nerdery on January 4 (6:00-8:30pm). We have arranged for some interesting, hilarious, yet somewhat dorky presenters: Associate Professor Thomas Denson, Dr Michael Kasumovic, Dr Thomas Whitford, and Dr Astrid Zeman. Be there and be square.

Conference Dinner

The conference dinner will be held on January 5th from 7-11:30pm at Waterfront (27 Circular Quay West, The Rocks). The conference dinner will include a two course alternate serve menu, and a 3 hour beverage package (7.00-10.00pm; cash bar to be available once the beverage package concludes). Buses will depart from the Quadrangle Building at 5:30 and 6:30pm.

Australian Wildlife Zoo

Following the closing ceremony, we will head to Darling Harbour to see local Australian fauna. Cost of entry is \$26 and money will be collected on Friday from anyone interested in going.

Insider's Guide to Sydney

For the outdoor type: A guide to walking, hiking, wildlife and beaches



Pauline Howie: Honorary Associate Professor at The University of Sydney

Pauline Suggests:

First a warning: Don't get burnt! The Aussie sun is HOT in January! If you are heading outdoors, take water, a hat and sunglasses, a serious sunscreen, and a light-weight long sleeved cover-up!

Australian Wild life: At Taronga Zoo (great harbour setting, 15 minutes by ferry from Circular Quay) you'll see all the Australian native animals (including nocturnals), but it will take you the best part of a day, so if you have limited time, go for the Wild Life Sydney Zoo at Darling Harbour. For an amazing array of fish and close-up shark encounters, the Sea Life Aquariums at Darling Harbour or Manly are great. You'll have to go further afield to see our big native animals in the wild, but a walk around the harbour will show you plenty of birdlife and the occasional big lizard.

Coastal and harbourside walks: Useful websites: www.sydneycoastwalks.com.au and www.wildwalks.com

My picks: The Bondi Beach to Coojee beach cliff top walk passes through Tamarama, Bronte and Clovelly beaches. Plenty of coffee and lunch choices (especially at Bronte and Coojee). It's 6 km one way (allow 2+ hours), but if you burn out, there are buses to the city from all the beaches. The Watsons Bay/South Head loop is an easy, 4.2 km (2 hours max), with great views from the historic lighthouse at the South Head of Sydney Harbour. Reward yourself at the Watson's Bay pub (great outdoor/indoor bistro), or the upmarket Doyles Fish restaurant. Take a ferry to Watson's Bay from Circular Quay. For the energetic, go for the Manly Scenic Walkway: A 10 km (3-4 hours) walk from Spit Bridge to Manly through bush, cliff tops and beaches, with spectacular views, and ending in the bustle of Manly. Take the bus to Spit Bridge from the city (30 minutes) and the ferry from Manly back to the city. For a **relaxed walk around the harbour**, combining ferries, a taste of bush, drooling at rich people's houses, and spectacular harbour views, take a 15 minute ferry ride from Circular Quay to one of the wharves at Kurraba Point, Cremorne Point, Old Cremorne, South Mosman, Mosman Bay, or Taronga Zoo and walk the harbour-side tracks between the wharves, then take the ferry back to the city.

Walks further afield: Palm Beach to Barrenjoey. Starting at Palm Beach, at the northern tip of Sydney, this 2.2 km loop track (about 1.5 hours), rises steeply to Barrenjoey Lighthouse with spectacular views. Palm Beach is an hour by bus from the city but worth the trip. If you want a

wilderness experience, there's Ku-ring-gai Chase National Park where you can walk or kayak along the Hawkesbury River, and the Royal National Park in the south, with plenty of walking and beaches. If you have time, the Blue Mountains offers great hiking, canyoning, rock climbing and bush camping (you won't see any mountains but the escarpments are spectacular!); and to the south there are great camping spots in Kangaroo Valley, Pretty Beach and Jervis Bay.

City walks and strolls: The Rocks, the Opera House and the Botanical Gardens are all within walking distance of each other, and Barangaroo Reserve, Darling Harbour and the Fish Markets are not far away, but don't try to cover them all in one day! The Rocks was the centre of Sydney's wild early colonial days, and is a great place to explore whether you're interested in history, architecture shopping, eating or drinking. Try the "Walking the Rocks" app, the "I'm Free" walking tours, or self guided walks covering Sydney's aboriginal and colonial past at www.cityofsydney.nsw.gov.au/explore/getting-around/walking/sydney-walks.

It's worth a wander around the narrow streets of Paddington with its rows of Victorian terraces with iron lacework, interspersed with cafes, boutiques, art galleries and pubs, and the famous Paddington Saturday market. Explore the side streets off Elizabeth Street or Five Ways. Get there by bus from Circular Quay or the city. Balmain is another pretty and historical suburb near the CBD, accessible by ferry. Mort Bay Park, near the Balmain Wharf, is a great picnic spot and play area for children and a good base for a stroll around the area.

"Doing" the Harbour Bridge climb is not cheap, and of course the most expensive is the best – the twilight tour gives you daytime views as well as the lights of the city at night. Book ahead - it's high season. If you're on a budget, just walk across the Bridge with the commuters, and climb the 200 steps of the South Pylon (adults \$13) for good photo opportunities. After you cross the bridge, head west and discover the delights of Luna Park and Lavender Bay, or east to Kirribilli.

For the beach lover: A guide to swimming, snorkelling and surfing

Sydney is spoiled for beaches, from the surfing beaches (treat the surf with respect, and swim between the flags!) of Manly, Collaroy and Dee Why and Palm Beach in the north, and Bondi, Tamarama, Bronte, Coogee and Maroubra in the south, to the sheltered ocean swimming of Shelly Beach near Manly and Clovelly in the east, to the calm harbour waters of Balmoral and Clontarf beaches. Plenty of cafes and coffee stops at all of these. Many beaches also have great natural sea pools carved out of the Sydney sandstone.

My picks: my local beach, Clovelly, is a 30 minute bus ride from the city, and has a child friendly beach and deep waters further out, protected from ocean waves (on most days) by a reef at the bay entrance. The snorkelling is great, with lots of shoal fish, and the occasional huge blue groper. Magic at high tide on a calm day. Manly offers "the works" with a surf beach on the ocean side, great snorkelling at Shelly Beach (known for its sea horses), and a harbour beach on the ferry side. You can hire snorkelling and scuba gear at the ProDive Coogee, and the Dive Centre Manly, but best to book in advance.

For the little ones: A guide to kids' activities

Helen Paterson: Senior Lecturer at The University of Sydney/Sydney-loving Mum



Helen suggests:

For a great day outdoors, catch a train or ferry to Milson's Point on Sydney's leafy North Shore. Have a swim (there's an indoor pool) at the North Sydney Olympic Pool. Head next door to Luna Park, and have a ride on the Ferris wheel to see the sights of Sydney. Pack a picnic and eat lunch in nearby Clark Park or Wendy Whitely's Secret Garden, which is a hidden Sydney Gem.

If you are staying in the city, be sure to visit Darling Harbour. You could visit the Sea Life Aquariums, the Wild Life Sydney Zoo, Maritime Museum, Chinese Garden of Friendship, or play at the Darling Quarter Kids Playground.

If your kids (or you!) are animal lovers, why not catch a ferry to Taronga Zoo? Kids of all ages will love it. Make sure you see the elephants having their bath (about 10am), the seal show, and the bird show. Taronga Zoo has some of the best views of Sydney!

On a rainy day I would take the kids to the Australian Museum. Young ones can go to 'Kidspace' on Level 2. Kids of all ages will love the dinosaurs and skeletons. Otherwise, take them to the Powerhouse Museum. Littlies are guaranteed to love the Wiggles Exhibit, and there's plenty of other interesting and interactive exhibits to capture their attention. The café and playground are also great!

Other rainy day ideas are the State Library of New South Wales and the . Museum of Contemporary Art. Both are beautiful buildings bursting with Australian literature, art and history. Both the museum and library hold workshops and tours for toddlers and older kids. Check out their websites http://www.sl.nsw.gov.au/events/series/kids_at_the_library.html and <http://www.mca.com.au/series/kids-families/>.

For the shopaholics: A guide to markets, malls and boutiques



Misia suggests:

If you are looking for gifts to take home or just want to indulge in some shopping therapy for yourself, Sydney offers a real diversity in shopping precincts. Whether you prefer strolling through stalls in a market atmosphere, browsing your favourite international brands or discovering one off boutiques and fashions, Sydney has something for everyone.

Markets: Paddy's Markets **10 am to 6pm, Wednesdays**

through Sundays, has held a central place in Sydney's history for over 150 years. Located in Sydney's Chinatown Haymarket,

(Market City, Cnr Hay St & Thomas St,) Paddy's Markets are Sydney's biggest markets and have a wide variety of stalls; food, fashion, gifts, gadgets, and souvenirs in a true market atmosphere. Also check out Glebe Markets **10am – 4pm, Saturdays**. Conveniently located next to the university campus, the Glebe Markets have diversity, character and style. Finally the Rocks Markets **10am – 5pm, Saturdays and Sundays** is an open-air market is located in Sydney's historic tourist The Rocks area and situated between beautiful Sydney Harbour and the Harbour Bridge. Stroll along cobbled laneways through stalls run by local Australian designers to find fashion, handcrafted jewellery, textiles, homewares, art, beauty products, photography, and much more. If food stalls are more your thing, there is The Rocks Foodie Market on Fridays 10 – 3pm.

Malls and Boutiques: Broadway Sydney is situated close to The University of Sydney campus and offers a wide array of fashion, food and life style stores. Pitt St Mall is at the centre of the city and offers almost everything. The Strand Arcade just off Pitt St Mall and the Queen Victoria Building located on the corner of George and Druiitt Street are two of the most stunning heritage buildings in the city, and hold a wide array of beautiful shops, cafes and jewellery stores. The Westfield CBD on Pitt St Mall is a space worth checking out if only for the sleek modern marble architecture and homage to decadence and consumption. It has a great selection of popular local designer brands (Tigerlily for swimsuits, Sass & Bide for fun styles, Leona Edmiston for cute frocks in yesteryear prints, and Zimmerman for special wear). All of this shopping might leave you in need of some caffeine –check out **Gumption** on the ground floor of the Strand Arcade for a great coffee hit. Hungry? Check out the food court in Westfield for a dizzying array of choices.

Have an interest in opal jewellery? Head down George Street at The Rocks. Opals are the national gemstones of Australia and 95% of the world's opal for use in the jewellery industry is produced in Australia. Check out Opal Minded, 55 George Street, which has been rated best Opal shop by Trip Advisor. The staff is knowledgeable and prices are competitive and fair.

A guide to music, theatre and art in Sydney

Sophia Harris: Research Assistant for Amanda Barnier, Department of Cognitive Science, Macquarie University



Sophia suggests:

Music: Sydney has a range of music venues where you can catch local and international artists most nights of the week. For touring international and Australian bands, check out Enmore Theatre or Metro Theatre. Oxford Art Factory often features Australian bands, and a visit here gives you the chance to explore Sydney's famous Oxford Street. For free or inexpensive local acts, visit Gasoline Pony or Lazybones Lounge in Marrickville, Corridor in Newtown or Mr. Falcon's in Glebe. Leadbelly Newtown is a short walk from the university and features free live music several nights a week. If you're after jazz, see what's on at 505 in Surry Hills, Foundry616 in Ultimo or The Basement near Circular Quay. For an eclectic array of jazz and world music acts, check out Camelot Lounge and Django Bar in Marrickville.

Theatre: Early January can be a quiet time for theatre, but thankfully Sydney has plenty of venues to try your luck at. Check out Sydney Theatre Company for award-winning Australian and international works. Belvoir Street Theatre in Surry Hills and Ensemble Theatre in Kirribilli are known for producing innovative classic and current works. If musicals are your thing, see what's on at Capitol Theatre or Lyric Theatre. The Seymour Centre, just across the road from the university, plays host to a range of theatre, dance and musical performances. If you're after comedy check out Happy Endings Comedy Club near King Cross or Giant Dwarf in Redfern. For local and contemporary works that won't break the bank, have a look at New Theatre in Newtown or The Old Fitz Theatre near Kings Cross.

Art: For major visiting exhibitions and Australian historical and Indigenous works, visit The Art Gallery of New South Wales near the Royal Botanic Gardens. Museum of Contemporary Art in Circular Quay is where you'll find innovative Australian and international contemporary works. Carriageworks near Redfern provides an amazing exhibition space and is also host to markets, music and live performances. Many smaller galleries can be found near the university, including Verge Gallery on campus and White Rabbit Gallery in Chippendale, which boasts an impressive collection of contemporary Chinese art. P.S. If you're sticking around after the conference, Sydney Festival kicks off on the 6th of January, and features a range of free and ticketed art, theatre and music events.

A guide to eating and drinking in Sydney

Celine van Golde: Associate Lecturer at The University of Sydney, who can appreciate a good meal and a drink (or two).

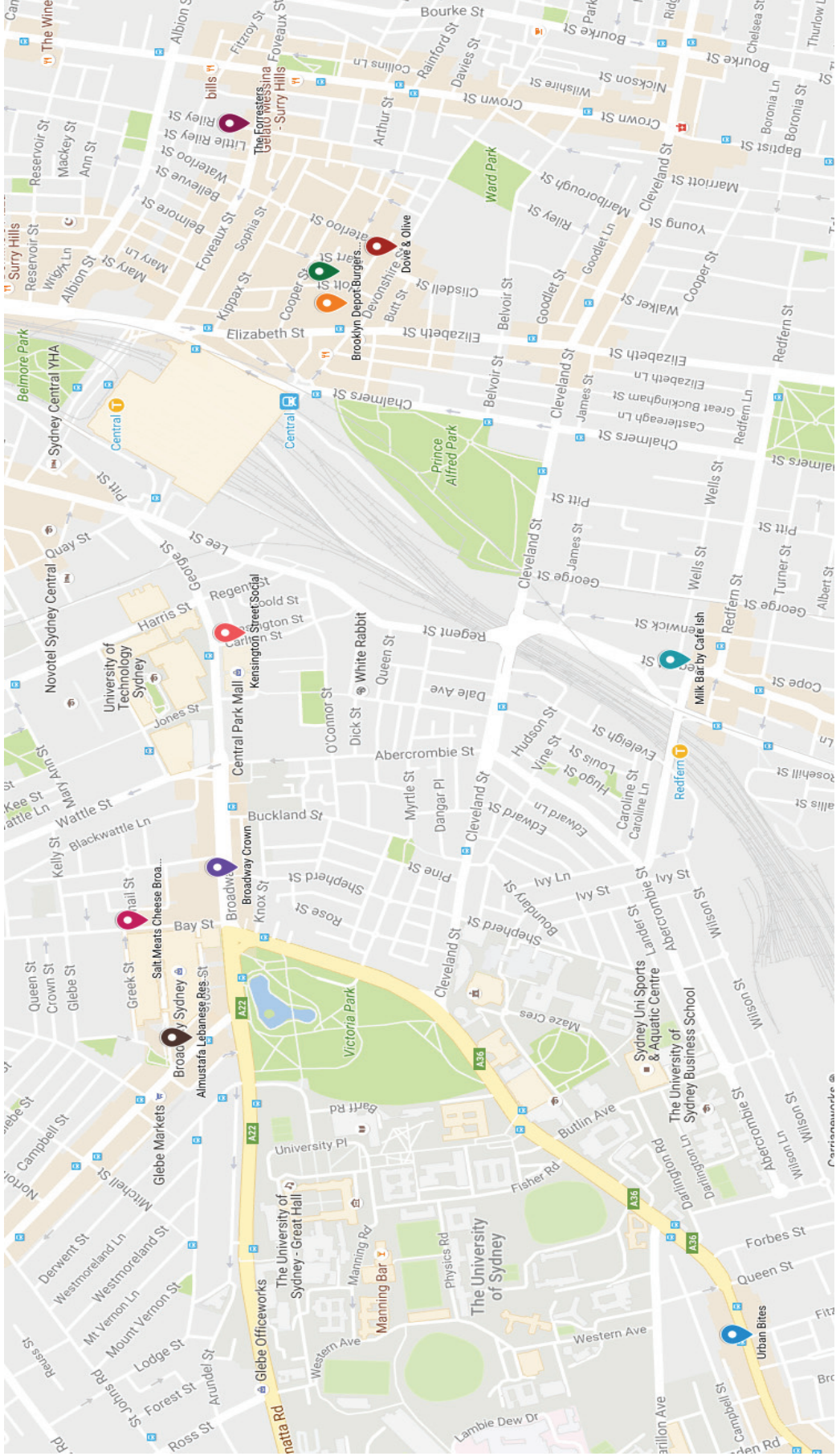


Celine suggests:

The Forresters is a bustling pub offering up steak specials and casual grub amid kitschy murals and checkered floors. They provide daily meals deals and a wheel of fortune which might earn you a free pizza! **Dove and Olive** offers a decent pub meal, craft beers (boutique), and is close to central station. **Brooklyn Depot Burgers and Brew** has great American style burgers, and yummy cocktails Brooklyn depot (close to central). **121 BC** is a tiny Italian wine bar. The restaurant is known for its excellent knowledge of wine and great tapas style Italian food, which you'll order of a blackboard.

Kensington Street Social is located within The Old Clare Hotel in Chippendale. The relaxed menu focuses on Mediterranean sharing plates that showcase the very best Australian produce and wine, but be warned it is a bit more pricey and booking is a must! **Spice Alley** is opposite the **Old Clare Hotel** (which has a great rooftop, pool bar) and offers multiple Asian street food style stalls. **Broadway Crown** is the perfect uni pub, cheap but good quality meal deals and cheap cocktail deals. **Salt Meats Cheese** is a family-owned Italian restaurant group and purveyor of gourmet Italian produce. They are all about using quality local ingredients and having fun with the menu. From Nutella Bombs to Flaming Wheels of Cheese, they are Sydney's most loved Italian providore. **Almustafa** is a yummy Lebanese feast. It has a raucous space for mixed grills and tabbouleh, with hanging textiles and belly dancing on weekends. **Urban Bites** has great burgers, steak and pasta served in a casual, funky hangout with a courtyard and street-side seating. **Milkbar by Café ish** also has outstanding burgers. Creative milkshakes, burgers and all-day brekkie in a retro cafe with arcade games and a jukebox make this place standout.

A guide to local eating and drinking



Brief Program

Tuesday 3rd

Time	Eastern Avenue Auditorium	Botany Lawn (Grandstand if raining)	The Grandstand	New Law Annexe Room 442	Taste Baguette
8:00-9:00			Meeting of Governing Board		
9:00-10:00			Meeting of Governing Board	Workshop: Neuroscience	
10:00-11:00			Meeting of Governing Board	Workshop: Neuroscience	
11:00-12:00			Meeting of Governing Board	Workshop: Neuroscience	
12:00-1:00	Registration		Governing Board Lunch	12:30: Workshop on Replicability	
1:00-2:00	Registration			Workshop: Replicability	
2:00-3:00	Registration			Workshop: Replicability	Student meet and greet
3:00-4:00	Registration	BBQ Reception	Recitration (if raining)	Workshop: Replicability	
4:00-5:00	Registration	BBQ Reception	Registration (if raining)		
5:00-6:00	Opening Ceremony				
6:00-7:00	Loftus public lecture				
7:00-7:30	Loftus public lecture				

Wednesday 4th

Time	Event	Room 1	Room 2	Room 3	Room 4	Room 5
6:30-9:30am	Breakfast @ Bondi	Breakfast @ Bondi	Breakfast @ Bondi	Breakfast @ Bondi	Breakfast @ Bondi	Breakfast @ Bondi
9:30am	Keynote	Keynote: Richard Bryant	Intrusive memories: Phenomenology, correlates, and causes'	Keynote	Keynote	Keynote
10:30am	Break	Break	Break	Break	Break	Break
11:00am	Symposia and papers	Katya Numbers 'Factors that influence monitoring of misinformation' S1: Robert Michael S2: Maria Zaragoza S3: Katya Numbers S4: Sara Davis S5: Elizabeth Loftus	Richard Bryant 'Cognitive and memory processes in clinical disorders' S1: Richard Bryant S2: Peter Baldwin S3: Shanta Dey S4: Ewa Siedlecka S5: Paula Hertel	Aline Cordonnier 'The new horizon of foresight: From philosophy to applied settings' S1: Kourken Michaelian S2: Aline Cordonnier S3: Muireann Irish S4: Donna Rose Addis S5: Peter Rendell S6: Kimberly Mercuri	David White & Jonathon Phillips 'Facing the future: Understanding human and machine performance in face identification systems' S1: Kay Ritchie S2: Rebecca Heyer S3: David Robertson S4: Dana Michalski S5: David White S6: Jonathon Phillips	Christin Koeber 'Parents' contribution to constructing narrative identity' S1: Elaine Reese S2: Mary Dewhirst S3: Magdalena Kuhn S4: Alice Graneist S5: Theodore E. A. Waters S6: Christin Koeber
11:15am						
11:30am						
11:45am						
12:00pm						
12:15pm		Keith A. Hutchison 'The role of working memory capacity and cognitive load in deception'	Jacinta Oulfton 'Imagining trauma: Memory amplification and the role of elaborative cognitions'			
12:30pm	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
12:30pm		Student Lunch with Experts				
2:00pm	Symposia and papers	Muireann Irish 'Autobiographical memory in health and disease' S1: Donna Rose Addis S2: Melanie Cohn S3: Suncica Lah S4: Laurie Miller	Kazuo Mori 'Research proposal: Assessment of the international index of conformity ratio of co-witness pairs by utilizing the Garry-Mori experimental procedure' Misia Tessler 'A model for memory report variability across retellings' Eric Rindal 'The effects of repeated lying on memory' Adele Quigley-McBride 'Contextual bias influences forensic testing procedures'	John Sutton 'Memory, performance, and the arts' S1: Kath Bicknell S2: Evelyn Tribble S3: Kate Stevens S4: Karen Pearman	Jessecae Marsh and Andrew Shulman 'Looking for essences: The influence of essentialist beliefs on real world reasoning' S1: Andrew Shulman S2: Jessecae Marsh S3: John Coley S4: Ian Dar-Nimrod	Penny Van Bergen 'Memory in educational contexts: New directions' S1: Shirley Wyver S2: Patricia Bauer S3: Penny Van Bergen S4: Vana Webster
2:15pm						
2:30pm						
2:45pm						

3:00pm	S5: Muireann Irish	Michelle Arnold 'Equal, but not the same: The effect of context manipulations on the strategic regulation of accuracy'	S5: William Thompson	S5: Karl Rosengren	S5: Amael Arguel
3:15pm	S6: Thomas Morris	Robert Nash 'Public attitudes on the ethics of planting false memories to motivate healthy behavior'	Steffen Herff 'Memory for melody: Investigating the link between prior experience, perception, and subsequent formation of memory representations'	Brittanny Cardwell 'Religious people don't distinguish between good and bad reasons for their beliefs'	S6: Karen Salmon
3:30pm	Stephanie Wong 'Motivated to remember? Modulation of value-based learning and memory in dementia'	Camille Weinsheimer 'Perceptions of credibility for memory reports of single and repeated events'	David Z. Hambrick 'Acquiring skill in music: Does mindset matter?'	Brendan Gaesser 'Imagining a brighter future: Applying episodic future thinking to foster charitable donations'	Martine Powell 'A study of children's perceptions and responses to open and closed questions'
3:45pm	Anne-Laure Gilet 'False memories in Alzheimer's Disease: Is the activation of the critical lures preserved?'	Rebecca Wheeler 'The effectiveness of self-generated retrieval cues in facilitating eyewitness recall'	Miriam Rainsford 'Unconscious plagiarism in music composition: Elaboration by imagery and improvement increases source confusion'	Frank Drews 'Evaluation and redesign of health care icons'	Meaghan Danby 'Differential effects of general versus cued invitations on children's reports of a repeated event'
4:00pm	Tiger Aspell 'Cognitive reserve and delayed Alzheimer's Disease'	Carolyn Semmler 'Using a measurement model to understand eyewitness identification'	Diane Nayda 'The cost of eternal vigilance: Can meta-awareness and metacognition in mind-wandering explain trauma-related intrusive cognitions?'	Ryan Burnell 'Medical practitioners are susceptible to misleading information about their interactions with patients'	Penny Van Bergen 'The effect of a short reminiscing intervention on mothers' preferences for mental state talk'
4:20-5:50pm	Poster session	Poster session	Poster session	Poster session	Poster session
6:00-8:30pm	Nerd Nite	Nerd Nite	Nerd Nite	Nerd Nite	Nerd Nite

Thursday 5th

Time	Event	Room 1	Room 2	Room 3	Room 4	Room 5
9:00am	Keynote	Keynote: Qi Wang	'Culturally motivated remembering'	Keynote	Keynote	Keynote
10:00am	Break	Break	Break	Break	Break	Break
10:30am	Symposia and papers	<p>Celia Harris 'Beyond inhibition: Effects of collaborative remembering on agreement, meaning-making, and memory qualities' S1: Ira Hyman</p> <p>S2: Annelies Vredevelde</p> <p>S3: Monisha Pasupathi</p> <p>S4: Celia Harris</p> <p>S5: Amanda Barnier</p>	<p>Stephan Lewandowsky 'Decision making under uncertainty: The case of climate change' S1: Stephan Lewandowsky</p> <p>S2: Brett Hayes</p> <p>S3: Timothy Ballard</p> <p>S4: David Mercer</p> <p>David Moreau 'When power is not enough: Considering pre-study probability in the evaluation of scientific evidence'</p>	<p>Helen Paterson 'Current investigations in immediate eyewitness recall' S1: Celine van Golde</p> <p>S2: Curie Suk</p> <p>S3: Anita van Zwieten</p> <p>S4: Sarah Deck</p> <p>S5: Helen Paterson</p>	<p>Guillermo Campitelli 'The relationship between general cognitive abilities and chess expertise as a function of age: A mathematical simulation and applications'</p> <p>Andrew Conway 'Dual mechanisms of cognitive control: Experimentally induced shifts in proactive and reactive control in the AX-CPT'</p> <p>Katharina Foerster 'General cognitive deficits impair social cognition'</p> <p>Matthew Palmer 'The effect of true and false feedback on the detection of targets in a low-prevalence visual search task'</p> <p>Rachel Dianiska 'Memory load at encoding as a moderator of the negation effect'</p>	<p>James Dunn 'Facing a difficult task: Integrating image variation to find faces in crowds'</p> <p>Nina Tupper 'Context cues enhance face recognition performance: Can we stretch the effect?'</p> <p>Avraham Levi 'A comparison between the British video lineup and the 48-person lineup'</p> <p>Ryan Fitzgerald 'Was the benefit of high similarity lineup fillers a methodological artefact?'</p> <p>Daniel Bernstein 'Non-probative photos and the backfire effect'</p>
10:45am						
11:00am						
11:15am						
11:30am						

11:45am		Cassandra Burton-Wood 'What we want to forget'	Joanne Allen 'Predictors of perceived disaster impact in persons affected by the 2010-2011 Canterbury earthquakes: Pre and post disaster profiles'	Grace Denham 'Pseudo-suspects' beliefs about the likelihood of being identified in two different eyewitness identification procedures'	Ben Dyson 'Behavioural and neural adaptation of win-stay but not lose-shift strategies as a function of outcome value'	Rebecca Wheeler 'Practitioner views on obtaining information from reluctant witnesses'
12:00pm		Catherine Browning 'Collaboration in prospective memory: Are couples better than strangers?'	Rachel Dryer 'Cross-cultural examination of beliefs about cause and treatment for Bulimia Nervosa in Japanese and Australian women.'	Nicholas Formosa 'Examining misinformation and salience effects for memory of criminal conversations'	Mark Antoniou 'Processing indexical speech information requires working memory resources'	Dian Dia-an Muniroh 'Cognitive interview in Indonesian: When retrieval cues might not be enough'
12:15pm		Amanda Selwood 'Collaborative processes in autobiographical memory recall by pairs of strangers, friends, and siblings'	Seema Clifasefi 'First alcohol memories of individuals with the lived experience of homelessness and alcohol use problems'	Sophie Nightingale 'Does taking photos affect what we remember?'	Deanne Green 'The influence of primed positive and negative emotion on boundary errors for neutral images'	Chris Meissner 'Science-based methods of interrogation: A training evaluation and field assessment'
12:30pm	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
12:30-1.15pm		Student Caucus Meeting and Elections	Open to all Students			
1:15-2:00pm		Business Meeting	Open to all Members			
2:00pm	Symposia and papers	Neil Brewer 'Eyewitness identification's young scientists' S1: Nina Tupper S2: Nathalie Brackmann	Emmanuel Manalo & Chris Sheppard 'Understanding student text and diagrammatic representations of what they have learned: What gets represented, how, and why?'	Oliver Luminet 'New issues and new perspectives on flashbulb memory research' S1: Jennifer M. Talarico S2: Charles B. Stone	Stephan Lewandowsky 'Motivated rejection of (climate) science: Causes, tools and effects' S1: Ullrich Ecker S2: John Cook	Elizabeth Austin 'Pointing the way forward: Preschoolers' and adults' comprehension of route direction information' Osman Kingo 'Developmental differences in playing Concentration'
2:15pm						

2:30pm	S3: Carmen Lucas	Katinka Dijkstra 'Positivity bias and the role of documentation and age in autobiographical memory recall'	S3: Oliver Luminet	S3: Matthew Hornsey	Ian Mundy 'Exploring the reliability and applicability of processing fluency effects in an educational context'
2:45pm	S4: Mario Baldassari	Jeffrey Foster 'Reminiscence bumps in social media: A data-analytic approach'	S4: Qi Wang	S4: Lawrence Hamilton	Catherine Broomfield 'Overcoming the distance in statistical teaching: The effect of instructional control mode on learning accuracy and confidence in online environments'
3:00pm	S5: Kaila Bruer	Eryn Newman 'Poor sound, poor research: How the audio quality of conference talks and interviews affects research evaluation'	Norman Brown 'Autobiographical memories: (Mostly) selfless and (almost always) vivid'	S5: Stephan Lewandowsky	Yee-San Teoh 'Interviewing Taiwanese children about a staged event: A comparison of drawing and verbal questioning methods'
3:15pm		Stephanie Wong 'Should I trust you? Learning and memory of socially relevant information in dementia'	Steve Janssen 'Support for emotion regulation as the fourth function of autobiographical memory'	Helen Jones 'Detecting deceptive emails in a simulated office environment: The dangers of distraction'	Alex Hill 'Dolls, drawings and diagrams: Interviewers' perspectives on visual aids in child witness interviews'
3:30pm		Melissa Colloff 'Eyewitness identification across the adult lifespan'	Veronika Nourkova 'Emotional profile of autobiographical memory is prone to family transmission and imitates cultural life script'	Glen Bodner 'Predicting beauty ratings and preference reversals for representational and abstract paintings'	Caroline Moul 'Attentional processing of stimulus-response-outcome chains as a function of psychopathic personality traits'
3:45-4:00pm		Break	Break	Break	Break
4:00-5:00pm		Keynote: Neil Brewer	Keynote	Keynote	Keynote
7:00pm-late		Conference Dinner	Conference Dinner	Conference Dinner	Conference Dinner

Friday 6th

Time	Event	Room 1	Room 2	Room 3	Room 4	Room 5
9:00am	Symposia and papers	Jason Chan 'The light and dark sides of memory retrieval: Implications for education and the law' (ECR Award Talk)	Elaine Niven 'Memory for events: Recall of real and virtual experiences'	Lauren Monds 'Personality and memory conformity'	Eva Kemps 'The role of expectations in the effect of food cue exposure on consumption in restrained eaters'	Deirdre Brown 'Developmental reversals in children's false memories for experienced events'
9:15am		Jennifer Beaudry 'Benefits of video-recorded identification evidence: What are the boundary conditions?'	Andrew Clark 'Social feedback results in omissions but not nonbelieved memories'	Naomi Kakoschke 'The effect of modifying automatic and controlled processes on unhealthy eating behaviour'	Kimberley Wake 'Ease of retrieval effects in the recall of childhood memories'	
9:30am		Andrew C. Butler 'Applying the science of learning to education: Small changes can make a big difference' (ECR Award Talk)	Peggy St. Jacques 'Using virtual reality to form memories for events from multiple visual perspectives'	Ashley Adolphe 'Investigating the effects of mental memory checking on memory distrust and its influence on acceptance of post-event information'	Priyali Rajagopal 'Remembering the best of times or the worst of times? The moderating role of brand commitment on false product experience memories'	Susan Benz 'Testing the implicit rapid processing of learned information in older adults'
9:45am		Feni Kontogianni 'Introducing a new mnemonic to the timeline technique: Retrieval support for sub-optimally encoded events'	Alexander Jay 'Collective wisdom or collaborative memory failure: Socially shared retrieval induced forgetting as a result of jury deliberations'	Mircea Zloteanu 'Passive lie detection': The effect of open and closed body postures on accuracy'	Robbie Taylor 'The secret life of passwords'	
10:00am	Break	Break	Break	Break	Break	Break
10:30am	Symposia and papers	Alan Scoboria 'Surprising cognitive errors and memory' S1: Henry Otgaar	Ullrich Ecker 'The continued-influence effect of misinformation' S1: Ullrich Ecker	Sophie Nightingale 'Visual cognition in real-life contexts' S1: Sophie Nightingale	Mevagh Sanson 'The role of expectancies in the effects of trigger warnings'	Kristy Martire 'Presuming innocence or assuming impartiality?'

10:45am		S2: Alan Scoboria	S2: Patrick Rich	S2: Steven Most	Victoria Bridgland 'Is forewarned always forearmed? Effects of trigger warnings on reactions to negative and neutrally valenced stimuli'	Glenys Holt 'Downplaying crime severity amplifies perceptions of guilt'
11:00am		S3: Ira E. Hyman, Jr.	S3: Panayiota Kendeou	S3: Jodi Sita	Sasha Nahleen 'Repeated exposure to misleading post-event information after a traumatic event: The effects on memory '	Shiri Portnoy 'Strategic regulation and reporting in the alibis of innocent and guilty suspects'
11:15am		S4: Daniel Bernstein	S4: David Rapp	S4: Megan Willis	Ella Moeck 'The influence of lateralized processing on involuntary memories of traumatic images'	William Crozier 'Automatically guilty: Associations between evidence and guilt'
11:30am		S5: Alan Scoboria	S5: Stephan Lewandowsky	S5: David White	Stefanie Sharman 'Comparing the cognitive interview to a standard method for witnesses of sexual assault'	Hayley Cullen 'Crime obviousness and awareness: Everyday distractions may reduce awareness even for obvious crime'
11:45am		Peter Allred 'Exploring the effectiveness of decision-making training: Can you learn to avoid the conjunction fallacy?'	Ayanna Thomas 'The good and the bad about stress and memory'	Dawn-Leah McDonald 'The self-deceptive eyewitness'	Nina Westera 'Lawyers examining child sexual abuse complainants about inconsistent testimony'	Beth Richardson 'Training the indirect detection of malicious intent'
12:00pm		Annemarie Zijlema 'What comes to mind when being triggered by personal items in the home? A qualitative exploration of cuing responses'	John Shaw 'The impact of sleep on the binding of objects, actions, and scenes in visual long-term memory'	James Sauer 'Appearance change effects on eyewitness recognition and decision-making'	Reneau Kennedy 'Expert witness testimony in delayed disclosure child abuse cases'	Yee-San Teoh 'Judges' perceptions of eyewitnesses, eyewitness testimony, and suspect identification in Taiwan'

12:15pm		Roy Groncki 'Moving beyond the dichotomy: Development of a decision process scale for eyewitnesses'	Mickael Bojzenko 'Motivated cognition in legal decision making: Exploring factors driving preventative detention'	Ruby Brown 'Yes officer that's my statement: Choice blindness in witness statements and the effect of recall modality'	Andrea Taylor 'Scarred for life? Memories for physically scarring childhood events'	Lara Warmelink 'Positivity bias in lies'
12:30pm	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
12:30pm		From Lab to Real World: In Conversation with Research Partners				
1:30pm	Symposia and papers	William Crozier 'Considering the evidence: Factors that influence memory and perceptions in police investigations' S1: Divya Sukumar	Aaron Drummond 'Negative psychological consequences of video game use? Evidence that statistical, methodological and moderating factors influence typical post-game effects.' S1: Christopher Ferguson	Theodore Waters 'Autobiographical narrative coherence: Structure, style, and associations with well-being' S1: Theodore Waters	Laure Brimbal 'Socialization in job interview: Does lying or blunt honesty get the job?'	Mandy Visser 'The effect of ageing on the expression and perception of cues for uncertainty'
1:45pm		S2: William Crozier	S2: Peter Cannon	S2: Christin Koeber	Gary Dalton 'Person description information: An examination of frontline communication'	Sarah Barber 'Testing the efficacy of value affirmations in eliminating age-based stereotype threat'
2:00pm		S3: Timothy Luke	S3: Aaron Drummond	S3: Matthew Graci	Janie Busby Grant 'Features of episodic foresight that affect decision making'	Priyali Rajagopal 'Remembering better or remembering worse: Age effects on false memories'

2:15pm		S4: Kristyn Jones	S4: James Sauer	S4: Elaine Reese	Leora Dahl 'The social media alibi: Does the type of crime affect the believability of the alibi?'	Liangzi Shi 'On the transitional character of life-script and script-divergent events: A comparison of beliefs vs. experience'
2:30-2:45pm	Break	Break	Break	Break	Break	Break
2:45-3:45pm	Keynote	Keynote: Maryanne Garry	'The end of facts'	Keynote	Keynote	Keynote
3:45-4:30pm	Closing Ceremony	Closing Ceremony	Closing Ceremony	Closing Ceremony	Closing Ceremony	Closing Ceremony
4:45pm	Wildlife Zoo	Wildlife Zoo	Wildlife Zoo	Wildlife Zoo	Wildlife Zoo	Wildlife Zoo

8:00am, Tuesday January 3

Tuesday January 3

8:00am – 12:00pm

Meeting of Governing Board
The Grandstand

9:00am – 12:00pm

Workshop
Functional MRI: Basics to breakthroughs
Donna Rose Addis
New Law Annexe, Room 442

12:30pm – 3:00pm

Workshop
No replication crisis here! Learn to do open, reproducible science
Alex Holcombe
New Law Annexe, Room 442

2:00 – 3:00pm

Student Meet and Greet
Taste Baguette

12:00pm – 5:00pm

Registration
Eastern Avenue Auditorium

3:00pm – 5:00pm

BBQ Reception
Botany Lawn (The Grandstand if raining)

5:00pm – 6:00pm

Opening Ceremony
Eastern Avenue Auditorium

6:00pm – 7:30pm

Public Lecture – Eastern Avenue Auditorium
The Fiction of Memory
Elizabeth Loftus

For several decades, I have been manufacturing memories in unsuspecting minds. Sometimes this involves changing details of events that someone actually experienced. Other times it involves planting entire memories for events that never happened – ‘rich false memories’. People can be led to believe that they did things that would have been rather implausible. They can also be led to falsely believe that they had experiences that would have been emotional or traumatic had they actually happened.

6:30am, Wednesday January 4

Wednesday January 4

6:30am – 9:30am
Breakfast at Bondi

9:30am – 10:30am

Keynote:

Room 101

Intrusive memories: Phenomenology, correlates, and causes
 Richard Bryant

Intrusive memories are common in many emotional states, and pivotal in many psychological disorders. Despite the centrality of intrusive memories, knowledge about this form of memory is under-developed. This review will initially provide an outline of the parameters and nature of intrusive memories, including its central role in psychological disorders. Recent work on attempts to map the neurobiological correlates of intrusive memories are then reviewed. It will then focus on a series of experimental studies that investigate causative factors in the occurrence of intrusions. These experiments encompass a diverse range of paradigms, including the roles of genetic factors, stress hormones, sex hormones, imagery ability, and memory reconsolidation. The current evidence points to the conclusion that if we are to better understand intrusive memories, there is a need to accommodate multiple paradigms and theoretical frameworks.

10:30am – 11:00am Break

11:00am – 12:30pm

Symposium

Room 101

Factors that influence monitoring of misinformation

Katya Numbers

When we reminisce about an experienced event, we often need to reconcile contradictory information from different sources. Specifically, when inaccurate post-event details are encountered, they can alter our memory of what occurred, a phenomenon known as the misinformation effect. Certain item-based and person-based manipulations can influence source monitoring, which can later lead to either inflations or reductions in the misinformation effect. This symposium will broadly

encompass factors that might enhance or attenuate the misinformation effect, including source credibility and accuracy, misinformation item type and presentation order, and other manipulations that may enhance conflict detection.

Biased eyewitnesses' acceptance of misinformation

Robert Michael, Maryanne Garry

Eyewitness confidence is persuasive, even when an eyewitness is wrong. We recently found that simply changing the order of questions put to eyewitnesses can hijack their confidence. But does that contaminated

confidence make eyewitnesses less critical of misleading post-event information? To answer that question, subjects watched a simulated crime before reading a report containing misleading details, and then took a memory test. The results highlight the need to consider factors that seem trivial, like question order, when interviewing eyewitnesses.

The confirmatory interviewer feedback effect and the monitoring of uncertainty

Maria Zaragoza, Patrick Rich

Confirmatory interviewer feedback provided in the context of suggestive forensic interviews can distort what witness's report, increase witness confidence in their mistaken testimony, increase the perceived credibility of their erroneous reports, and increase false memory for events that were never witnessed. We provide evidence that confirmatory feedback leads witnesses to discount their uncertainty in false and suggested information, thus predisposing them to memory distortions.

Positive and negative age stereotypes interact with partner accuracy to influence false memories

Katya Numbers, Amanda Barnier

The perceived credibility of a source plays an important role in the transmission of misinformation. In particular, less credible sources may function as an implicit warning, increasing misinformation resistance. Past

Paper

The role of working memory capacity and cognitive load in deception

Keith A. Hutchison, Ted Maldonado

This study examined the role of working memory capacity (WMC) in both the production and detection of deception. Prior to the experiment, participants truthfully answered 64 simple 1-2 word-answer questions and completed tasks designed to measure WMC. Participants then took turns as speaker and detector. Speakers verbally responded to questions truthfully or deceitfully based on a

research has suggested that older adults may be viewed as a less credible source of information due to beliefs about their memory abilities. We examined whether actual source accuracy (i.e., the number of false items suggested by a confederate) interacted with perceived source credibility (i.e., the age and background information provided about the confederate) to reduce false memories when misinformation was provided in a social context.

Supplementary misinformation and initial testing can enhance suggestibility

Sara Davis, Chad Fernandez, Jason Chan

Post-event misinformation can either be contradictory (i.e., conflict with an item/event that was witnessed) or supplementary (i.e., suggested in addition to the item/event that was witnessed), but little research has systematically examined this variable. In the present study, we investigated the influence of initial testing on participants' susceptibility to contradictory and supplementary misinformation. In two experiments, we demonstrated that supplementary misinformation led to greater suggestibility than contradictory.

Discussant Elizabeth Loftus

Distinguished Professor Elizabeth Loftus will act as our final discussion moderator. She will field questions from the audience and discuss common themes presented during the talks.

randomly-determined sequence while the detector guessed the veridicality of these responses. For each block, the speaker was placed under either low or high cognitive load using a simple or complex spatial memory task. When under high load, high WMC individuals were more convincing liars than low WMC individuals. In addition, irrespective of believability, span correlated with general ability to remember the truthful answer, but not with the tendency to produce a lie when required. Future directions of this research and Implications for police interrogations and future directions will be discussed.

Symposium**Room 100*****Cognitive and memory processes in clinical disorders****Richard Bryant*

It is well-established that individuals with clinical disorders are characterised by deficits in cognitive and memory processes. This symposium brings together investigators whose experimental work with clinical and non-clinical populations seeks to understand how such impairments contribute to the emergence and persistence of clinical conditions. The presenters will discuss a range of cognitive impairments (e.g., poor attention) and maladaptive processes (e.g., rumination), and present findings that demonstrate their role in an array of disorders, including PTSD, depression, and hoarding disorder. Each presenter will explore the ways in which their results speak to new directions in the treatment of clinical conditions.

Perceived control and distress tolerance in Posttraumatic Stress**Richard Bryant, Lisa Hancock**

Despite much evidence concerning the importance of control over stressors in animal models of adaptation to stress, there is a dearth of experimental evidence for the role of controllability in posttraumatic stress disorder (PTSD). This study investigated whether perceived control over aversive stimuli influenced subsequent distress tolerance in a female community sample with and without PTSD symptomatology. Participants (N = 145) were randomized to receive instructions indicating either controllable or uncontrollable offset of aversive, positive and neutral images; despite this perception, the actual duration of presentations was standardized in both conditions. Participants subsequently completed an emotional distress tolerance task.

Electrophysiological indices of error-monitoring and inattention in individuals with hoarding disorder**Peter A. Baldwin, Thomas, J. Whitford, Jessica R. Grisham**

Error-monitoring and hemodynamic activity in the anterior cingulate appears to be abnormal in hoarding individuals, with some evidence that these processes are modulated by object-related decision-making. Additionally, hoarding individuals report and demonstrate poor attention, which may also impact their ability to make decisions about their belongings. In this study, we investigated two electrophysiological indices of error-monitoring and attention in a group of hoarding individuals: the error-related negativity (ERN), and the theta/beta ratio (THBR). Results yielded no evidence of abnormal THBR, however a pattern of attenuated ERN emerged, which reflects other electrophysiological data from hoarding samples.

The impact of rumination on decision-making in Depression**Shanta Dey, Michelle L. Moulds, Ben R. Newell**

Deficits in decision-making are common in depression, yet minimal research has addressed this topic. We compared the decision-making of high and low dysphoric participants and found that high dysphoric individuals experienced more decisional stress, decisional avoidance, decisional hyper-vigilance, and lower levels of decisional self-esteem. In a subsequent study we demonstrated that high dysphoric participants who underwent an abstract thinking induction took longer to make a decision, and experienced more decisional stress and indecision than those who underwent a concrete thinking induction. These findings suggest that abstract rumination, a common style of thinking in depression, could contribute to decision-making difficulties.

Negative emotional events that people ruminate about feel closer in time**Ewa Siedlecka**, Miriam M. Capper, Thomas F. Denson

Rumination is intrusive, perseverative cognition. One hypothesized consequence of ruminating about negative emotional events is that the events feel as though they happened “just yesterday”. We tested whether participants who recalled (Studies 1 and 2) or wrote about (Study 3) negative emotional events, and ruminated about them, felt the event to be closer in time compared to a control. Results showed that ruminating about negative events in the last year made these past events feel as though they happened more recently. These findings have implications for understanding the role of emotional rumination on memory processes in clinical populations.

Paper**Imagining trauma: Memory amplification and the role of elaborative cognitions****Jacinta Oulton**, Deryn Strange, Reginald Nixon, Melanie Takarangi

Trauma victims often remember their experience as being more traumatic over time: the “memory amplification effect”. This effect is associated with re-experiencing symptoms. We also know people with PTSD experience elaborative intrusions: cognitions about extensions of the trauma that never occurred. We investigated whether intrusion

Indirect consequences of thought suppression**Paula Hertel**, Nilly Mor, Amaris Maydon, Ashley Oglivey

Suppression-induced forgetting (SIF) is a frequently replicated finding obtained from the think/no-think (TNT) paradigm. Past evidence suggests that SIF is related to measures of clinical interest, such as diagnosis of depression, scores on depression inventories, and rumination scores; depressed and ruminative individuals are less successful. Our new evidence extends this rumination finding to indirect tests of memory. Instead of measuring effects on free recall, we show that suppressed targets distract ruminators in a later judgment task when they are presented as flankers. We also discuss rumination-related effects of suppression on a test of free association.

elaboration affects memory amplification. Participants viewed traumatic photographs and recorded intrusions; some participants also elaborated on their intrusions. We assessed memory twice, 24-hours apart. Elaboration participants experienced fewer intrusions and showed less memory amplification than controls. Our findings suggest that elaboration enhanced conceptual processing of the trauma, therefore reducing intrusions and opportunities for reality-monitoring errors.

Symposium**Room 102*****The new horizon of foresight: From philosophy to applied settings****Aline Cordonnier*

Being able to imagine, plan or project oneself into the future presents many advantages and closely relates to memory. Throughout this symposium, researchers from diverse field will examine the capacity to attend to the future in multiple ways. Presentations will include philosophical and empirical reflections on qualitative and quantitative

differences between past and future thinking, considerations of the role of semantic memory and executive functions in foresight, as well as investigations of disruptions to the capacity to imagine one’s future in opiate and cannabis users. Together, these talks will provide insight into the construction and the role of future thoughts.

Mental time travel: The continuism-discontinuism debate

Kourken Michaelian, Denis Perrin

Mental time travel research suggests that the only qualitative difference between episodic memory and future-oriented mental time travel is their distinct temporal orientations. Is this really the case? Continuists defend an affirmative answer to the question; discontinuists defend a negative answer. A review of empirical evidence and philosophical arguments suggests that the continuism-discontinuism debate ultimately turns on the correctness of the causal theory of memory: if the theory is correct, discontinuism is correct; if the theory is incorrect, continuism is correct. It remains to be seen whether the causal theory itself is compatible with mental time travel research.

Beyond temporal orientation: Examining past and future thinking through counterfactual lenses

Aline Cordonnier, Amanda Barnier, John Sutton

Episodic memory and episodic foresight have often been presented as the two main types of autobiographical thinking, mostly distinguished by their temporal orientation. However, we suggest that some of their differences might be better explained by their relationship with reality. To examine this possibility, we use counterfactual thinking as a valuable point of comparison to both types of autobiographical thinking, as it shares the past orientation of memories but the hypothetical nature of future thoughts. We will present results from multiple studies investigating the phenomenology, linguistic style and perceived plausibility of memories, counterfactual thoughts and imagined future events.

Episodic and semantic memory interactions in the service of future thinking – insights from the dementias

Muireann Irish, Nadene Dermody, John R. Hodges, Olivier Piguet

The ability to envisage personally relevant future events represents an incredibly sophisticated cognitive endeavour which is

intimately linked to episodic memory integrity. Recent studies, however, reveal a prominent role for semantic memory in mediating future thinking. Moreover, relatively little is known regarding the cognitive mechanisms underpinning the capacity to envisage non-personal future occurrences, or semantic future thinking. Here, I will present recent findings from studies of episodic and semantic future thinking in Alzheimer's disease and semantic dementia, highlighting the dynamic interplay between the episodic and semantic memory systems in supporting complex acts of prospection.

Reduced specificity of imagined future events in Depression

Donna Rose Addis, Sylvia Hach, Chris Murray, Lynette J. Tippett

The tendency to generate overgeneral past or future events is characteristic of individuals with depression. Research has focused on the contribution of rumination and avoidance to this overgenerality, few studies examine the role of executive functions or neural changes in this phenomenon. In this talk, I will describe our recent work showing that the specificity of future events is differentially reduced in depression, that strategic retrieval abilities are particularly important when generating specific future events, and that when imagining the future, the activation and connectivity of the medial temporal lobes is altered in depression.

Long term opiate users are impaired in applying episodic foresight

Peter G. Rendell, Gill Terrett, Amanda Lyons, Julie D. Henry, Clare Ryrie, Thomas Suddendorf

Previous research has shown that opiate users have deficits on the aspect of episodic foresight that involves imagining oneself experiencing the future. We conducted the first study to assess opiate users on the applied aspect of episodic foresight, the ability to act in the present in anticipation of future needs. We compared 33 long-term opiate users and 34 controls. Relative to controls, the opiate users displayed

significant impairment on two behavioural measures of the applied aspects of episodic foresight. The difficulties in imagining the future and acting with the future in mind have implications for interventions with opiate users.

Deficits of episodic foresight identified in regular, but not recreational, cannabis smokers

Kimberly Mercuri, Gill Terrett, Julie D. Henry, H. Valerie Curran, Phoebe E. Bailey, Peter G. Rendell

Long term opiate use has been recently associated with deficits of episodic foresight.

However there is no evidence to suggest that this impairment extends to other psychoactive substances. We conducted the first study to assess cannabis users on this capacity to imagine oneself experiencing the future. We compared 34 regular cannabis smokers, 23 recreational smokers, and 57 substance naive controls. Relative to controls and recreational smokers, the regular smokers displayed significant impairment on a behavioural measure of episodic foresight. The difficulties in imagining the future may have significant functional, and therapeutic implications for regular smokers.

Symposium

Room 105

Facing the future: Understanding human and machine performance in face identification systems

David White, Jonathon Phillips

In forensic and security settings, faces are now identified by a combination of human viewers and machine-based systems. This modern approach raises new questions about how strengths of humans and machines can be combined to achieve optimum accuracy, and carries important implications for face identification in security checks, forensic investigations and criminal trials. This symposium examines the abilities of novices, experts and state-of-the-art machine systems to improve face identification in these applied settings, and to develop theoretical knowledge of perceptual and cognitive processes supporting performance. We hope that this interdisciplinary focus will help to shape future research in this field.

Face identification from degraded images

Kay L. Ritchie, Robin S. S. Kramer, Eilidh Noyes, Rob Jenkins, David White, A. Mike Burton

Low quality images are problematic for face identification systems in forensic settings, such as identifying faces from CCTV images. Previous studies have shown that an average image comprising multiple images of the

same person leads to higher accuracy in face identification than single images. Here we test the average advantage with pixelated images in human face matching and automatic face recognition. We find a decrease in face identification accuracy for pixelated images, which is overcome by averaging those images together. We suggest that averaging together multiple poor quality images can produce a better image for use with face identification systems.

Challenging imagery: Contrasting human facial image comparison and facial recognition algorithm performance

Rebecca Heyer, Hermine Lee, Joseph Calleja, Linna Vu, Monique Kardos, Katherine Hanton, Veneta Macleod, Carolyn Semmler

It is well known that a range of variables impact on facial recognition algorithm performance, including pose, illumination, expression, and appearance changes, however very little work has been done to quantify the impact of such variables on human facial image comparison performance. This paper provides an overview of several recent studies we have conducted to understand the impact of challenging imagery on human facial image comparison. Challenging variables of interest studied include glasses, plastic surgery, image quality and restoration, and

manipulated facial imagery. Results from human studies will be contrasted with algorithm results for a system perspective on performance.

Combating passport fraud: Training and awareness of the morphed passport photo problem eliminates fraudsters advantage
David Robertson, Mike Burton

Fraudulent passports provide a serious challenge to border security. Identity fraudsters are attempting to increase their success rate by using a face morph containing characteristics of both the genuine document holder and the unlawful applicant. It is not clear whether these morphs could mislead passport office staff, border officials or face recognition algorithms (e.g. e-Gates). In a series of experiments, we tested whether human and machine recognition systems would accept morphed images as genuine target matches. We observed 70% morph acceptance rates among humans with no knowledge of the morph fraud problem, but training humans and using machine systems effectively solved this problem.

The impact of ageing on facial comparisons with images of children conducted by humans and automated systems
Dana Michalski, Brett McLindin, Rebecca Heyer, Carolyn Semmler

Ageing is one of the main variables known to affect facial comparison performance conducted by both humans and automated systems. Ageing is expected to affect performance even more so with images of children due to the extensive amount of growth occurring in childhood. Despite the critical operational applications that require facial comparisons to be conducted with images of children, research in this area is scarce. This presentation will discuss the findings from a large scale evaluation conducted with both humans and automated systems to provide insight into the impact

that ageing has on facial comparisons with images of children.

Perceptual expertise in forensic facial examination

David White, P. Jonathon Phillips, Alice Towler, Richard Kemp, Matthew Hill, Carina A. Hahn, Alice O'Toole

Facial forensic examiners have many years experience comparing face images for law enforcement and government agencies, and their identification decisions can affect the course and outcome of criminal investigations and convictions. In this talk I present the first systematic tests of facial examiners' accuracy in face matching tasks. Results show superior accuracy in forensic examiners compared to both novices and computer algorithms. Further, qualitative differences between examiner and novice performance point to differences in perceptual processing. Specifically, their high levels of accuracy appear to be supported by careful analysis of individual facial features.

Face recognition: Humans vs. machine
P. Jonathon Phillips, Alice O'Toole

Over the last decade, NIST has systematically compared human and computer performance in tandem with competitions for face recognition algorithms. These comparisons provide a detailed look at human versus machine performance across multiple face recognition tasks. Although machines surpass humans with illumination-controlled frontal faces; when multiple identity cues, such as face, body, and motion, are simultaneously available humans fare better than machines. Humans also excel in comparing faces across changes in illumination and pose. Recent research shows that individual humans vary widely in face recognition skill with the best humans (forensic examiners) providing a gold standard for performance.

Symposium**Room 107*****Parents' contribution to constructing narrative identity****Christin Kæber*

To date, the focus of autobiographical memory and narrative research has been on how individuals remember their personal past and compose a coherent narrative of their own identity. Yet, constructing narrative identity is not done in isolation, but in the context of significant relationships, especially the parental relationship. Because parents are typically the first persons who provide shared reminiscing and help to narrate the personal past, they contribute to identity and typically remain part of it. Therefore, this symposium investigates the role of parents for autobiographical memory and narrative identity from different perspectives and throughout the life span.

Maternal elaborative reminiscing fosters adolescents' narrative identity

Claire Mitchell, Hadar Hazan, Lucy Macfarlane, Helena McAnally, **Elaine Reese**

Mothers who reminisce elaboratively have young children with better language and memory skills. We present a longitudinal follow-up in adolescence of a reminiscing intervention in which a sample of 115 mothers and their 1-1/2 year old children were randomly assigned to an elaborative reminiscing or control condition. At age 3-1/2 (n = 100), children whose mothers were in the elaborative reminiscing condition told richer and more accurate narratives to a researcher than children in the control group. At age 11, adolescents of trained mothers told low-point narratives with significantly greater thematic coherence. Maternal reminiscing is important for adolescent narrative identity.

Parent-adolescent reminiscing and youth rumination

Mary Dewhirst, Karen Salmon, Garth Fletcher

Parent-child reminiscing conversations play a key role in young people's development.

Here, we address two important questions; first, we ask how these conversations differ in the context of high (vs low) levels of adolescent rumination. Second, we ask how the qualities of reminiscing conversations relate to later adolescent psychological well-being or psychopathology. Drawing on longitudinal and cross-sectional data, we compare how emotions, conversational quality and style are managed in reminiscing conversations between mothers and adolescents with higher or lower rumination. Our findings shed light on the role of parent-child reminiscing conversations in the development and maintenance of psychopathology in adolescence.

Mothers' help in developing their children's self-concept

Magdalena Kuhn, Tilmann Habermas

Mothers scaffold and help to understand their children's past, when reminiscing together (Fivush, Haden, & Reese, 2006). Here we broaden this focus by scrutinizing whether mothers scaffold their children in discovering their own personality characteristics. Sixteen children aging 8 to 20 years told their lives both individually and jointly with their mothers. Narratives were coded for children's personality traits and their narrative interactional context. Children mention increasingly own personality characteristics, thereby supported by the mothers' scaffolding in earlier ages and mothers' attributions and conclusions in later ages. Results point to the mother's role in developing one's self-concept.

Mothers' and adolescents' use of internal state language in individual and joint reminiscing

Alice Graneist, Tilmann Habermas

The purpose of this study was to test whether there is a family style in the use of internal state language in autobiographical narratives (1) in adolescence and (2) in independently narrated stories. Sixty mother-adolescent dyads provided individually and co-narrated autobiographical

emotion narratives. Internal state language use did not correlate between independently narrated stories of mothers and adolescents. Only when co-narrating a shared experience, the use of internal state language correlated between mothers and their children. Our findings indicate that in adolescence similarities in internal state language exclusively appear in co-narrations, which contradicts the assumption of a family style.

Relations between attachment security and life story themes

Theodore E. A. Waters, Yoojin Lee

McAdams (1993) proposed that experience in early attachment relationships is an important contributing factor in how individuals interpret and make meaning from their experiences. To test this hypothesis we examined associations between attachment representations and themes of redemption, contamination, agency, and communion in the life stories of 60 emerging adults. Preliminary results supported McAdams' hypothesis with attachment security significantly predicting higher levels of

redemption and lower levels of contamination in life stories. Implications for developmental and personality theories of autobiographical memory and meaning making are discussed.

Parents' traces in life: When and how parents are presented in life narratives

Christin Kœber, Tilmann Habermas

Traditionally, research on narrative identity investigated in life stories how people portray themselves, but people also mention their significant others, especially their parents. Therefore this study examined longitudinally parents' importance in life narratives of a lifespan sample aging 8 to 69. Results revealed that at all ages people dedicate a substantial part of their life narratives to their parents. With increasing age, individuals evaluate their parents in an increasingly differentiated fashion, perceive parents increasingly as individuals beyond the nurturing role, and think about their transferred values until late life. This study emphasizes the lifelong role of parents in narrative identity.

12:30pm – 2:00pm

Lunch

Student Lunch with Experts

Room 101

2:00pm – 4:30pm

Symposium

Room 101

Autobiographical memory in health and disease

Muireann Irish

Autobiographical memory represents one of the most sophisticated expressions of human memory, allowing us to recollect richly detailed and evocative experiences from the personal past. This symposium highlights recent advances in autobiographical memory research from a multidisciplinary perspective to explore the neurocognitive mechanisms which support the capacity to relive the past. Drawing upon functional neuroimaging studies in healthy individuals and

neuropsychological investigations of clinical populations, this symposium will illuminate the intricacies of the autobiographical memory system and the underlying neurocognitive mechanisms which must be functional to support this complex process.

The neural bases of autobiographical memory retrieval

Donna Rose Addis, Eleanor E. J. Moloney, Lynette J. Tippett, Reece Roberts, Sylvia Hach

Two decades of neuroimaging research has characterised the autobiographical retrieval network – a whole-brain network

overlapping with the default mode network that is particularly engaged by the retrieval of episodic autobiographical memories. In this talk, I will discuss research examining the factors that modulate engagement and connectivity of this network, including the phenomenology of memories (e.g., specificity, detail and recency) and damage to critical nodes. Moreover, I will describe our recent work examining the involvement of a largely neglected region – the right posterior cerebellum – in the retrieval of autobiographical memories.

Mechanisms of relational memory as the building blocks of ABM

Melanie Cohn

ABM retrieval involves complex operations including binding and reintegration of experiences as well as more executive components such as the generation of retrieval cues, and the evaluation and elaboration of recovered information. These processes can be difficult to isolate experimentally in typical ABM paradigms. Alternatively, we can study basic mechanisms of encoding and retrieval of relational information which are fundamental properties of ABM. In this talk, I will elaborate on these by examining how relational memory is disrupted in different populations (aging, temporal lobe epilepsy and Parkinson's Disease).

Autobiographical memory in children with severe traumatic brain injury: Growing into deficits

Suncica Sunny Lah, Louise Parry, Chloe Gott, Carly Black, Adrienne Epps, Michael Gascoigne

Autobiographical memory (ABM), which involves recall of semantic and episodic details, develops through childhood and adolescence. The impact of childhood traumatic brain injury (TBI) on retrieval of ABMs is unknown. We (i) compared ABMs of children and adolescents who sustained severe TBI and controls, and (ii) examined relations between ABM details and chronological age. Selective impairments involving episodic, but not semantic, ABM details were found in the TBI group. The

number of episodic details increased significantly with age in the control, but not the TBI group, resulting in an ever increasing gap between the groups with age.

Autobiographical memory in healthy adults and patients with focal epilepsy: Findings from a self-report questionnaire and a fluency test of autobiographical events

Laurie Miller, Annu Mothakunnel, Emma Flanagan, Zoe Thayer

Some patients with epilepsy complain of poor memory for their past. We assessed autobiographical memory objectively using an events fluency test in 47 patients with focal epilepsy and subjectively with a new eight-item questionnaire in a subset of 15 patients. Both measures were also performed by 58 age-matched, healthy adults. On the fluency measure, remote and recent memory impairments were found in patients with both temporal and extratemporal epileptic foci, irrespective of age of onset. The questionnaire yielded no significant group differences. Correlations between subjective and objective scores emerged only for controls. Overall, event-fluency proved useful for evaluating autobiographical memory.

Deconstructing autobiographical memory in the Dementias using a longitudinal approach

Muireann Irish, Annu Mothakunnel, Sharpley Hsieh, Ramon Landin-Romero, John R. Hodges, Olivier Piguet

Loss of autobiographical memory (ABM) is a common complaint in dementia, attributable to the breakdown of large-scale neural networks in a systematic and coordinated fashion. It remains unclear, however, how ABM deteriorates with advancing disease severity, and the underlying mechanisms of these changes. In this talk, I will highlight the evolution of recent versus remote memory deficits in Alzheimer's disease and frontotemporal dementia, and the neural bases of these deficits. The pivotal role of semantic memory in mediating remote ABM retrieval will be discussed, offering new insights into how ABMs are gradually transformed into semantic representations.

The effect of collaboration on pauses in very mild dementia

Thomas Morris, Amanda Barnier, Celia Harris, Greg Savage, Janet Duchek, David Balota, Nina McIlwain

Individuals with mild to severe Alzheimer's disease (AD) demonstrate both longer and more frequent pauses during autobiographical recall than controls. Such pauses reflect underlying cognitive and structural dysfunction characteristic of AD,

and have proven useful in identifying those at risk of developing the disease. This study is the first to investigate the effect of collaboration on pause behaviour in AD. Specifically, we report the benefit on pauses of recalling with a spouse on autobiographical recall tasks in individuals with very mild dementia. We discuss these results in the context of extending the definition of "success" in the canonical Collaborative Recall

Paper Session

Chair: Muireann Irish

Motivated to remember? Modulation of value-based learning and memory in dementia

Stephanie Wong, Greg Savage, John R. Hodges, Olivier Piguet, Michael Hornberger

Value-based strategic encoding enhances recall of highly valued information. This memory enhancement effect was investigated in behavioural-variant frontotemporal dementia (bvFTD) and Alzheimer's disease (AD) patients, using a novel word-list learning task, where each word was assigned a low, medium or high point value. Across three learning trials, controls and AD patients earned more points by recalling more high value words, whereas bvFTD patients did not show such preferential recall. Both patient groups correctly recognized more high relative to low value words. Despite better recognition memory for highly valued information, bvFTD patients show difficulty applying value-based information in a motivationally-salient context.

False memories in Alzheimer's Disease: Is the activation of the critical lures preserved?

Anne-Laure Gilet, Christelle Evrard, Fabienne Colombel, Yves Corson

Why do Alzheimer's patients sometimes produce few false memories in the Deese/Roediger-McDermott (DRM)

paradigm? Is the activation of the critical lure in semantic memory prevented by an alteration of the semantic network, as it is sometimes postulated? To answer these questions, we conducted several experiments to investigate the activation process of the critical lure in Alzheimer's patients. Using procedures such as lexical decision or free association tasks, our studies suggest that the activation of the critical lure is preserved in Alzheimer's patients. Results will be discussed with regard to the existing literature on Alzheimer's disease and false memories.

Cognitive reserve and delayed Alzheimer's Disease **Tiger Aspell**

Cognitive decline is an important symptom to address in neurodegenerative conditions, e.g. Alzheimer's disease, but not everyone is equally susceptible to this disease. Cognitive reserve suggests that resiliency may occur by the incorporation of neurons that had not been previously used. Studies have indicated exercise elevates levels of brain-derived neurotrophic factor, a protein responsible for neuronal growth and survival. Therefore, it is proposed that exercise increases cognitive reserve. This comprehensive literature review will provide evidence to support the claim that aerobic activity may delay the onset of Alzheimer's disease through the activation of cognitive reserve.

Paper Session**Room 100****Chair: Kazuo Mori****Research proposal: Assessment of the international index of conformity ratio of co-witness pairs by utilizing the Garry-Mori experimental procedure****Kazuo Mori, Hiroshi Ito**

We have developed an innovative experimental method for examining the memory conformity among co-witnesses, through collaboration with Maryanne Garry (The Mori-Garry Paradigm; Garry, French, Kinzett, & Mori, 2008). We would like to propose an international project to conduct the same memory conformity experiments with witness pairs in different cultural backgrounds. We will obtain the average ratios of conformity frequencies among co-witnesses under the same experimental witnessing condition. We will present the outline of the experiment and invite the collaborators in a variety of cultural background. We would be happy to send the experimental equipment for the replication experiment.

A model for memory report variability across retellings**Misia Temler**

I present a model of how changes in memory reports across retellings may arise. In my PhD research I used the Memory Retelling Paradigm and the Social Contagion Paradigm for Autobiographical Memory to investigate changes across retellings due to intrinsic variability and social contagion. Drawing from my studies I illustrate that the source of error whether intrinsic or from contagion is interrelated. People have different thresholds for inaccuracy that are influenced by social and individual factors and different functions of autobiographical remembering. My model may be useful to those who work in forensic settings where multiple interviews are the norm.

The effects of repeated lying on memory**Eric Rindal, Maria Zaragoza**

A consistent liar will appear more credible than one who is not. The present study sought to assess the memorial consequences of repeated lying. Participants viewed an eyewitness event and were then asked to lie about details of what they witnessed. They were asked to lie about some details only once and to consistently lie about other details three times. After a 4-week retention interval their memory was assessed with free recall and yes/no recognition. Both lying once or repeating a lie three times led to false memories, but the effect of repetition depended on how memory was assessed.

Contextual bias influences forensic testing procedures**Adele Quigley-McBride, Sara Davis, Gary L. Wells**

Forensic examinations are performed in a way that leaves examiners open to be biased by irrelevant, contextual information when making match decisions. We tested a new method for neutralizing contextual bias in forensic match examination, as proposed by Wells and colleagues (2013). The new method uses fillers (samples taken from known innocents) to disguise which sample is from the suspect and remove the influence of bias on the suspect sample. Using handwriting samples and fingerprint samples, the filler-control method shows promise and the results tend to parallel the showup versus lineup differences that have been shown in the eyewitness area.

Equal, but not the same: The effect of context manipulations on the strategic regulation of accuracy**Michelle M. Arnold, Toby Prike, Paul Williamson**

The current experiments focused on the impact of context on strategic regulation. In Experiment 1 participants chose to report

either their fine-grained or coarse-grained free-report responses for medium-difficulty questions mixed in with either easy or hard questions. Experiment 2 was a multiple-choice test that required participants to report or withhold their answers, but the default decision option was set to report, withhold, or was blank. Both manipulations affected strategic regulation, with the largest influence on metacognitive bias. These results support previous research showing that context variables unrelated to the stimuli of interest are important to consider for understanding metacognitive performance.

Public attitudes on the ethics of planting false memories to motivate healthy behavior

Robert A. Nash, Shari R. Berkowitz, Simon Roche

Planting false memories could, in theory, have positive behavioral consequences, yet the idea of doing so outside the laboratory raises ethical questions. How might the general public appraise this moral dilemma? Participants read about a fictional “false-memory therapy” that led people to eat more healthily, then they reported their attitudes on the acceptability of this therapy. There were surprisingly divergent responses to this contentious issue, and participants believed various factors would influence their viewpoints. Whether or not deliberately planting memories outside the lab could ever be justifiable, these studies shed light on people’s beliefs about and valuing of autobiographical memory.

Perceptions of credibility for memory reports of single and repeated events

Camille Weinsheimer, Deborah Connolly, Carla MacLean

How adults remember and recall instances of repeated events and how credible their reports are perceived have important real-world applications (e.g., eyewitness testimony, asylum adjudication, industrial investigations). Undergraduates experienced staged repeated or unique events and were asked to recall the same target instance. Memory reports were video recorded and

shown to new participants who evaluated a speaker’s credibility. Overall, repeated-event (vs. unique-event) reports were seen as less credible despite being equally accurate, and perceived confidence, consistency, and cooperation of the speaker mediated these differences. This study demonstrated that differences in remembering affect evaluations of honesty, cognitive competence, and overall credibility.

The effectiveness of self-generated retrieval cues in facilitating eyewitness recall

Rebecca Wheeler, Fiona Gabbert, Lorraine Hope, Sian Jones, Iona Macpherson, Tim Valentine

Associative Network models of memory suggest the overlap between encoded information and retrieval cue predicts the likelihood of successful retrieval. Self-generated cues represent one means of increasing this overlap. Participants (N = 170) witnessed a live event, before completing a free recall task. Retrieval strategies varied by condition, with three self-generated cue techniques utilised; keywords, a timeline, or concept map. Self-generated cues improved free recall, without reducing accuracy. In addition, different self-generated cue techniques elicited different types of information (person, action, setting details). Self-generated cue techniques could be used strategically to aid retrieval of details most pertinent to an investigation.

Using a measurement model to understand eyewitness identification

Carolyn Semmler, John Dunn, John Wixted, Laura Mickes

A major limitation in the understanding eyewitness identification has been the failure to develop and to validate an explicit measurement model of the basic identification task. This has prevented researchers from being able to interpret observed features of the task, in terms of psychologically relevant parameters, such as target discriminability and response criteria. In our preliminary work to date, we have developed such a model, we present work evaluating how well it accounts for various findings in the literature and the advantages

to using modelling to define the various strategies that eyewitnesses may use when making an identification decision.

Symposium

Room 103

Memory, performance, and the arts

John Sutton

Skilled experts in performing arts keep track of a bewildering variety of features of highly dynamic environments. They must not only remember how to execute their technically and physically demanding actions, but also adjust strategy, sequence, or style to adapt to changing aesthetic or audience requirements. Through case studies of expert communities of practice, this symposium examines the variety of relations between declarative or explicit memory and procedural or embodied memory in skilled performance. Papers address trapeze, theatre acting, dance, film editing, and professional music, as well as the power of music to evoke autobiographical memories in people with dementia.

Scaffolding memory on and away from the static trapeze

Kath Bicknell

Trapeze students find it particularly hard to remember new tricks. Without access to the trapeze bar between lessons, they independently develop distributed, embodied strategies to scaffold skilled performance and recall complex manoeuvres. This paper draws on sustained autoethnographic fieldwork leading up to a live performance on the static trapeze, responding to Hutchins' (2010) call to consider the multimodal complexity of cognitive ecologies. Dynamic retrieval cues to long-term working memory are set up and tapped in overlapping multimodal strategies for scaffolding memory in performance: these include music, muscular sensations of strength and fatigue, the emotional pitch of routines, and verbal instruction.

'Like an unperfect actor upon the stage': Constraints and actors' memory in historical perspective

Evelyn B. Tribble

"How do you remember all those lines?" is an unwelcome question for actors, who see it as reducing their art to mere technical skill. Psychologists have accorded it little attention, save Tony and Helga Noice's studies of expert actors' memory strategies. But these strategies are closely bound to the particular material and institutional conditions of modern acting. This paper places the question in historical context. A distributed model of cognition explains the very different strategies used by actors in Shakespeare's time, emphasizing how multi-modal techniques – the yoking of language and gesture – constrained memory in early modern England.

'The memory challenge': A new method for investigating expert memory for contemporary dance

Kate Stevens, Scott deLahunta, Kim Vincs, Elizabeth Old

Long-term memory is revealed not only in what is remembered, but also in what is forgotten. Dancers' precision in recalling extended, multimodal sequences defies conventional methods to investigate memory. Collaborating with members of Australian Dance Theatre, we developed a method that elicits memory recall and lapsing. Divided into "teams", dancers chose excerpts for memory recall from the company's extensive repertoire that would challenge dancers in the other team. Dancers reproduced as much of the excerpt as possible in silence. Recall was extensive but also contained lapses. The time frame was slower; transitions were smooth even when lapses occurred.

Editing thinking: Memory, cognition and the creative practice of film editing**Karen Pearlman**

This paper applies theories of memory and skill, embodied cognition and extended mind to an analysis of the process of film editing. The case study is the work of acclaimed Soviet filmmakers Dziga Vertov and Elizaveta Svilova in the 1920s and '30s, especially in montage and 'edited rhythms'. Viewing their editing as work of a 'distributed cognitive system' (Sutton 2015) provides insight into the significance of editors' creative contributions to films. An understanding of editing as the kinaesthetic and empathetic work of 'extended mind' (Chalmers & Clark 1998) also contributes to new understandings of filmmakers' cognitive collaborations and film authorship.

Paper Session**Chair: John Sutton****Memory for melody: Investigating the link between prior experience, perception, and subsequent formation of memory representations****Steffen Herff, Kirk Olsen, Jon Prince, Roger Dean**

In a continuous recognition paradigm, memory for melodies sounded in a familiar tuning system is enhanced when the melody to be recognised is identical to the most recent stimulus (a recency-in-memory effect). However, commonly reported interference effects from the number of intervening items are not apparent in memory for melodies. Here, 167 listeners were presented with melodies sounded in an unfamiliar tuning system. Results indicated an inversion of the aforementioned recognition phenomena: recency-in-memory was not observed, yet interference effects from the number of intervening melodies were. The link between prior experience,

Music, autobiographical memory and identity in persons with dementia**Amee Baird, Olivia Brancatisano, William Forde Thompson**

Music is effective at evoking autobiographical memories and emotions and, in turn, identity. This paper will review a recent study of music-evoked autobiographical memories or 'MEAMs' in individuals with mild cognitive impairment (MCI) or dementia of any type, and healthy elderly. In this study, we examined the frequency and type of memories evoked by popular music and photos of famous events from across life periods, and explored whether the reminiscence bump exists for these stimuli. We will characterise MEAMs compared with memories evoked by photos, and discuss the implications of MEAMs for identity. A measure of self-identity that involves generating 'I am' statements (such as "I am a grandfather") and associated memories while listening to favourite music will also be described.

perception, and subsequent formation of memory representations is discussed.

Acquiring skill in music: Does mindset matter?**Alexander P. Burgoyne, Lauren J. Harris, David Zach Hambrick**

A person's beliefs about the nature of their abilities-their mindset-can impact learning. This study was the first to investigate whether mindset could account for variance in skill acquisition in novice pianists, over and above the expected contribution of domain-general and domain-specific ability factors. A hierarchical multiple regression model indicated that cognitive ability and music aptitude accounted for a substantial proportion (33%) of variance in piano skill acquisition. However, mindset did not contribute significantly to the prediction of performance, $\hat{R}^2 = .004$. Results suggest that ability factors play a large role in the early stages of piano skill acquisition.

Unconscious plagiarism in music composition: Elaboration by imagery and improvement increases source confusion

Miriam Rainsford, Matthew A. Palmer, Timothy J. Hollins, James D. Sauer, Nicholas J. Beeton, Garth Paine

In verbal creative tasks, unconscious plagiarism is increased after improving others' ideas but not by imagery tasks. We show that both imagery and improvement increase unconscious plagiarism in music. In two experiments, expert and non-expert musicians generated brief melodies with a computer-simulated partner, which were then elaborated by imagery and improvement. Following a retention interval (up to a week) participants generated new melodies and completed a recognition test. Improvement increased plagiarism (as in verbal tasks), but imagery also increased plagiarism. Expertise did not influence plagiarism. These findings suggest that musicians are more susceptible to unconscious plagiarism than previously thought.

The cost of eternal vigilance: Can meta-awareness and metacognition in mind-wandering explain trauma-related intrusive cognitions?

Diane Nayda, Nicola Guerin, Melanie Takarangi

We propose that the underlying mechanisms that operate in mind-wandering may also explain trauma-related intrusive cognitions. A large online community sample (N=529) completed questionnaires including measures of dispositional mind-wandering, meta-cognitive style, frequency of involuntary autobiographical memories, dissociative experience, mindfulness and trauma history and reactions. Our results show that dispositional mind-wandering is positively related to involuntary cognitions-- importantly trauma-related cognitions-- maladaptive meta-cognitive strategies, and negatively related to mindfulness. These results are consistent with the idea that the same mechanisms underlie default mind-wandering and involuntary autobiographical memories. Metacognitive responses to meta-awareness of mind-wandering might be critical in the development of PTSD symptoms.

Symposium

Room 105

Looking for essences: The influence of essentialist beliefs on real world reasoning

Jessecae Marsh, Andrew Shtulman

People act as if categories in the world possess essences, or deep underlying properties that determine the features of the category and are required for category membership. In this symposium, we explore how the fundamental belief that certain categories possess essences shapes the way we think and interact with our world. We illustrate that essence beliefs fundamentally influence our reasoning about an array of diverse issues including evolution, health disorders, genetics, and social groups. By investigating this basic cognitive question of how we believe categories are structured, we illuminate how we reason in a variety of important real-world domains.

How essentialism biases our understanding and acceptance of evolution

Andrew Shtulman

People of all ages have been shown to construe biological kinds as possessing an inner nature, or "essence," that determines its outwardly observable properties. I will present evidence that such construals lead us to overvalue the differences between species and undervalue differences within species, which, in turn, leads us to misconstrue mechanisms of change that operate over within-species differences, such as natural selection. I will show that essentialism breeds misconceptions about evolution that are (a) early developing, (b) resistant to instruction, (c) conceptually coherent, and (d) predictive of whether one accepts evolution as an explanation for biological adaptation.

**Essence beliefs in mental health:
Understanding the role of experience**
Jesseca K. Marsh

People endorse mental health disorders as being defined by underlying essences that create disorder features. However, our scientific understanding of mental health disorders does not always support the existence of shared causal essences. I will present data on how experience with mental disorders in the form of professional (e.g., health care providers) and personal interactions (e.g., diagnosis of a loved one, self diagnosis) changes essence beliefs. I will discuss how specific types of interactions with categories alter beliefs about essences and how an understanding of the interaction between expertise and essences is important when communicating health information.

**Cultural differences in essentialist thinking
about social categories**

John D. Coley, Yian Xu, R. Cole Eidson, Aidan Feeney, Jocelyn Dautel

Essentialist thinking about social categories leads to stereotyping, prejudice, and intergroup conflict. We examined social essentialism among undergraduates in the USA and Northern Ireland. Although dimensions of naturalness and cohesiveness characterized social essentialist thinking in both locations, social categories were perceived as more coherent in NI. Moreover, race categories (Black, White) were seen as more natural in the US, whereas religion categories (Catholic, Protestant) were seen as more natural in NI, reflecting cultural and historical differences. Understanding both universal and culturally specific aspects of social essentialism is critical to understanding social bias, prejudice, and conflict, and how to prevent them.

**Essentialist beliefs, internalised
homonegativity, and well-being among
lesbian women and gay men**
Ilan Dar-Nimrod, James Morandini

Genetic essentialism, which increases people's tendency to view various human phenomena as less immutable when genetic explanations are offered, has been shown to affect how heterosexual individuals view same-sex attracted individuals. However, research to date paid little attention to the effects of essentialist beliefs on gay/lesbian individuals themselves. The current study addresses these potential effects, assessing the relationships between endorsement of various essentialist biases (e.g., naturalness and discreteness) on internalised homonegativity and well-being in a large sample. Using gender-appropriate structural equation models we found mostly support for predictions on diverging effects of different essentialist biases on internalised homonegativity and wellbeing.

**Discussion: The pervasiveness and
persistence of essentialist reasoning in
children and adults**

Karl S. Rosengren

The discussion for this symposium will focus on the wide range of topics and domains where essentialist reasoning has been found to influence the way that both children and adults behave and reason about the world. The discussion will highlight the diversity of the topics covered in the symposium and offer insights into how these talks shed light about domain specific and domain general aspects of cognition, costs and potential benefits of essentialist reasoning, and the factors that may influence the persistence and stability of essentialist reasoning.

Paper Session

Chair: Jessecae Marsh

Religious people don't distinguish between good and bad reasons for their beliefs
Brittany A. Cardwell, Jamin Halberstadt

To what extent can religious and nonreligious people distinguish between good and bad reasons for their beliefs? Subjects listed reasons for their belief or disbelief in God, then evaluated the quality of their best or worst reasons. Nonbelievers rated their best reasons as better, but believers rated the two types of reasons as equally good. Followup studies suggest these effects are specific to religious beliefs, and to when believers evaluate their own reasons (not others'). These findings imply that religious reasoning may be protected from logical argument in part because believers overlook or downplay the poor reasons for their beliefs.

Imagining a brighter future: Applying episodic future thinking to foster charitable donations

Brendan Gaesser, Liane Young

Little attention has been paid to the potential contribution of episodic future thinking in guiding social behavior. Recent studies have shown that episodic future thinking can be used to increase intentions to help others. Here, we present evidence that reveals how imagining future helping events can facilitate prosocial behavior directed at enhancing the welfare of actual people in need, using a novel online donation paradigm in coordination with non-profit organizations. These findings point to a new direction for research at the intersection of cognitive and moral psychology, and illustrate the social value of applied research to help those in need.

Evaluation and redesign of health care icons
Frank Drews, Jeremy Gleed, Jonathan Zadra

In Health Care, Electronic Health Record software uses icons in the graphical user interface that are not standardized. The result is reduced usability of the software and high cognitive demand for the user. The goal of this work was to explore the usability of existing and newly designed health care icons for use in future EHR systems in two studies. The results suggest that the majority of currently used icons have low usability, while usability of newly designed icons was high, indicating that more intuitive and user-friendly icons can be developed by following human factors design principles.

Medical practitioners are susceptible to misleading information about their interactions with patients

Ryan Burnell, Cassandra Burton-Wood, Andrea Taylor, Brian Robinson, Deirdre Brown, Maryanne Garry

How accurately do medical practitioners remember their interactions with patients? In a simulated medical scenario, we asked hospital practitioners to assess a "patient" in acute pain. Then, 15-20 minutes later, practitioners read a misleading summary of their interaction with him. At a memory test less than 10 minutes later, practitioners reported this misleading information. At a follow-up test three weeks later, accuracy was poor for all tested information. These data suggest that even trained medical practitioners are susceptible to misleading suggestions. Our findings raise concerns about how long practitioners have to report medical errors or complication.

Symposium**Room 107*****Memory in educational contexts: New directions****Penny Van Bergen*

Memory underpins learning and development in education. Students brainstorm what they know, reminisce about past experiences, and learn about new educational concepts in a variety of ways. In this symposium we highlight new directions in research examining memory in education. Working across ages, from preschool to adulthood, we consider how students collaborate with teachers and peers; how they integrate separate episodes of learning, or events, to generate new knowledge; and how pedagogical interventions and strategy instructions might be used to support learning. Our goal is to synthesize episodic and semantic memory research from the lab to the classroom.

Educator-child reminiscing presents new memory scaffolding opportunities in long daycare centres

Rebecca Andrews, Shirley Wyver, Penny Van Bergen

Contemporary research into preschoolers' autobiographical memory development investigates the role of parents, predominantly mothers, in scaffolding children's emerging memory and cognitive skills. Our study extends this work to consider the role of early childhood educators. Twenty-one daycare educators were each paired with up to six younger (27-36 months) or older (48-60 months) pre-school children (n = 89). Each educator-child dyad discussed two novel and two familiar past events. Conversations were coded for elaborative style, mental state language, and temporal terms. Similarities and differences in parent and educator scaffolding are discussed.

Developmental changes in the generation of new knowledge through integration of separate episodes of new learning

Patricia Bauer, Alena G Esposito

Memory serves us in a great many ways. In addition to allowing for recall of events and experiences from the past, memory has a productive quality that permits generation of new factual knowledge that was never directly learned. We present the results of research in the laboratory and in the classroom illustrating developmental changes in the productive extension of knowledge through integration of separate yet related episodes of new learning in children 4 to 10 years of age. The work demonstrates integration not only across episodes, but across languages (English/Spanish). The implications of pronounced individual differences are discussed.

Thinking together, remembering alone: Does the effectiveness of peer collaboration in schools depend on the task?

Penny Van Bergen, Kevin McGrath

Peer collaboration has become a popular instructional strategy in schools. The assumption is that "two heads are better than one": that students will learn more together than apart. Surprisingly, however, psychological research with adults suggests that collaboration may disadvantage memory. The goal of this study was to compare children's memory performance in pairs and alone. Sixty elementary students were allocated to a collaboration or nominal condition. Working together or alone, they completed two cognitive tasks: a memory task and a critical thinking task. In this presentation I discuss the influences of task and age on children's collaborative performance.

“How are we going to do this?” The effect of explicit strategy agreement on collaborative memory performance

Vana Webster, Amanda Barnier, Michelle Meade, Celia Harris

Groups that coordinate their recall may experience less retrieval disruption when collaborating on memory tasks. It is unclear, however, if coordination emerges over time or if groups can rapidly generate and adopt strategies for coordination. This has implications for group learning. In two collaborative recall studies pairs of unfamiliar undergraduate students nominated a strategy to help them remember a word list. Strategy agreement at either encoding or retrieval had limited immediate benefit to group recall. We argue that effective collaborative performance may depend on time for implicit strategies to develop and discuss implications for implementing collaborative learning in educational settings.

Paper Session

Chair: Penny Van Bergen

A study of children's perceptions and responses to open and closed questions

Lydia Timms, Sonja Brubacher, **Martine Powell**, Madeleine Bearman

Despite global recognition that an open-ended interview style maximises the quality of a child's account, there has been no investigation into children's perceptions regarding the different questions types they encounter in an interview. While the aim of an investigative interview is to elicit an account of the child's experiences, it is also important that the interview process be as pleasant and non-threatening as possible. This paper discusses the perspective of 80 school-aged children towards question types. Following two interviews about a film, children were asked to address the content, quantity, length, and attention of each interview/interviewer and justify their response.

Event cognition applied to the learning of procedures

Amael Arguel

Learning new event-based procedures, such as first aid procedures and medical techniques, is a complex cognitive activity. Understanding the cognitive processes involved in the perception and memorisation of these events can offer valuable knowledge for designing adapted instructional materials. In this presentation, a theoretical background of event cognition will be discussed and examples of educational applications in adulthood will be reported. A prototype of a new multimedia educational technology which offers inter-event reminders will also be presented. Experimental findings show the effectiveness of this tool for enhancing event learning.

Discussant Karen Salmon

Differential effects of general versus cued invitations on children's reports of a repeated event

Meaghan Danby, Stefanie Sharman, Sonja Brubacher, Martine Powell, Kim Roberts

Open-ended prompts have been advocated to assist children's particularisation of episodes from repeated events, such as ongoing abuse. The current study examined the differential effects of two open-ended prompt-types, general and cued invitations, on 5–9-year-old's (n = 203) reports about episodes of a repeated event. After participating in four episodes of a repeated event, the children responded to general and cued invitations about individual episodes. Cued invitations elicited specific details about the episodes, while general invitations elicited broad happenings. Cued invitations elicited more accurate responses (than general invitations). Accuracy to general invitations differed with children's age and interview timing.

The effect of a short reminiscing intervention on mothers' preferences for mental state talk

Penny Van Bergen, Karen Salmon

This project focused on reminiscing as a means of enhancing mothers' preferences for mental state talk. First, mothers (n = 115) completed the Maternal Mental State Input Inventory (MMSII), selecting their preferred response (elaborated/non-elaborated, mental-state content/no mental-state content) to 12 everyday

scenarios. Next, mothers participated with their children in one of two conditions: a reminiscing intervention or control. Finally, mothers completed the MMSII again. Mothers in the intervention condition scored higher for elaborated mental state responses and lower for non-elaborated non-mental state responses, suggesting that reminiscing instruction enhances maternal preferences for mental state talk. Implications for children's development are discussed.

4:20pm – 5:50pm

Poster Session

Room: The Foyer

1- Reconsolidation of episodic memory processing

Kai Rong Tay, Jonathan Lee, Maria Wimber

Episodic memories are not always accurate, being subject to false recollection, potentially due to the process of memory reconsolidation (Loftus, 2005). The current study attempted to replicate previous findings of episodic-like memory reconsolidation. University students learned a first list of 20 images on Day 1. On Day 2, they were asked either to the same testing room as Day 1 or a different testing room, and learned a second list of 20 images. A free recall was tested on Day 3. Current results showed an alteration of list 1 recall, with no differences in list 2 intrusion.

2- Sensitivity in a similarity-based model of recognition memory

Amanda Shanks, Simon Cropper, Daniel Little

Reduced old-new recognition performance may be due to a lowered level of memory sensitivity that reflects the fidelity of stored stimuli. We manipulated sensitivity using a backward-masking paradigm in a recognition memory task. Four colour-normal observers made old-new judgments for cardinal colour patches distributed throughout the subjectively equiluminant colour plane. The masks employed were either similar or opponent in hue to the study and test items, or achromatic (luminance). Results showed a minimal effect of mask-induced interference on recognition performance across all conditions suggesting that short-term memory for cardinal colours is robust despite the presence of external noise.

3- Extraordinary beliefs and memory: Exploring the relationship between anomalistic belief and both true and false memory

Jack H. Hodge, Michelle M. Arnold, Danielle A. Welch, and Toby Prike

Previous research has demonstrated a negative relationship between anomalistic (e.g., paranormal) belief and performance on several reasoning tasks. However, it is less clear whether there is a link between anomalistic belief and memory. Experiment 1 explored memory differences for believers and non-believers by using words studied in either an anomalistic or control context. Experiment 2 tested for a positive relationship between anomalistic belief and false memory using the Deese/Roediger-McDermott paradigm. Using regression analyses, relationships emerged between level of anomalistic belief and false (but not true) memory, which will be discussed in terms of type of belief (i.e., experiential vs. theoretical).

4- Memory cue evolvment with personal objects and media: The development of the item-memory relation over time

Annemarie Zijlema, Elise van den Hoven, Berry Eggen

Personal items that remind us of our past have not always been reminders; at some point they started cuing autobiographical memories, and its function and meaning may have changed over time. We are interested in the item-memory relationship and how this relationship

evolves over time. Therefore, we set up a study with 19 participants, who filled in cards with questions about the memories the item cued and the interaction with the item, over a time period of eight months with three personal items for each participant. In this poster presentation we will discuss factors that contributed to the item-memory relationship.

5- Differences in the use of autobiographical memories across the lifespan: A replication and extension

Tabea Wolf, Daniel Zimprich

Autobiographical memories can serve self, directive, and social functions in daily life. Recently, we have shown that the frequencies in which memories are used along these functions linearly decrease across the adult lifespan, whereas their associations increase with age (dedifferentiation). Based on the data of almost two thousands individuals, we aim to replicate these findings but also to extend them by (1) including an adolescent age-group and (2) investigating a possible fourth function, namely, an emotion-regulation function. After testing measurement invariance across age-groups, factor means, factor variances and factor covariances will be investigated using multigroup confirmatory factor analyses.

6- Long-term memory for moving stimuli **Megumi Nishiyama, Terasawa Takafumi**

We investigated how long visual memory for moving stimuli could be retained. The stimuli consisted of a moving circle. There are two sessions in the experiment and the second session were conducted four weeks after the first session. In the first session, some stimuli appearing in the second session were presented two times each. The participants observed them under incidental condition. The second session consisted of a study phase and of a test phase. In the study phase, the participants observed stimuli in a manner similar the first session. Half of the stimuli had been presented in the first session,

7- Complex memories: Independence or integration?

Kacie Mennie, Sean Lane

Memories of complex events such as crimes involve multiple components, such as objects that were used or actions that were performed. Yet, researchers have argued that these

components are independent or that they are structured. The answer to this question has implications for knowing whether accuracy for one event detail predicts accuracy for another. In this experiment, we had participants study face-object pairs, and manipulated encoding strategy (integrate or independent) and emotional arousal. Results revealed that encoding strategy influenced subsequent memory accuracy, and emotional arousal did not moderate this effect. We discuss the implications of these results for eyewitness memory.

8- A trip down memory lane

Shannon Westgate, Eilis Gallagher, Julien Gross, Harlene Hayne, Rachel Zajac

Historical claims of sexual abuse often involve highly detailed descriptions of the alleged events. Given that the delay between the alleged event and a trial can sometimes span decades, it is prudent to question the veracity of some of those details. We asked adults to recall four past events in detail. Some of these adults were asked to speculate about unremembered details. When these participants were interviewed again later, they repeated some of this speculation. These findings suggest that speculation may-at least partially-account for the highly detailed descriptions contained in historical claims of sexual abuse.

9- GoT it right: Memory for positive and neutral film clips

Michael Greenstein, Jamie Ember

This study examined the effects of a positive emotional stimulus on memory for information presented prior to, during, and after, the introduction of the emotional stimulus. Participants watched a film clip containing three scenes. The first and third scenes were identical, as were the auditory elements of the second scene. Visually, the second scene differed such that half of the participants viewed a positive emotional stimulus, and half did not. We tested participants' memory for each scene's audio and visual content as a function of the information's plot-relevance. We discuss the data's implications with respect to both theory and application.

10- Power of nostalgic music on advertisement: Increasing attractiveness but decreasing memory for details

Jun Kawaguchi, Hiroko Nakamura

Nostalgia is sentimental longing for one's past. Recent studies show that nostalgia influences various psychological aspects as raising optimism, boosts creativity, etc. In a commercial setting, nostalgia is often used as a technique of advertising in order to heighten values of items. However, the underlying process is unclear. This study examined whether nostalgia influenced attractiveness and memory of advertised items. Participants were presented with advertising copies and commercial products while listening to nostalgic or non-nostalgic music followed by evaluating attractiveness of items and remembering the advertisement. The results showed that listening to nostalgic music heightened attractiveness, but lessened memory.

11- Preschool children's selective trust in a causal learning task: The role of the intentionality of the demonstrator

Kate Ridgway

The present study applied the selective trust paradigm (Harris, Clement & Koenig, 2004) to pre-schooler's causal learning. The study aimed to determine whether pre-schoolers would a) learn how to use two novel toys, b) prefer a clear causal demonstration of the toys over an ambiguous demonstration and c) prefer an intentionally clear demonstration over an accidentally clear demonstration of the toy. The pre-schoolers did not show the predicted preference for intentionally clear causal demonstrators. This result appears to replicate Gillis and Nielson's (2013) finding that pre-schoolers fail to concurrently learn new information and evaluate the source of this information.

12- Spinning your story as my own: Personal and vicarious life stories are related within couples

Katherine Panattoni, Dorthe Kirkegaard Thomsen

Building on recent findings of structural and emotional parallels between personal life stories and vicarious life stories, i.e., life stories we tell of others, this study investigates relationships in agency and communion themes

and redemption sequences between personal and romantic partner vicarious life stories. Methods: 102 participants (51 couples), cohabitating for at least 11 months, individually completed two "Life Story Interviews," one about themselves and one about partners. Quantitative coding of agency and communion themes revealed significant positive correlations between personal and vicarious themes. Similar results are expected for redemption sequences, along with higher redemption scores in personal life stories.

13- Investigating memory conformity using the MORI technique with a central Asian-Turkish sample

Ceren Gurdere, Sami Gulgoz

The Manipulation of Overlapping Rivalrous Images technique (MORI-technique; Mori, 2003) provided methodological advancements to memory conformity research. In the present study, we investigated memory conformity using MORI-technique and replicated Garry et al. study (2008) in a Central Asian-Turkish sample. Subjects in pairs of two were presented a short film; two versions at a time (only differing in 8 critical items). Results showed that subjects were more likely to report the correct answer for non-discussed critical items than the discussed critical items. However, they tended to rate their confidence on answers for discussed critical items higher than non-discussed critical items.

14- Influences on negative affective priming: Disposition versus symptom severity

Regard Booy, Mario Liotti

The Negative Affective Priming (NAP) task, is thought to measure a vulnerability towards depression because depressed individuals (even sub-clinical samples) do not show negative priming for negative material. However, previous studies have not distinguished symptom severity from a disposition towards depression. 184 participants completed the BDI-II, NEO-PI-R depression subscale (N3), and a modified NAP task. When comparing high and low BDI groups, a significant group by word valence interaction ($p=.016$) was found. However, when comparing high and low N3 groups, this interaction disappeared ($p=.84$). Thus, differences in NAP scores probably reflect current symptom severity, and not a propensity towards depression.

15- The relationship between type of anomalistic belief, reasoning ability, and cognitive bias

Toby Prike, Michelle M. Arnold, Paul Williamson

Many studies have investigated the relationship between anomalistic belief, reasoning ability, and cognitive bias. However, very few have investigated whether there is a difference in reasoning ability and cognitive bias depending on the type of anomalistic belief held. Rather than look at overall belief, we used the factors of the recently developed Anomalistic Belief Scale to look at performance on a conjunction fallacy task, perception of randomness task, and base rate fallacy task. The results of these studies showed that it is not only overall anomalistic belief that matters, but also the type of anomalistic belief (e.g., experiential vs. theoretical).

16- Cognitive dysfunction in Major Depression: A trait or a state?

Sarah E. Fromme, Silke Jörgens, Katharina Förster, Tracy M. Air, Bernhard T. Baune

Cognitive impairments exist during Major Depression Disorder (MDD). The persistence after remission and the role of cognitive dysfunctions as a trait or a state are unclear. Furthermore there is a lack of longitudinal-studies. This longitudinal-study evaluates cognitive dysfunctions in current or remitted MDD-patients compared to healthy controls (HCs). The neurocognitive-assessment includes RBANS. MDD-patients had lower cognitive performances in all domains except visuospatial/constructional and attention than HCs. We did not find differences between current and remitted MDD-patients -an allusion to a trait? In our further analysis we will investigate how develop cognitive dysfunctions of MDD-patients and HCs during the long-term progress.

17- Prospective memory in first degree relatives of individuals with Schizophrenia

Saima Saleem, **Devvarta Kumar**, G. Venkatsubramanian

Prospective memory (ProM) impairment in schizophrenia is established. However, little is known about its status in the first-degree relatives (FDRs) of individuals with schizophrenia. Studies on FDRs will help in establishing endophenotypic value of ProM

deficits in schizophrenia. Twenty individuals with schizophrenia, 20 unaffected FDRs of individuals with schizophrenia and 20 healthy controls were administered especially designed event-based and time-based ProM tasks. The patient group was additionally administered the Scale for the Assessment of Positive Symptoms and the Scale for the Assessment of Negative Symptoms. On the event-based task, the FDR group had better performance than the patient group ($p < .10$, trend towards difference) and poorer performance than the healthy control group ($p < .05$). On time-based tasks, though the FDR group had poorer performance than the healthy control group, the difference did not attain significance. On the other hand, the FDR group's performance on this task was better than the patient group and it attained the significance level ($p < .05$). Thus, the present study shows that event-based ProM can be a cognitive endophenotypic marker in schizophrenia.

18- Susceptibility to false memories and source memory errors: A pilot study in multiple sclerosis

Christelle Evrard, Luc Jagot, Claire Boutoleau-Bretonnière

Source monitoring impairments and false memories have received very little attention in Multiple Sclerosis (MS). The aim of this study was to better characterize, in MS patients, the relationships between source monitoring, false memories and executive functioning. MS patients and matched controls completed a protocol involving a Deese-Roediger-McDermott type task, a battery of executive tests, and a novel source judgment task. Results showed that source errors and false memories were significantly higher in patients, compared to controls. Besides, correlations were found with several executive measures. Our results argue for further research dealing with source monitoring and false memories in MS.

19- Fragmented imagination: Higher depressive symptoms predicts poorer scene construction in a community sample

Beau Gamble, Genevieve Rayne, Chris Tailby, Sarah J Wilson

The ability to mentally construct complex and coherent scenes is thought to underlie a range of cognitive functions, including remembering the past and imagining the future. Although

memory and future imagination are impaired in depression, it is not clear whether scene construction is also affected. Using the Scene Construction Task with participants from the general population ($N = 34$), linear regression showed that higher depressive symptomatology predicted poorer scene construction, even when controlling for verbal fluency. Deficits in scene construction may underlie other cognitive changes common to clinical and subclinical depression, such as impoverished memory and imagination.

20- Corpus Callosum shape, cognition and ageing

Erin Walsh, Marnie Shaw, Perminder Sachdev, Kaarin Anstey, Nicolas Cherbuin

The corpus callosum is the main bundle of fibres connecting the left and right brain hemispheres. This talk will discuss the link between corpus callosum shape and cognition, and present a new study on age-associated changes in global corpus callosum shape. Novel global shape analysis techniques were applied to three or more MRI taken over a sixteen year period from a community-living sample of 302 of Canberra and Queanbean residents aged 45-60. Results highlight the importance of linking brain structure to cognitive function, and the need to preserve healthy brain functioning in order to optimise cognition in ageing.

21- Let's play: How simple game spaces inform the neural relationship between the self and others' successes and failures

Lewis Forder, **Ben Dyson**

The popularity of Let's Play channels on social media suggest that, for some individuals, the experience of games may be independent of whether they control the action. Participants took part in counter-balanced play and observation Rock, Paper, Scissor conditions, where neural sensitivity to wins and losses (feedback-related negativity; FRN) was recorded. ERP data revealed larger FRN for negative relative to positive outcomes, and an expanded fronto-central region in the experience of one's own wins and losses (play) relative to witnessing other's outcomes (observation). The data raise the question of empathy as a mediator between self-produced and other-produced wins and losses.

22- Extending the self into the future: Why age doesn't matter

Sinue Salgado, Dorthe Berntsen

This study examined the temporal distribution of future self-images generated by a large representative sample of Danish adults from 18 to 70 years of age. Although previous research has shown a strong negative correlation between future time perspective and age; our results showed that participants concurred on a surprisingly short future horizon, dating their future self-images within the first five to ten years from their present, irrespective of any demographic factor. The findings are in accordance with temporal construal theory and suggest that future self-images might serve an adaptive emotional and behavioral self-regulatory function regardless of age.

23- Evaluation of apparent usability and aesthetics: An analysis of individual differences in mental models

Yukiko Nishizaki, Toshihisa Doi, Toshiki Yamaoka

This study investigated how users evaluate usability or aesthetics on consumer electronic products based only on on-screen information, such as web pages. We examined the factor of influence in evaluation, that is the degree of elaboration in mental models, familiarity to the products, and age. The results revealed that older adults emphasized usability more than young adults, and users with high proficiency in mental model construction focused more on usability than did those with less advanced mental models. And these results depend on the character of the product or the familiarity of the product to users.

24- Automatic imitation in a strategic context: Using the rock-paper-scissors game with an East Asian sample

Hiroshi Ito

We examined the effect of automatic imitation in a strategic context within an East Asian culture (i.e., Japan) by using the rock-paper-scissors game; the task of strategic players was to avoid imitating their opponents. Participants ($N = 21$) were instructed to play the rock-paper-scissors game with the aim of achieving as many "wins" as possible, while either one or both players were blindfolded. Results revealed that sighted participants did not unconsciously imitate the gestures of blindfolded participants.

Previous findings from Western populations on the effect of automatic imitation were not replicated within the current East Asian sample.

25- Seeing strong men picture boost handgrip force: Compatibility between stimulus potential power and manual force production

Masayoshi Nagai, Yohei Yamada, Hidetoshi Kanaya, Naoaki Kawakami, Yukiko Nishizaki

This study investigated whether the handgrip force exerted by participants was influenced by strength of stimulus potential power. In each trial either a wrestler or baby picture, or a blank screen was presented. The participants' task was to squeeze a handgrip at a pre-learned level (50% of maximum handgrip force) when any picture appeared. Results showed that participants exerted stronger force in response to the wrestler relative to the baby, but only with their non-dominant hand. These findings suggest that information regarding stimulus potential power and manual force are shared between perceptual/cognitive and motor production systems.

26- The influence of implicit priming and support for torture

Amarel Levy, Charles Stone

Sixty-six percent of Americans support the use of torture-this remains despite anti-torture messaging from both the media and the White House. To investigate this discrepancy, we examined the different ways the media may frame (i.e., race, terrorist connections and retribution) crimes and criminals and, in doing so, implicitly influence the public's increased support for the use of torture. The results indicated that the race of the suspect and their connections to terrorism lead to the greatest endorsement of the use of torture and specifically the use of enhanced interrogation, but not torture, was moderated by political affiliation.

27- Does the internet diminish or enhance our memory?

Richard Heersmink

The Google effect shows that when we know information is available online, we put less effort into storing that information in memory. Some argue that this strategy is adaptive because it frees up internal resources which can then be used for other cognitive tasks, whereas others argue that this is maladaptive

because it makes us less knowledgeable. I argue that the currently available empirical evidence in cognitive psychology does not justify negative conclusion about the effects of the Internet on memory. I then argue that online literacy skills are more valuable than having a lot of trivia stored in memory.

28- Lexical decision-primed false memories: Behavioral approaches and neurophysiological perspectives

Michael P. Toglia, Joseph Schmuller, Milena Korostenkaja, Eduardo M. Castillo, Natasha N. DeMeo, Brett Wallace

Employing a lexical decision task (LDT), participants determined whether or not two visually presented letter strings were words. Our novel approach used LDT trials to examine influences upon subsequent recognition of thematically-related items. LDT trials involving words semantically related to DRM lists robustly primed false recognition of critical non-presented words compared to control conditions. Results are discussed in terms of false memory theories. Additionally, we created a design offering promise in exploring neural mechanisms that support LDT performance by using magnetoencephalography (MEG). This initial MEG short-term memory false recognition experiment will motivate the primary MEG examination of LDT-primed false memories.

29- Knowing how to do better: Eyewitnesses metacognition and recollection in lineup decisions

Nicola Guerin, Nathan Weber, Ruth Horry

Eyewitnesses do not make optimal use of recollection in standard simultaneous lineups. The presence-recollection lineup was designed to increase use of recollection and improve sensitivity. In a mini-lineup experiment, eyewitnesses following the presence-recollection procedure were given metacognitive instructions and made two-step simultaneous lineup decisions: first indicating only whether the culprit was present, before identifying the culprit, if present. We varied available familiarity and recollection orthogonally. Witnesses in a standard procedure used recollection to avoid false identification to some degree, but more appropriate weighting of recollection was evident for the presence-recollection lineup. The presence-recollection lineup enhanced

metacognitive monitoring and identification reliability.

30- The penalty of silence: Perceptions of suspects who invoke their Miranda rights during police questioning

Divya Sukumar, Saul M. Kassir

Few suspects invoke their right to an attorney or to silence during police questioning because they assume they will look guilty. We tested this assumption with a 3 (attorney absent vs. attorney present-passive vs. attorney present-active) \times 2 (cooperative suspect vs. withholding suspect) factorial design experiment. Participants read one of six police interrogation transcripts and rated their perceptions of the suspect. Participants were more likely to judge withholding suspects, who invoked their right to silence, as guilty as well as less credible, reliable, and honest compared to cooperative suspects. Surprisingly, having an attorney present did not influence participants' guilt judgments.

31- How should the police replicate a suspect's distinctive feature across foils?

Melissa F. Colloff, Kimberley A. Wade

To stop suspects with distinctive features from standing out in lineups, police officers often digitally add the suspect's feature onto the other lineup members. But how much variation in the replication of the feature is optimal? Over 2700 adults watched two mock-crimes and attempted to identify the culprits. Neither moderate-variation (study 1) nor high-variation (study 2) were better than low-variation at enhancing subjects' ability to discriminate between innocent and guilty suspects. In fact, when the feature varied a lot across lineup members, performance was as poor as when the suspect was the only person in the lineup with the feature.

32- Can an information-gathering approach improve innocent alibi generation?

Rachel E. Dianiska, Christian A. Meissner, Sara Cowan

Research has shown differences in information gain and likelihood of false confessions given guilt-presumptive and information-gathering interrogation approaches. The current study investigated the influence of these interrogation approaches on alibi generation. Subjects either committed a mock crime (guilty

condition) or an unrelated task (innocent condition) and were interrogated three days later using a guilt-presumptive approach, an information-gathering approach, or a control script. Alibis were assessed for accuracy and if they reported participating in an experiment three days prior.

33- The relationship of executive function to interrogative suggestibility and compliance

Katsuya Tandoh

This study investigated the relationship of executive function to the interrogative suggestibility and interrogative compliance. Additionally, Explicit and Implicit self-esteem also were investigated in relation to suggestibility and compliance. Fifty participants were administered the Gudjonsson suggestibility scale 2 (GSS2), the Gudjonsson Compliance Scale (GCS), the Rosenberg Self-Esteem Scale, IAT, and the Flanker task. The results showed that Inverse Efficiency in flanker task were negatively correlated with GSS2, but positively correlated GCS. However, explicit and implicit self-esteem were failed to correlate significantly with GSS. These results suggest that individual differences in executive functioning play a role in suggestibility and compliance.

34- Do judicial instructions improve sensitivity to suggestive identification procedure captured on video?

Alena Skalon, Jennifer L. Beaudry

One of the most common safeguards against erroneous convictions based on eyewitness misidentification is judicial instructions regarding eyewitness evidence. Legal scholars often argue that the use of judicial instructions is a promising safeguard. Unfortunately, psychological studies do not support such claim. However, it is unknown whether judicial instructions are effective in sensitizing jurors to suggestive identification procedures captured on video. The current project evaluates the effectiveness of Australian judicial instructions (Victoria; 2008) in improving mock-jurors' sensitivity to suggestive procedures and to eyewitness accuracy.

35- Displacing the truth with lies? Retrieval-induced forgetting in deception**Harriet Rowthorn**, Kimberley A. Wade

Lies are often rehearsed and repeated, yet we know little about the consequences for memory of the truth. Does the truth become less accessible? To answer this question, we modified the Retrieval-Induced Forgetting paradigm to include a truth-telling and a lying condition. People learnt category-item pairs (e.g. 'Clothing-Shorts') and then practised truthful retrieval of category items or lied about the category items they learnt by providing an alternative category member beginning with the same letter. In a final recall test for the original items, memory performance for lied about category items fell below baseline memory performance, suggesting that repeating lies

36- Focus on the task at hand: Contextual bias in forensic document analysis**Marijn Kouwenhoven**, Rachel Zajac

In 2009, a National Academy of Sciences report revealed that forensic examiners in many disciplines were susceptible to contextual bias. The aim of our research was to investigate this phenomenon in forensic document examination-a discipline in which examiners' interpretation processes may be particularly subjective. We presented lay participants with questioned and exemplar signatures, and asked them to determine whether the signature was genuine or forged. Some trials included information that was potentially biasing. In a second study, we repeated the procedure, this time asking participants to indicate either the similarities or the dissimilarities between the signatures.

6:00pm – 8:30pm
Nerd Nite

9:00am, Thursday January 5

Thursday January 5

9:00am – 10:00am
Keynote:**Room 101****Culturally motivated remembering**

Qi Wang

Episodic memory involves remembering specific events from a particular time and place and their details. It enables us to mentally travel back in time to re-experience our past and is regarded as a true marvel of nature. I discuss how this fundamental process of remembering is variably motivated across cultures. I present findings to show that the culturally motivated process is reflected in the functional significance of episodic memory in constituting the self. It takes place at different stages of remembering and is sustained by family mnemonic practices. The culturally motivated process further moderates the effects of “universal” mechanisms and shapes the psychological consequences of remembering. By delineating the culturally motivated process of remembering, I highlight the central role of culture in human memory and cognition.

10:00am – 10:30am Break

10:30am – 12:30pm
Symposium**Room 101**
Beyond inhibition: Effects of collaborative remembering on agreement, meaning-making, and memory qualities

Celia Harris

The cognitive literature on collaborative remembering has largely focused on how much is remembered, typically by groups of strangers collaborating to remember non-personal word lists. In this symposium, we focus on broader effects of collaboration in terms of accuracy, quantity, recall processes, and quality of recall. Across talks, we report research focused on: effects of collaboration beyond amount recalled; more meaningful material; and groups with relationships outside the experimental context. We seek to integrate findings from laboratory research with the ways in which people share memories in everyday life, and to consider the complexities and nuances of collaborative remembering.

Stealing memories: The egocentric source monitoring bias following collaborative remembering

Ira E. Hyman Jr., Madeline Jalbert, Alia Wulff

Collaborative remembering allows people to reach an agreed upon version of the past. But following collaborative remembering, can people track the original source of memories? Dyads individually studied information containing partially overlapping material. During collaborative remembering, some were asked to only record information that both studied whereas others were asked to include all information. On a subsequent source monitoring test, participants displayed an egocentric pattern of errors: They more often claimed their partner’s memories as their own than they attributed their memories to their partner. Stealing memories, the egocentric source monitoring bias, may be a basic response following collaborative remembering.

Together or apart: Effects of collaboration between police officers on incident reports

Annelies Vredeveldt, Linda Kesteloo, Peter J. van Koppen

We examined differences between collaborative and individual police reports. Pairs of police officers wrote two incident reports about an interactive case training, one individually and one collaboratively. Collaborative reports contained significantly less information than the sum of individual reports, with no difference in errors. Pairs who had written an individual report prior to collaboration made significantly fewer errors in the collaborative report. Crucially, the completeness of the report depended on retrieval strategies used by the partners. Pairs who acknowledged, repeated, rephrased, elaborated and double-checked details, reported significantly more information in their collaborative report. Theoretical and practical implications will be discussed.

Mothers and friends as listeners for memory narration

Monisha Pasupathi, K. C. McLean, T. L. Weeks

Understanding how different listeners shape memories in divergent ways are important to consider across development. We present data addressing 1) Who are the primary audiences for memory narration? 2) Do these audiences create distinct rehearsal contexts?

Paper Session

Chair: Celia Harris

What we want to forget

Cassandra Burton-Wood, Deryn Strange, Anne Scharling Rasmussen, Maryanne Garry

Negative memories are associated with the maintenance of disorders such as depression, anxiety, and post-traumatic stress disorder. But if people could choose between forgetting their negative experience and merely knowing it had happened, what would they prefer? To answer this question we asked people how likely they would be to erase a negative memory if they could retain

And 3) Do the narratives told to these distinct audiences differ? Our data show a shift from parents (especially mothers) to friends across adolescence. As listeners, mothers are viewed as more interested, attentive, and engaged but less agreeable and open listeners than are friends. In line with these differences, people tell different stories, and in different ways, to mothers and friends.

“Going episodic”: Collaborative inhibition and facilitation in older couples

Celia B. Harris, Amanda J. Barnier, John Sutton, Paul G. Keil, and Roger Dixon

We tested the effects of collaborative recall in older, long-married couples who remembered a non-personal word list and a personal semantic list of shared trips. We found collaborative inhibition across both tasks when scored strictly as number of list items recalled. However, we found collaborative facilitation of specific episodic details on the personal semantic list, and for collaborating couples there was a trade-off between recall of specific episodic details and list recall. We discuss these results in terms of the functions of shared remembering, and what constitutes memory success, particularly for intimate groups and for older adults.

Discussant Amanda Barnier

the knowledge that it happened. We predict that, under these conditions, people will readily erase the negative experience.

Collaboration in prospective memory: Are couples better than strangers?

Catherine A. Browning, Celia B. Harris, Amanda J. Barnier, Peter G. Rendell

Prospective memory (PM) is memory for future intentions and is undertaken every day within social interactions. Working together to remember the past produces

both positive and negative effects, however we know little about how collaboration affects PM. We tested whether young-adult strangers (Experiment 1) and young-adult couples (Experiment 2) working together on a controlled PM task “Virtual Week”, would demonstrate the typical negative effects (“collaborative inhibition”) found for episodic recall. We found collaborating stranger-pairs performed more poorly than separate individual performance would predict, however collaborating couples eliminated the collaborative inhibition effect. Analysis of transcripts identified effective collaborative PM processes.

Collaborative processes in autobiographical memory recall by pairs of strangers, friends, and siblings

Amanda Selwood, Amanda Barnier, John Sutton, Celia Harris

We frequently recall autobiographical memories with people we know well or less well and who may or may not share knowledge of the recalled events. Differences in acquaintance and knowledge distribution were apparent in our comparison of strangers’, friends’ and siblings’ use of collaborative processes in recalling autobiographical memories. For instance, cuing was successfully employed even by strangers recalling events only experienced by one partner. Other processes reflected the higher intimacy, shared knowledge and expertise of friends and siblings recalling shared events. Thus collaborative processes may reveal how intimacy, shared knowledge and expertise shape collaborative recall in different dyads.

Symposium

Room 020

Decision making under uncertainty: The case of climate change

Stephan Lewandowsky

Many global challenges are accompanied by seemingly irreducible uncertainties. This is particularly apparent in the case of climate change, where political, economic, and residual scientific uncertainties combine to burden decision makers with a challenging landscape. This symposium examines the role of various sources of uncertainty in climate decision making, and how uncertainty might be best communicated to policy makers and the public. The symposium shows that uncertainty can often be harnessed into knowledge that provide strong constraints to decision makers.

Normative vs. cognitive construals of uncertainty

Stephan Lewandowsky, James Risbey, Ben Newell, Michael Smithson, Luke Somerwill

We report an ordinal analysis (i.e., statements of the form “greater than”) of uncertainty within the climate system. This analysis is not sensitive to people’s cultural cognition or subjective risk perceptions and reveals that greater uncertainty (i.e., “greater than expected”) provides greater impetus for mitigative action. This normative result stands in contrast to people’s tendency to view uncertainty as a stimulus for “wishful thinking”, and hence a reduced impetus for mitigative action. We report data from experiments in which uncertainty is manipulated and wishful thinking is elicited and contrast people’s responses to the normative implications.

What makes for compelling science? The role of evidential diversity

Brett K. Hayes, Arthur Kary, Ben R. Newell

Three studies examined the impact of evidential diversity on lay evaluations of scientific claims about climate change and public health. Participants read scientific arguments containing two facts on each of three dimensions (geographical, socio-cultural, temporal) and rated the extent to which these supported a general claim (e.g., “global sea levels are rising”). Facts were drawn from diverse locations, societies and time periods or from similar points on the dimensions. In each study, diverse evidence on one dimension increased perceived support for scientific claims, but the critical dimension differed between domains (geographical for climate change; socio-cultural for health).

The occasional inescapability of an uncertain future

Timothy Ballard, Stephan Lewandowsky

Climate change projections necessarily involve uncertainty. Projections typically express the uncertainty in the effects of climate change (e.g., “Temperature will rise by between 1 and 3 degrees by 2050”). However, recent work has found that projections expressing uncertainty in timeframe (e.g., “Temperature will rise by 2 degrees by between 2040 and 2060”) can be more effective, because they focus on when,

not if. This work has considerable implications for communicating the climate change risks to the general public. We describe recent efforts to replicate and extend this finding, as well as to identify boundary conditions.

Regulatory inertia in climate change-decision-making and the role of folk epistemologies of science in turning uncertainty into mistrust

David Mercer

Whilst public mistrust in the science of AGW can be explained, in part by the ‘success’ of vigorous promotional efforts of various right political interest groups, and enhanced by historically idiosyncratic patterns of public uptake and interpretation of AGW science, we also need to consider whether some of the inadequate ways the philosophy of science and science policy are publicly articulated, by both sceptics and those promoting the AGW scientific consensus, may also be a factor contributing to scientific uncertainty drifting into public mistrust. Particular attention will be paid to role played by appeals in public discourse to inadequate pop-philosophy of science (folk-epistemologies especially Popperian inspired ones) to legitimize AGW, and the persistence of the questionable ‘imaginary’ of science policy needing to follow linear processes (get the science completely sorted then move into the policy-making phase).

Paper Session

Chair: Stephan Lewandowsky

When power is not enough: Considering pre-study probability in the evaluation of scientific evidence

David Moreau

Recent failed attempts to replicate numerous findings in psychology have raised concerns about methodological practices in the behavioral sciences, in particular about the evaluation of cumulative evidence. Here, we present a new perspective to assess experiments and replications by considering differences in pre-study probability. When

pre-study probability is unaccounted for and effect sizes are distributed in a discrete rather than continuous manner, meta-analyses can become unreliable, a situation more common than one might think. Correcting for pre-study probability when combining effect sizes in meta-analyses allows accounting for the probability of an effect, so as to better evaluate cumulative evidence.

Predictors of perceived disaster impact in persons affected by the 2010-2011 Canterbury earthquakes: Pre and post disaster profiles

Joanne Allen, Fiona Alpass, Christine Stephens

Evaluations of the effects of natural disasters on health often rely on post-disaster assessment. It is unclear whether the long-term impact of disasters reflects pre-disaster strengths and vulnerabilities. Post-disaster outcomes were examined in light of pre-event vulnerabilities utilising data from a biennial longitudinal survey of older New Zealand residents. The 2010 wave concluded prior to an earthquake series spanning 2010-2011. The 2012 and 2014 surveys were augmented to include assessments of disaster exposure and impact. Pre-post disaster health profiles were examined. Pre-disaster mental health and social health were vulnerability factors for long-term negative perceived post-disaster outcomes.

Cross-cultural examination of beliefs about cause and treatment for Bulimia Nervosa in Japanese and Australian women

Rachel Dryer, Emmanuel Manalo, Yuri Uesaka, Graham Tyson

Beliefs about the causes and treatment for Bulimia Nervosa held by Australian and Japanese women were examined in 403 Japanese (Mage = 20.49, SD = 3.11) and 256

Australian (Mage = 25.57, SD = 4.99) women. Different belief structures for both cause and treatment were found for the two groups. Moreover, beliefs about the cause aligned with beliefs about treatment for this condition. The different belief structures obtained for the two groups have implications for cross-cultural delivery of intervention programs. Approaches developed in one culture may not necessarily be directly applicable to other cultures – at least not without some modifications.

First alcohol memories of individuals with the lived experience of homelessness and alcohol use problems

Seema L. Clifasefi

This study explored the qualitative nature of first alcohol memories as recalled by individuals with lived experience of homelessness and alcohol use problems. Semi-structured interviews (N=39) were conducted asking individuals about their first alcohol experience and age of first drink. Participants reported a mean age of first drink of 12.2 years (SD=4.9). Data were categorized into three primary themes: 1) precursors to drinking; 2) drinking initiation; 3) reactions to first alcohol experience. Better understanding of these early alcohol experiences may help elucidate factors that contribute to, maintain, and/or precipitate both alcohol use and homelessness.

Symposium

Room 022

Current investigations in immediate eyewitness recall

Helen Paterson

Research shows that forgetting occurs very rapidly and that memory is fallible. Therefore, there is a critical need to preserve memory accuracy in the immediate aftermath of an incident. In the current symposium, we will discuss recent research investigating a range of factors associated with contemporaneous eyewitness accounts. The first two presentations will focus on how the event

type and format of an immediate recall tool affect memory accuracy and completeness. Next, we will look at how immediate eyewitness accounts can be used as a tool for deception detection. Finally, we will focus on how jurors perceive contemporaneous eyewitness accounts.

“Wait! When did he say that again?” Adult memory for details of reoccurring events**Celine van Golde**

Whilst there is an abundance of research on children’s memories for repeated events, similar research with adults is sparse. In our study adult participants watched four separate videos of bullying over a 4 week time period. Witnesses in the experimental condition were asked to record their account immediately after viewing each video. Witnesses in the control condition did not complete this task. One month after the initial video presentation, all participants were questioned about the four incidents. Details of what was reported in the different conditions are compared and results will be discussed.

Optimal immediate recall conditions for enhanced eyewitness memory: Do test format and response modality matter?**Curie Suk, Helen Paterson**

Research has yielded inconsistent findings regarding the effectiveness of immediate recall on subsequent memory and such discrepancies have been attributable to methodological factors. The present study examined the effects of test format (free- vs. cued-recall) and response modality of immediate recall (written vs. spoken) on eyewitness memory. Irrespective of recall condition, participants who completed immediate recall produced more accurate and complete accounts than the no-recall control group after a two-week delay. Free-recall advantage and writing superiority were also found in terms of accuracy and completeness, respectively, at the time of providing an initial account.

Immediate written recall as a tool to facilitate the verbal assessment of eyewitness credibility in forensic settings**Anita van Zwieten, Helen M. Paterson, Pauline Howie**

Differentiating between truthful and fabricated eyewitness statements is a

challenge for police, particularly when delays occur between the event and interview. We investigated whether undertaking an immediate written recall using the Self-Administered Interview (SAI) would impact the discriminability of credibility assessment in a delayed interview, and whether witness credibility could be classified using the SAI itself. Students either witnessed or imagined a theft, and then half completed an immediate SAI recall. All were interviewed one week later. Although witness credibility could be classified using the SAI, it did not impact the discriminability of credibility assessment in the delayed interview.

The effect of contemporaneous notes upon juror decision-making**Sarah Deck, Helen Paterson**

Given the fallibility of eyewitness memory, recent research has begun to consider contemporaneous notes as a means of improving eyewitness memory. These refer to witness accounts made at the time or immediately after a critical event. While empirical evidence indicates that contemporaneous notes improve the accuracy of witness testimony, the impact of contemporaneous notes within the legal system had not been examined prior to this investigation. The present study investigates the impact of contemporaneous notes upon juror decisions. Mock-jurors read a criminal trial transcript and made a series of judgements about the case. Results were interpreted in line with relevant literature from the fields of forensic and cognitive psychology.

Discussant Helen Paterson

In this talk I will summarise the various findings presented in this symposium, focusing on relevant themes addressed throughout. Next, I will discuss important avenues to explore in future research examining the impact of immediate eyewitness recall.

Paper Session

Chair: Helen Paterson

Pseudo-suspects' beliefs about the likelihood of being identified in two different eyewitness identification procedures

Grace Denham, Maryanne Garry, Saul Kassin

Not all eyewitness identification procedures are created equal. When shown a single photo of a suspect (show-up), eyewitnesses are more likely to wrongly identify an innocent suspect compared to eyewitnesses who see a photo array of multiple people (lineup). Police sometimes compound this problem by asking suspects to waive their rights to a lineup, in favour of a show-up. Why would suspects waive their rights? To answer this question, we asked subjects to mentally role-play either committing a crime or a non-criminal act, and to choose between appearing in a lineup or a show-up during an investigation.

Examining misinformation and salience effects for memory of criminal conversations

Nicholas Formosa, Ben W. Morrison

Research investigating the fallibility of memory in witness testimonies has demonstrated that misleading Post-Event Information (PEI) will often hinder accurate recall of events. Existing research, however, is largely limited to visual stimuli and

eyewitness testimony. This study investigated the impact of PEI and the potential presence of salience effects (e.g., weapons focus) in the recall of auditory stimuli found in a mock criminal conversation. Participants were exposed one of two types of misinformation (either misleading PEI or omitted information), during either the encoding or retrieval stage of information processing. While results failed to support an inhibitory effect of PEI for

Does taking photos affect what we remember?

Sophie J. Nightingale, Kimberley A. Wade, Derrick G. Watson, Andrew Mills, Rachel Zajac, Linda A. Henkel, Maryanne Garry

Digitalization is affecting the way we think, remember and behave. A recent study found that taking photos of items during a museum tour impaired memory for those items compared to when the items were only observed (Henkel, 2014). Yet across six experiments, we were unable to replicate this photo-taking impairment effect. A meta-analysis of the mean difference in accuracy between the photo-taking and observe-only conditions in our six experiments and Henkel's two original experiments revealed an estimated effect size of 0.01 [-0.03, 0.04]. The findings suggest that there may be no memory impairment associated with taking photos.

Paper Session

Room 028

Chair: Guillermo Campitelli

The relationship between general cognitive abilities and chess expertise as a function of age: A mathematical simulation and applications

Guillermo Campitelli

In expertise research it has been shown that there is a relationship between general

cognitive abilities and chess skill, which is moderated by age (i.e., the relationship is higher in children than in adults). Campitelli, Gobet and Bilalić (2014) presented a mathematical simulation of a model that attempted to capture this and four other phenomena. The simulation showed that the model captured the other phenomena, but not the age moderation. In this presentation I will show an improved model that better

captures this age effect. I will draw conclusions regarding applications of this research to training and education.

Dual mechanisms of cognitive control: Experimentally induced shifts in proactive and reactive control in the AX-CPT

Andrew R. A. Conway, Corentin Gonthier, Brooke N. Macnamara, Michael Chow, Todd S. Braver

According to the Dual Mechanisms of Control (DMC) framework (Braver, 2012) there are two distinct modes of cognitive control: proactive and reactive. This account has been supported by a large number of studies using the AX-CPT paradigm that have demonstrated individual differences in the use of the two control modes. Yet there has been little investigation of task manipulations that can experimentally modulate the use of proactive and reactive control. In a series of three experiments we demonstrate systematic shifts towards the utilization of proactive control, via strategy training, and towards the utilization of reactive control, via a no-go manipulation.

General cognitive deficits impair social cognition

Katharina Foerster, Leona V. Domes, Tracy M. Air, Bernhard T. Baune

Social cognition is impaired in patients with major depressive disorder (MDD). This complex perceptive process needs sufficient basal cognitive abilities (e.g. attention, memory and semantic fluency). We hypothesized general cognition deficits measured with the Repeatable Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) to impair performance in various social cognition tasks measured with the Wechsler Advanced Clinical Solutions (WAIS-ACS). Semantic fluency and delayed memory predicted performance in three different social perception tasks. Above all, depressive status did not impact social cognition significantly. Further investigations of social cognition deficits in MDD should focus on possible underlying mechanisms like motivational deficits.

The effect of true and false feedback on the detection of targets in a low-prevalence visual search task

Matthew A. Palmer, Catherine Bishop, Neil Brewer, Jason McCarley

When targets are rare, performance on visual search tasks is notoriously poor. This study examined the effect of different training interventions to improve performance in low-prevalence visual search tasks. Participants completed a security screening task, deciding if a target knife was present or absent in each of 1200 x-ray images of luggage (2.5% actually contained a target). Performance was improved by training phases that involved higher prevalence of targets and accurate feedback. However, performance was impaired by training phases with false feedback designed to promote a more lenient decision criterion.

Memory load at encoding as a moderator of the negation effect

Rachel Dianiska, Christian Meissner

Research has shown that one's response to a yes-no question can differentially influence one's memory (e.g., Mayo, Schul, & Rosenthal, 2014). We manipulated the amount of memory load at encoding (present or not present) and the correct response elicited (yes or no) to feature statements about objects studied in a list-learning paradigm. We observed a significant negation effect, such that object images associated with "no" responses produced more errors in memory, compared to objects associated with "yes" responses. While greater memory load at encoding did slightly increase the negation effect, it failed to significantly moderate the effect.

Behavioural and neural adaptation of win-stay but not lose-shift strategies as a function of outcome value

Lewis Forder, **Ben Dyson**

Irrational decision making associated with Rock, Paper, Scissors (RPS) reveal a greater reliance on lose-shift relative to win-stay heuristics. In an attempt to modulate these heuristics, participants completed baseline, win-heavy and lose-heavy conditions where

the value of outcome varied. The use of lose-switch failed to modulate, whereas the use of win-stay increased in both win-heavy and lose-heavy conditions. ERP data also revealed feedback-related negativity (FRN) was more variable within win trials. The data suggest the mechanisms of lose-shift are inflexible and thus aligned with System 1, whereas the mechanisms associated with win-stay are flexible and thus aligned with System 2.

Processing indexical speech information requires working memory resources
Mark Antoniou

Although theories of speech processing once considered indexical information to be noise, filtered away during the act of perception, numerous studies have demonstrated that it exerts a reliable processing cost. However, little attention has been paid to the role played by individual differences in domain-general cognitive abilities. We took the seminal experimental design of Conrad and Hull's (1964) acoustic confusion study from the working memory literature and adapted it for spoken language stimuli. Results show

that working memory plays an important role in indexical processing, which have important theoretical implications for theories of speech processing.

The influence of primed positive and negative emotion on boundary errors for neutral images

Deanne Green, Melanie Takarangi

People often remember scenes as having more extended boundaries: boundary extension. However people sometimes remember narrower boundaries-boundary restriction-when the image is negative. Yet, the data on boundary restriction are mixed, and we don't know what is driving the phenomenon. In the present study, we altered the valence of ambiguous images using positive and negative emotion primes, to isolate the influence of valence and arousal from other features of the images. Regardless of valence, people made more boundary extension errors than boundary restriction errors. Our data indicate that boundary restriction may not depend on image valence.

Paper Session

Room 030

Chair: James Dunn

Facing a difficult task: Integrating image variation to find faces in crowds

James Dunn, Richard Kemp, David White

People often faced with the task of finding target faces in crowds. In studies of human visual search performance, this process is said to rely on a search template, which contains a description of the target. A template must describe features that distinguish the target and make it stand out from the crowd. Here, we asked whether multiple images of a target face can be integrated to form robust search templates. Results suggest that exposure to variability produce robust search templates that improve visual search performance.

Context cues enhance face recognition performance: Can we stretch the effect?

Nina Tupper, Jim Sauer, Melanie Sauerland, Isabel Fu, and Lorraine Hope

When participants study pairs of faces, one of the faces can be used at test to enhance participants' recognition accuracy: Compared to no cues, correct face-cues improve accuracy, while incorrect face-cues reduce accuracy. We test the limits of this effect by adding two conditions (single-face control, four-face condition) to the study-phase. We test boundary conditions to identify 1) whether previously-reported effects reflect a benefit of correct cuing, a detriment of incorrect cuing, or both, and 2) how cuing effects vary as a function of the number of cues to be encoded. Results are discussed in the context of cued-recognition.

A comparison between the British video lineup and the 48-person lineup**Avraham Levi**

Participants were shown a two-minute video. At least an hour later they viewed either a British video lineup or a 48-person lineup, either with or without the target. There was no difference in either number of identifications in the target-present lineup or in the number of mistaken choices in the target-absent lineup. Because the British lineup consists of 10 people compared to the 48 in the 48-person lineup, the probability of a mistaken identification in the former is a lot greater.

Was the benefit of high similarity lineup fillers a methodological artefact?**Ryan J. Fitzgerald, Chris Oriet**

The guilt or innocence of a suspect is traditionally simulated in eyewitness identification experiments using a dual-lineup paradigm (one culprit and two lineups). We examined lineup member similarity using either a dual-lineup paradigm or a single-lineup paradigm (two culprits and one lineup). With the dual-lineup paradigm, increasing similarity reduced guilty suspect identifications and also reduced innocent suspect misidentifications. Conversely, the single-lineup paradigm indicated that increasing similarity reduced guilty suspect identifications, but had little effect on innocent suspect misidentifications. Our findings suggest the benefit of high similarity fillers in previous research may have been an artefact of the experimental paradigm.

Non-probative photos and the backfire effect**Andrew Huebert, Eryn Newman, Marryanne Garry, Daniel Bernstein**

When people see claims accompanied by related photos, the combination increases belief that the claims are true. The photos need not provide any real evidence that the claims are true; they simply need to be related to ideas in the claims. This “truthiness” effect persists even when participants see the claims again later without photos. We examined the extent to

which this truthiness effect occurs when people initially learn if each claim is true versus false. We found that when people had this prior knowledge, photos did not increase truthiness. Photos instead helped participants remember whether claims were true or false.

Practitioner views on obtaining information from reluctant witnesses**Rebecca Wheeler, Fiona Gabbert, Stephen Clayman, Sian Jones**

A reluctant witness is one who is believed to have witnessed an offence, or events closely connected to it, but who is reluctant to become involved in the investigative process. Although recognised in official documentation as a witness category, there is very little research on reluctant witnesses. This project, in collaboration with two large UK police forces surveys the scale of the problem, and presents some key challenges faced by police officers. Early analyses suggest police concerns around gaining both information and evidence from such witnesses, and highlights the role psychology can play in supporting police officers.

Cognitive interview in Indonesian: When retrieval cues might not be enough**Dian Dia-an Muniroh, Georgina Heydon**

This paper explores which Cognitive Interview (CI) instructions in Indonesian can elicit accurate information from witnesses. This is mainly driven by the fact that training in the CI technique is increasingly being offered to Indonesian police investigators but such courses are often presented in English. Phrasing the CI instructions is important because it might affect the memory retrieval process and the quality of information provided by interviewees. To achieve the objective, a Delphi technique employing a three-round iterative process was used to generate consensus among 23 experts. In Indonesian contexts, the best CI instructions would contain retrieval plus interpersonal cues.

Science-based methods of interrogation: A training evaluation and field assessment

Melissa Russano, **Christian Meissner**,
Dominick Atkinson, Rachel Dianiska

This paper will present the results of an evaluation effort of a science-based interrogation training supported by the High-Value Detainee Interrogation Group and conducted by a scientist-practitioner team. Criminal investigators from the U.S. Air Force Office of Special Investigations were trained

on an empirically-derived model of interrogation with a primary focus on the use of elements of motivational interviewing and the cognitive interview. Pre- and post-training suspect interviews were coded for the use of science-based interrogation methods, traditional accusatorial methods, and suspect responses. Investigators use of science-based methods increased post-training, and these methods predicted suspect cooperation more detailed suspect accounts.

12:30pm – 2:00pm

Lunch

12:30pm – 1:15pm

Student Caucus Meeting and Elections

Room 101

1:15pm – 2:00pm

Board Meeting

Room 101

2:00pm – 3:45pm

Symposium

Room 101

Eyewitness identification's young scientists

Neil Brewer

This invited symposium showcases research in the area of eyewitness identification from five current doctoral students from Australia, Europe and Canada. The topics of the presentations span a number of issues that have attracted little systematic attention from researchers in the eyewitness identification field. The topics include examinations of sequential effects when showups are conducted for multiple-perpetrator crimes, bystander identifications by adolescent witnesses, the impact of identification decision consequences on witness's cognitions and behaviour, and several evaluations of some novel approaches to conducting identification tests.

Identification decisions for multi-perpetrator crimes: Testing for sequential effects in multiple showup decisions

Nina Tupper, Melanie Sauerland, Jim Sauer, Steve Charman, Lorraine Hope

Research demonstrates that a current recognition decision can be influenced by previous ones, meaning that the multiple responses are not independent. Two experiments test whether initial eyewitness recognition decisions impact the accuracy and choosing behaviour for subsequent show-up identification decisions. Participants watched a mock-crime video and later made showup identification decisions for three suspects corresponding to the three perpetrators in the video. Results of both experiments revealed some evidence for sequential effects for choosing, but the effect was inconsistent. Follow-up experiments test whether methodological differences between the recognition and the eyewitness

identification paradigms underpin the inconsistent findings.

Don't omit adolescents in eyewitness research: Adolescents are more likely to misidentify an innocent bystander

Nathalie Brackmann, Melanie Sauerland, Henry Otgaar

Innocent bystanders may become suspects of an investigation and end up in lineups. Research has shown detrimental effects of previous bystander exposure on identification performance, but it is unknown if and how this effect differs for different age groups. In the present study, 7-10-, 11-13-, 14-17-year-olds, and adults (N = 433), watched a wallet theft video. According to Fuzzy-Trace and Associative Activation Theories, children store less relational gist information. We expected that the immaturity of children's knowledge base results in an age decrease in bystander misidentifications. Adolescents were most likely to misidentify the innocent bystander.

The consequences of identification decisions: Effects on witnesses' cognitions and behaviour (continued.)

Carmen Lucas, Neil Brewer

Capturing the consequences of real-life identification decisions in a laboratory is difficult. Yet there are theoretical grounds for predicting that consequences can influence witnesses' lineup choices, and believing it is possible to examine this issue in the laboratory. In two experiments, we were unable to detect any impact of hypothetical consequence perceptions on identification decisions. We report a third experiment (N=512), where we examined how effects may be limited to cases where the witness is unsure about whether the culprit is in the lineup. The implications of these experiments for investigating the relationship between

consequences and lineup decisions are discussed.

New and improved(?) lineup procedures

Mario Baldassari, D. Stephen Lindsay

We tested new methods for lineup presentation in an effort to increase witness discrimination. We compared identification accuracy when all faces in a simultaneous lineup were static photos versus when they were looping videos showing faces from multiple perspectives. Video lineups did not outperform photo lineups, but did result in some differences in confidence. We also designed a lineup presentation similar to the Concealed Information Test from the literature on lie detection in order to identify criminals when witnesses are not willing to ID them overtly. Reaction time results did not identify criminals, but preliminary EEG results are promising.

Assessing proxy memorial information using a repeated forced-choice lineup procedure

Kaila Bruer, Heather L. Price

The repeated forced-choice procedure (RFC; Bruer & Price, 2016) divides the identification task into a series of exhaustive binary comparisons (i.e., round-robin design). To understand the memorial information provided by these binary comparisons, we calculated indices that summarized witnesses' (451 children; 149 adults) responding during the RFC procedure. We then compared these indices against a newly developed model that approximates memory strength for a round-robin design. Using odds-ratios to compare the likelihood of outcomes in the model, we found evidence to support use of this model to estimate memory strength associated with an individual witness' lineup decision.

Paper Session

Chair: Neil Brewer

Should I trust you? Learning and memory of socially relevant information in Dementia

Stephanie Wong, Claire O'Callaghan, Fiona Kumfor, Greg Savage, John R. Hodges, Olivier Piguet, Michael Hornberger

Healthy adults typically show better memory for socially relevant compared to non-social information. We investigated this social relevance enhancement effect on memory in Alzheimer's disease (AD) and behavioural-variant frontotemporal dementia (bvFTD). Participants played a computerised 'trust game', where they invested virtual money with fictional individuals under social or non-social conditions. On a subsequent memory test, overall memory for the faces and behaviours of these individuals was attenuated in AD and bvFTD. Similar to age-matched controls however, both patient groups retained a significant social relevance enhancement effect on memory retrieval.

Our findings provide insights into memory for social information in dementia.

Eyewitness identification across the adult lifespan

Melissa F Colloff, Kimberley A Wade, John T Wixted

Older and middle-aged adults are frequently eyewitnesses. Yet, knowledge of how identification performance changes over the adult lifespan is sparse. We examined young (18–30 years), middle-aged (31–59 years) and older (60–95 years) adults' ability to identify culprits and gauge their accuracy. Ageing was associated with a genuine decline in recognition ability - discriminability - not an increased willingness to choose. Perhaps most strikingly, though, middle-aged and older adults were generally effective at regulating their confidence judgments to reflect the likely accuracy of their identification decisions. Model-fitting confirmed that the older adults fanned their decision criteria in an optimal manner.

Paper Session

Room 020

Chair: Emmanuel Manalo

Understanding student text and diagrammatic representations of what they have learned: What gets represented, how, and why?

Emmanuel Manalo, Chris Sheppard, Yuri Uesaka

This study examined students' text and diagrammatic representations of information, and whether the serial position (paragraph position in the passage) or the kind of content (e.g., mechanism, process) determine amount of representation. Participants were administered note taking and explanation writing tasks after reading one of two short passages, which were equivalent except in their topic and the

content of their paragraphs. Results of analysis of the amounts of text and diagrams students produced indicate that kinds of content, rather than serial position, influenced representational construction. Some kinds of content appeared to be more difficult to represent in text and/or diagrams.

Task-based measurement of students' learning strategy use and its relationship to interest in science.

Etsuko Tanaka, Emmanuel Manalo, Rachel Dryer

Previous research has pointed out that students' learning strategy use has significant effects on learning. However, most of these studies measured learning strategy use through self-report questionnaires, and it is

possible that such measures are affected by social desirability and/or insufficient accuracy of students' own perceptions. In the present study, students' learning strategy use was assessed through analyses of students' notes taken during a learning task. Also, relationships between learning strategy use and interest in science was examined. Interest in science has six subscales depending on its development, and which components of interest related to learning strategy use was revealed.

Positivity bias and the role of documentation and age in autobiographical memory recall

Katinka Dijkstra, Pekaar, K., Kemper, Z.

The positivity bias, a more positive evaluation of a memory now compared to back then, has been well established for older adults (Mather & Carstensen, 2005) but the role of documentation (photographs, social media, diaries) in autobiographical memory recall is relatively unexplored. An online study was conducted among younger and older adults who retrieved positive and negative memories from their childhood, five years ago, and 6 months ago to assess the positivity bias in greater detail. Results indicated a positivity bias in both age groups for negative memories retrieved. Moreover, documented memories were evaluated more positively than non-documented memories.

Reminiscence bumps in social media: A data-analytic approach

Jeffrey L. Foster, Peter Bland, Kate Crone, Daniel Gregg, Jenny Hoang, Leila Vergara, and Maryanne Garry

In this study, we asked whether the frequency of movies, books and songs that people choose to discuss on social media follow the movies, books and songs that were popular during those people's reminiscence bump years. To address this question, we identified twitter users whose ages had been publicly posted on the twitter platform, and using lists of the 10 most popular books, movies. and songs for each year from 1950-2015, we processed their tweets to find references to each, and mapped these mentions to each users age at

the time of popularity to generate reminiscence bump curves.

Poor sound, poor research: How the audio quality of conference talks and interviews affects research evaluation

Eryn Newman, Norbert Schwarz

Increasingly, scientific communications are recorded and made available online. While researchers carefully draft the words they use, the quality of the recording is at the mercy of the technical staff. Does it make a difference? In two experiments, we presented an identical conference talk or radio interview with high or low audio quality. Despite identical content, the research seemed less important and the speaker less intelligent when the audio quality was low.

Retrieval practice benefits students with Attention Deficit Disorder – but they still perform worse than matched controls

Jen Coane, Meredith E. Minear, Sarah C. Boland, Leah Cooney

Retrieval practice – testing as a study technique – has been identified as a robust memory modifier. Thirty-six individuals with ADD/ADHD and 36 matched controls completed four study-test cycles in which they learned Swahili-English word pairs. Two days later, a final cued recall test was administered. All participants showed robust learning during the encoding phase and repeated testing resulted in better performance at final recall than repeated study. Although students with ADD/ADHD benefited from testing as much as controls, they still performed significantly worse overall, suggesting that although testing is beneficial, it is not sufficient to compensate for performance deficits.

Death priming in investigations: The effects on professional and racial out-group derogation

Laure Brimbal

This study applied Terror Management Theory (TMT) to decision making in investigations. Participants were asked to think about their own death (MS) or not and

then evaluate the suspect in a police case file. Professional group membership was manipulated (either police investigator or journalist) for participants, and racial group status was manipulated by varying the race

of the suspect in the case. Results were mixed but generally supported TMT. However, the findings raised questions about the particular norms that taking on the role of a police investigator might prime.

Symposium

Room 022

New issues and new perspectives on flashbulb memory research

Olivier Luminet

About forty years have passed since the 1977 pioneering work on Flashbulb memory (FBMs) by Brown and Kulik. Investigation of the topic has been reframed in the last years, to take into account the role of contextual factors other than the traditionally associated variables (social media, communicative practices) and the evolution of methodological approaches (historical research, experimental paradigms). In the present symposium we propose four empirical contributions with a discussant's review. A central issue will be to discuss recent findings on FBMs and the consequent advances for autobiographical memory models.

Flashbulb memories on facebook: Using social media behaviour in flashbulb memory research

Jennifer M. Talarico

Flashbulb memories are most reliably characterized by highly detailed memory reports, vivid subjective experience, and strong confidence in the accuracy of the memory. Personal significance is an essential predictor of these characteristics. Facebook data (e.g., status updates, changes to profile pictures, sharing news stories, etc.) were used to distinguish people who did or did not publicly express their identification with the victims of the terrorist attacks in Paris on November 13, 2015. Individuals who did so should have more detailed, more vivid, and more confidently held flashbulb memories than those individuals who did not engage in these behaviours.

"Never forget": An examination of the intergenerational transmission of 9/11 event and flashbulb memories

Shanique Meyler, **Charles B. Stone**

Little is known about the transmission from one generation to the next of long lasting memories, such as those of 9/11 and the flashbulb memories it forged. What is transferred and under what circumstances? With these questions in mind, we examined the memories of those who lived through 9/11 and their children. We were interested in what the children knew about 9/11 and their parents' flashbulb memories, how they learned this information, and the extent to which it shapes their identity. Our results are discussed in terms of the importance of cultural and communicative memories in transmitting memories across generations.

Flashbulb memories and historical events: Psychological and historical perspectives

Olivier Luminet, Rose Spijkerman

Flashbulb memories (FBMs) have been studied only in psychology. However, they relate often to events that became afterwards historical. It is actually possible that the conditions needed for FBMs (high surprise, high importance/consequences, high rehearsal) increase the probability that some events become historical and/or that when formed, strong FBMs can contribute to better memories for historical events. We examine how psychologists and historians can benefit from a mutual investment in research in this area by reviewing theoretical and methodological advantages for a more active collaboration. Memoirs and diaries about the end of WWII in Belgium will illustrate the presentation.

Discussant Qi Wang

Paper Session

Chair: Olivier Luminet

Autobiographical memories: (Mostly) selfless and (almost always) vivid

Norman R. Brown, Liangzi Shi, Phillip Reimer, Oliver Schweickart

Across six studies, we compared properties of word-cued autobiographical memories, free-recalled autobiographical memories, self-nominated important life events and one transition experienced by all participants (entering university). Depending on the study, the word-cued and free-recalled memories were either very recent (no more than a week old), recent (2 weeks to 12 months), or older (at least 12 months). We found that memories received high vividness ratings regardless of condition. However, only the most important of the self-nominated memories (and entering university) scored high on self-relevance, goal-relevance and life-story membership. We conclude by considering theoretical implications of these findings.

Support for emotion regulation as the fourth function of autobiographical memory

Steve M. J. Janssen, Katinka Dijkstra

Previous research has shown that people think and talk about their personal past for self-continuity, social-bonding and directing-behaviour purposes. However, an additional function of autobiographical memory might

be emotion regulation. Two studies were conducted to examine this proposition. Whereas the first study showed that emotion regulation does not serve the other functions but has a unique contribution to remembering the personal past, the second study showed that the new emotion-regulation subscale receives similar usage ratings and has similar psychometric properties as the existing subscales. Both studies offer support for emotion regulation as the fourth function of autobiographical memory.

Emotional profile of autobiographical memory is prone to family transmission and imitates cultural life script

Veronika Nourkova

The study examined the hypothesis that individuals construct an emotional profile of autobiographical memory (AM) imitating the typical cultural life scripts in conjunction with profiles acquired from parents. 336 participants (292 among them were students and their parents) represented their entire lives and lives of a typical person as lifelines. The analysis revealed that emotional profile of AM is highly positive (72% of positive recollections). Lifelines of a typical person were more positive (76%). Emotional profile of AM in students was predicted by their lifelines for a typical person, the lifelines drawn for a parent, and parental lifelines.

Symposium

Room 028

Motivated rejection of (climate) science: causes, tools, and effects

Stephan Lewandowsky

Although the relevant scientific community long ago settled on the conclusion that human economic activities are causing climate change through the emission of greenhouse gases, a small but vocal number of dissenters remains unswayed by the

evidence. This symposium examines the cognitive and motivational factors that underlie the rejection of scientific evidence regarding climate change and the rejection of scientific evidence in other contested domains.

Straightening out the slant, misleading headlines and dubious scientific claims
Ullrich Ecker

Misinformation that fosters rejection of scientific evidence can come in various guises, ranging from intentional disinformation to misleading headlines to naïve but sensationalized media claims. In this talk, I will demonstrate how misinformation can affect readers' understanding as well as the inferences they draw and the decisions they make. I will discuss how misleading statements and dubious science claims can be revoked through refutations, addressing factors that influence the refutation's efficacy, including perceived source expertise, as well as the question of whether there is an ideal number of counterarguments.

Neutralising misinformation through inoculation: Exposing misleading argumentation techniques reduces their influence

John Cook, Stephan Lewandowsky, Ullrich Ecker

This study experimentally explored the impact of misinformation and tested several pre-emptive interventions designed to reduce the influence of misinformation. We found that misinformation that confuses people about the level of scientific agreement regarding anthropogenic global warming (AGW) has a polarizing effect, with political conservatives reducing belief in AGW whereas political liberals increase their belief in AGW. However, inoculating messages that explain the technique used in the misinformation are effective in neutralizing misinformation effects. We recommend that science communication messages should take into account ways that scientific content can be distorted, and include pre-emptive inoculation messages.

Motivated rejection of climate science? Clues from a meta-analysis on the predictors of skepticism

Matthew Hornsey, E. Harris, P. G. Bain, K. S. Fielding

This talk summarizes the results of the first meta-analysis of the correlates of skepticism about climate change (Nature Climate Change, 2016). Twenty-six variables were examined by synthesizing 25 polls and 171 academic studies across 56 nations (combined N=217 337). It emerged that many intuitively appealing variables (such as education, subjective knowledge, and experience of extreme weather events) were overshadowed in predictive power by values, ideologies, worldviews and political orientation. These findings are discussed with reference to a recently devised theoretical model of the drivers of motivated rejection of science. Implications for converting skeptics to the climate change cause are also

Public awareness of the scientific consensus on climate

Lawrence Hamilton

Questions about anthropogenic climate change (ACC) and the related scientific consensus elicit wide ideological divisions on US surveys. Statements mentioning the consensus have been contentious in science communication, with some researchers arguing for consensus awareness as a gateway cognition that leads to greater acceptance of ACC, but others characterizing consensus messaging as a counterproductive tactic that exacerbates polarization. A series of surveys repeating one consensus question over 2010–2016 provide empirical tests. Public awareness of the scientific consensus rose over this period, while polarization declined, in a gradual (not event-driven) pattern suggesting cumulative effects from many studies and scientists.

Climate denial: Tools and effects **Stephan Lewandowsky**

Although the relevant scientific community long ago settled on the conclusion that human economic activities are causing climate change through the emission of greenhouse gases, a small but vocal number of dissenters remains unswayed by the

evidence. What are the tools by which this vocal minority seeks to influence public discourse? What effects does denial have on the public and on the scientific community itself? I argue that denial may have denied the public the right to be adequately informed about the risks it is facing and may have unduly influenced the course of science.

Paper Session

Chair: Stephan Lewandowsky

Detecting deceptive emails in a simulated office environment: The dangers of distraction

Helen Jones, John Towse, Nicholas Race, Timothy Harrison

Every successful phishing attack arises from some degree of human error. Yet little research has explored the psychological influences behind these errors in decision-making. Previously we have studied users making explicit choices about a set of emails. We report here an office simulation scenario that incorporates email management, whilst ensuring participants remain naïve to the purpose of the study. Based on a previous study, we consider cognitive reflection, inhibition, and sensation-seeking, as cognitive influences on response likelihood to phishing emails. In addition, we manipulated time pressure, priming of phishing emails, and email relevance as situational predictors of email management behaviour.

Predicting beauty ratings and preference reversals for representational and abstract paintings

Glen E. Bodner, Katrina H. McDougall, David M. Sidhu

We investigated predictors of beauty ratings and preference reversals using representational and abstract paintings. In a ratings study, one group rated the beauty of one or the other set, and additional groups rated them on another dimension (e.g., complexity, emotionality). Several ratings were predictive of beauty ratings. In a reversal study, the same pairs of beauty-matched paintings were presented across two blocks. On each trial, participants chose the painting they felt was more beautiful. Preference reversals were surprisingly frequent, and several measures were predictive of reversals. Implications for the study of the aesthetic experience of beauty are discussed.

Paper Session

Room 030

Chair: Elizabeth Austin

Pointing the way forward: Preschoolers' and adults' comprehension of route direction information

Elizabeth Austin, Naomi Sweller, Penny Van Bergen

Speakers convey spatial route information both verbally through language and

nonverbally through gestures. It is unknown, however, how gestures influence listeners' comprehension and successful route navigation. Three studies examined the extent to which the gestures presented at encoding when listening to route directions would alter verbal recall and subsequent route navigation when measured at test. The results from these studies are an important step forward in understanding the role our

hands play in our listeners' cognition, particularly during spatial communication.

Developmental differences in playing Concentration

Osman Skjold Kingo, Trine Sonne, Peter Krøjgaard

The game "Concentration" poses a theoretical challenge since pre-school and young school children seem to do much better on this memory task compared to adults, than would be expected from existing data on cognitive development in general and memory development specifically. This study offers a well-controlled investigation of different memory strategies, at different ages (6, 8, adult) using a computer-controlled version of Concentration displayed on a touch-screen while eye-tracking participants. Results show that children and adults differ in the type of mistakes they make and that this pattern varies depending on the specific card stimuli (pictures, numbers or patterns).

Exploring the reliability and applicability of processing fluency effects in an educational context

Rebecca Wheeler, **Ian Mundy**

Song and Schwarz (2008) argued that the processing fluency of written instructions (i.e. the ease with which the instructions can be cognitively processed) affects the perceived difficulty of novel tasks, with implications for participants' motivation and self-efficacy. Following contradictory findings reported via the Open Science Framework, three studies aimed to replicate the original effect and then explore its utility in an applied educational context, by asking large samples ($N > 200$) of undergraduate students to appraise a hypothetical assignment brief presented in an easier-to-read or harder-to-read font. Results have implications for both the reliability and broader applicability of processing fluency effects.

Overcoming the distance in statistical teaching: The effect of instructional control mode on learning accuracy and confidence in online environments

Catherine Broomfield, Ben Morrison, Beatrice Hasler

The rapid growth in online education calls for concerted efforts in researching specific delivery techniques. The presentation discusses the findings from two empirical studies that sought to investigate the extent to which users' control impacted on learning and confidence levels when engaging multimedia platforms. Using the challenging topic of statistics as the learning domain, the hypothesis that users who were afforded greater control over their learning environment would be encumbered with a false sense of confidence in learning (i.e., the overconfidence hypothesis) was not supported. The current findings provide encouragement for the use of interactivity in multimedia environments.

Interviewing Taiwanese children about a staged event: A comparison of drawing and verbal questioning methods.

Yee-San Teoh, Teng-Fang Chang

This study compared the amount and accuracy of information children reported about a staged event in a drawing and three different verbal interview conditions. We also tested further whether verbosity was a valid indicator of the accuracy of children's memory reports. 80 seven-year-old children participated in a staged event involving a novel interactive puppet show followed by a drawing activity, and were subsequently given a 10-minute memory interview. We did not find significant effects of interview conditions and our findings also revealed that the number of words spoken was positively related to the number of correct details reported.

Dolls, drawings and diagrams: Interviewers' perspectives on visual aids in child witness interviews

Alex Hill, Deirdre Brown

Visual aids are tools, images and objects (e.g. diagrams, drawings, dolls) that forensic interviewers use in interviews to help children describe their experiences. Research evaluating these aids shows that they do not improve children's reports, however they remain commonly used by forensic interviewers. We surveyed interviewers about their use of and beliefs about visual aids; to identify whether interviewers' use of them reflects naivety about the evidence base for visual aids, or uses that have not yet been evaluated in controlled studies. Implications for future research and training about the use of visual aids with children will be discussed.

Attentional processing of stimulus-response-outcome chains as a function of psychopathic personality traits

Caroline Moul, Tom Beesley

Individuals displaying psychopathic personality traits may have a deficit in learning certain aspects of stimulus-outcome associations. This possibly reflects an attentional deficit which impairs the processing of features of the outcome. Accordingly, there may be an increase in attention to the reinforcing properties of the chain (the response was correct), but a decrease in attention to which outcome was produced (the response produced outcome Y). In a sample of healthy adults, we used an eye-tracker and an associative learning task to examine whether the attention devoted to specific outcome information varied as a function of psychopathic personality traits.

3:45pm – 4:00pm Break

4:00pm – 5:00pm**Keynote:****Room 101****Eyewitness identification's lost soul**

Neil Brewer

In the early days of the US Innocence Project mistaken eyewitness identifications emerged as major contributors to wrongful convictions. Laboratory and field studies also revealed that witnesses frequently fail to identify the culprit in a line-up. The disastrous consequences of the former type of error, in particular, stimulated wide-ranging research aimed at identifying line-up administration procedures that would reduce the likelihood of witness error. As a result of those endeavours we are now able to recognise shocking biases in procedures that can lead to injustices in individual cases. Yet I will argue that the data suggest that we should not bet on procedural improvements that will dramatically enhance overall decision making accuracy. I will also present data suggesting that our capacity to diagnose the accuracy of identification decisions is destined to remain limited. Consequently, our focus should be on developing – and advocating for – a completely different form of identification evidence.

**7:00pm – Late
Conference Dinner**

9:00am, Friday January 6

Friday January 6

9:00am – 10:00am**ECR Award Speakers****Room 101****The light and dark sides of memory retrieval: Implications for education and the law**

Jason Chan

Ample research has demonstrated the memory enhancing properties of retrieval for previously learned information (i.e., memories of the past). Less attention has been paid to the fact that retrieval also changes memories of the future. I will describe research on the phenomenon of test-potentiated new learning, whereby taking a memory test facilitates subsequent learning of new information. This future-changing effect of retrieval has obvious implications for enhancing educational practice. Surprisingly, however, this same effect of retrieval may have devastating consequences for eyewitness memory. I will describe research that shows that performing a recall test (i.e., an eyewitness interview) can paradoxically increase a person's susceptibility to later presented misinformation, and I will examine the conditions under which this retrieval-enhanced suggestibility effect occurs. More broadly, this research provides a window into understanding how retrieval affects retention (the past) and subsequent learning (the future). Although retrieval practice is typically considered a "good" thing, I argue that retrieval is not inherently good. Rather, it causes specific changes to learning and retention and whether those changes are "good" or "bad" depend on the context under which learning occurs.

Applying the science of learning to education: Small changes can make a big difference

Andrew C. Butler

Educational interventions intended to improve student learning often involve a complete overhaul of curricula and pedagogy. The science of learning offers a different approach. I will describe research that shows how simple, but powerful principles can be used to improve learning by making small changes to existing curricula and pedagogy. I will also discuss some of the challenges with taking this approach and potential solutions.

Paper Session**Room 100****Chair: Elaine Niven****Memory for events: recall of real and virtual experiences**

Elaine Niven, Robert Logie

Characterization of memory for personally experienced events often relies on comparisons of volume of detail reported and consistency of recall between initial and subsequent interviews. We investigated a new means of studying event memory –

specifically, whether experiencing a virtual environment can provide episodic-rich memories. Recall was compared between participants who had spent time navigating either a real-world museum exhibit or a detailed virtual reality replica exhibit. Episodic ratings of recall, and number and type of details provided suggested equally episodically rich recall of environments. Virtual, recordable environments may provide means to move beyond consistency-

focused analyses in testing event-based memory.

Benefits of video-recorded identification evidence: What are the boundary conditions?

Jennifer L. Beaudry, James D. Sauer

Presenting video-recorded identification procedures in court may improve jurors' sensitivity to eyewitness accuracy when non-suggestive procedures are used. Little is known, however, about the boundary conditions of the benefits of video-recorded identification evidence. We present a line of research demonstrating that viewing evidence obtained from suggestive (cf. non-suggestive) identification procedures may impair evaluators' ability to discriminate between accurate and mistaken eyewitnesses. Despite rating the suggestive procedures as more biased, evaluators were more likely to believe mistaken identifications compared to those obtained from non-suggestive procedures. We explore potential mediators of this relationship to better understand how evaluators perceive video-recorded identification procedures.

Using virtual reality to form memories for events from multiple visual perspectives

Peggy St. Jacques, Heather Iriye, Yoko Lam

We typically experience the world from a 1st person perspective (1PP), but we can retrieve memories from a 3rd person perspective (3PP). A long-standing assumption is that the

3PP reflects a transformation of memories over time. Here we developed a novel immersive virtual reality methodology to explore how visual perspective influences memory encoding. We found that adopting a 3PP versus a 1PP during encoding increased the accuracy of spatial memory, but had no effect on visual details. These findings will be discussed in terms of how visual perspective influences how we place particular events in a broader context.

Introducing a new mnemonic to the timeline technique: Retrieval support for sub-optimally encoded events

Feni Kontogianni, Lorraine Hope, Paul J. Taylor, Aldert Vrij, Fiona Gabbert

The timeline technique uses an innovative reporting format to elicit information from witnesses and informants. This study extends the timeline methodology by testing a theoretically-informed mnemonic, self-generated cues (SGC), to further facilitate retrieval for unique associated traces in comparison to generic interviewer-defined cues, e.g. mental reinstatement of context (MRC). One hundred and thirty-five participants witnessed a multi-perpetrator theft under full or divided attention and provided an account in one of three timeline reporting conditions comparing the efficacy of SGC, MRC, and no mnemonics (control). Results reflecting enhanced performance in the SGC condition have implications for eliciting information for complex events.

Paper Session

Room 102

Chair: Lauren Monds

Personality and memory conformity

Lauren Monds, Helen Paterson, Nicole Doughty, Carolyn MacCann

The aim of this study was to investigate whether personality characteristics are associated with memory conformity. Participants viewed a crime film and completed the Ten-Item Personality Questionnaire (measures extraversion,

openness, agreeableness, neuroticism, and conscientiousness). Participants discussed the film with a co-witness who contributed misinformation. Significant correlations between personality and memory conformity were found: decreased openness, extraversion and neuroticism related to increased reporting of post-event misinformation; increased agreeableness related to increased reporting of accurate

post-event information, and decreased conscientiousness and neuroticism related to increased fabrications. Findings suggest some individuals may be more susceptible to accepting misinformation and reporting errors than others.

Social feedback results in omissions but not nonbelieved memories

Andrew Clark, Lorraine Hope, Henry Otgaar, James Ost, James Sauer, Harald Merckelbach

Nonbelieved memories are a phenomenon whereby people continue to report having a memory for an event they have since attenuated their belief that the event occurred. Our research examines the consequences of nonbelieved memories and, drawing on Koriat and Goldsmith (1996), explores whether non-believed memories result in people withholding or omitting memories of past experiences. In two studies, participants had their recollections challenged by either a confederate or the experimenter. The results show that while some omissions were characterized by a decrease in belief ratings accompanied by higher memory ratings, nonbelieved memories did not explain all omissions.

Investigating the effects of mental memory checking on memory distrust and its influence on acceptance of post-event information

Ashley Adolphe, Celine Van Golde

Memory distrust refers to an individual profoundly distrusting their memory, rendering them reliant on external cues (e.g.,

misinformation; Gudjonsson, 2003). Memory distrust can be instilled through mental checking, wherein reviewing a memory to become more certain ironically fosters greater uncertainty. The current study sought to investigate whether memory checking influences memory distrust and misinformation acceptance in eyewitnesses, given that memory checking procedures and certain cognitive interview mnemonics are similar. Participants witnessed a crime video and mentally checked their memory a variable number of times. A week later impact on memory distrust and misinformation acceptance was assessed. Results will be discussed.

Collective wisdom or collaborative memory failure: Socially shared retrieval induced forgetting as a result of jury deliberations

Alexander C. V. Jay, Charles B. Stone

The jury is a defining component of the American justice system, and the Courts largely assume that the collaborative nature of jury deliberations will lead to correct legal judgments. However, research suggests that this kind of collaboration can lead to incomplete and inaccurate “collective” memories. The present research examines whether jury deliberations, where individuals collaboratively recall and discuss evidence to render unanimous verdicts, might shape the memories of jurors through the robust phenomena of within-individual and socially-shared retrieval induced forgetting (WI-RIF and SS-RIF, respectively). Preliminary results suggest that WI-RIF and SS-RIF do occur in the context of deliberating jurors.

Paper Session**Room 105****Chair: Eva Kemps****The role of expectations in the effect of food cue exposure on consumption in restrained eaters****Eva Kemps**, Marika Tiggemann, Sarah Hollitt, Ivanka Prichard, Janet Polivy, C. Peter Herman

We examined the role of expectations in the effect of cue exposure on consumption. Participants were exposed to high and low caloric food cues (grapes and cookies) and told to expect to taste and rate either grapes or cookies. They then received the expected or non-expected food. Restrained eaters ate less than unrestrained eaters when expecting to taste cookies, but not when expecting to taste grapes. Findings support counteractive control theory: expecting to eat a high-caloric food enabled restrained eaters to activate their dieting goal, thereby restricting their intake. Findings highlight an important role for expectations in regulating food intake.

The effect of modifying automatic and controlled processes on unhealthy eating behaviour**Naomi Kakoschke**, Eva Kemps, Marika Tiggemann

According to dual-process models, unhealthy eating behaviour is determined by automatic processing of unhealthy food cues (approach bias), which fails to be regulated by reflective processing (inhibitory control). The current study investigated combined approach bias and inhibitory control training in 240 undergraduate women who were randomly allocated to one of four experimental conditions in a between-subjects design. The combined training group had a more negative implicit evaluation of unhealthy food and participants trained to avoid unhealthy food made fewer unhealthy

choices. Results lend support to dual-process models and offer scope for interventions aimed at targeting both automatic and reflective processes.

Remembering the best of times or the worst of times? The moderating role of brand commitment on false product experience memories**Nicole Votolato Montgomery**, **Priyali Rajagopal**

We examine how vivid online consumer reviews can lead to the creation of false product experience memories, i.e. how vicarious false memories may be formed. We find that brand commitment moderates the creation of such memories such that highly committed consumers are less susceptible to negative false memories while low commitment consumers are equally susceptible to positive and negative false memories.

Passive lie detection – The effect of open and closed body postures on accuracy
Mircea Zloteanu, Daniel C. Richardson

Adopting certain body postures can affect how individuals process and attend to social information. Presently, we considered the effect of Open and Closed postures on the ability to detect deception. We hypothesised that adopting an Open posture would result in improved facial expression recognition and deception detection accuracy. This effect was considered to be most pronounced in highly empathic decoders. We found partial support for our hypotheses. Adopting an Open posture resulted in improved veracity discriminability only, especially in high empaths. These results demonstrate a passive approach to improving deception detection, using postures to affect information processing and gazing behaviour.

Paper Session**Room 107****Chair: Deirdre Brown****Developmental reversals in children's false memories for experienced events****Deirdre Brown**, Michael Lamb, Charles Brainerd

We examined whether developmental reversals in false memories were evident when children (5 – 13 years) recounted a health check that, like the Deese-Roediger-McDermott (DRM) paradigm, had a thematically important component missing, and whether performance on DRM lists was associated with recall of the health check. Children were interviewed with the NICHD Investigative Interview Protocol, and then posed recognition questions about (experienced and non-experienced) components of the health check. Age-based comparisons of false memory for the health check and DRM lists will be presented and implications for our understanding of memory development and children's eyewitness testimony will be discussed.

Ease of retrieval effects in the recall of childhood memories**Kimberley Wake**, Brittany Cardwell, Rachel Zajac

The ease with which information can be brought to mind can exert a considerable influence on subsequent judgements. We were interested in whether these ease of retrieval effects apply to how people remember their childhood. To answer this question, we asked participants to recall memories of events that occurred to them before the age of 10 years, manipulating the number (three or eight) and valence (positive or negative) of these events. We then investigated how well participants remembered their childhood, how happy

their childhood was, and the strategies they used to bring memories to mind.

Testing the implicit rapid processing of learned information in older adults**Susan Benz**, Chris Davis, Jeeseun Kim

As we age, our ability to connect items in memory (relational memory) typically declines. We have developed a test of relational memory that indexes the efficiency and strength of the connection between items. The procedure consists of Paired Associate Learning followed by masked priming in an old/new task. Older adults (n = 38, Mage = 70) had the same size priming effect as younger ones (n = 36, Mage = 30) but greater variation indicating that some of the older adults had less efficient relational memory. An individual test version has been developed and pilot results will be presented.

The secret life of passwords**Robbie Taylor**, Maryanne Garry

People use passwords every day to access their private information. What kinds of passwords do people create? Anecdotal reports provide several instances of people using personal memories to create passwords. In two studies, we investigated how widespread such a practice is, and why people might use personal memories to create passwords. We asked subjects a series of questions about their current passwords, and memories related to their passwords. Many subjects reported meaningful passwords that were often related to personal memories. The more these memories served functions, the more likely subjects reported choosing their passwords to reminisce about the past.

10:00am – 10:30am Break

10:30am – 12:30pm

Symposium**Room 101*****Surprising cognitive errors and memory****Alan Scoboria*

The papers in this symposium explore how people respond when confronted with cognitive errors. The papers explore how people appraise unexpected cognitive errors when given feedback, such as being told that they did or not observe an item that was previously presented, or being told that a memory is somehow erroneous. The talks examine topics such as plausibility, mental models for events, false memory, and inattention; and their relationship to outcomes including the ability to solve problems, changes to belief in memories, eyewitness accuracy, feelings of personal loss or gain, and communication about memories with others.

Eliciting nonbelieved memories for familiar and bizarre actions**Henry Otgaar**, Jane Wang, Tom Smeets

Recent studies have shown that event plausibility is an important factor for reducing autobiographical belief. We examined the elicitation of nonbelieved memories for familiar (i.e., plausible) and bizarre (i.e., implausible) actions. Participants performed and imagined several familiar (e.g., "stir the water with the spoon") and bizarre (e.g., "balance the spoon on your nose") actions and imagined several ones a day later. One-week later, they received a recognition test and some actions were challenged. Although true memories were higher for bizarre than familiar actions, nonbelieved false memories were higher for familiar than bizarre actions. Implications for these effects will be discussed.

Undermining belief for dynamic false memories hinders their ability to solve insight-based problemsZacharia Nahouli, Ieva Biliunaite, Giuliana Mazzoni (presented by **Alan Scoboria**)

Undermining belief for false memories induced through the Deese/Roediger/McDermott paradigm was

shown to hinder the ability to guide problem solving. The current study investigated whether this finding extends to more ecologically valid false memories. Participants studied video sequences and rated their memory for true and false items. Feedback pertaining to an items presentation was given to undermine belief. These items were primes to insight-based problems. Undermined false memory items primed lower problem solution rates than items confirmed in belief. This indicates that belief in false memories is essential in facilitating problem solving tasks also in more ecologically valid false memories.

A surprising failure of awareness: Inattention blindness, eyewitness memory, and unconscious transference
Ira E. Hyman, Jr., Alia Wulff

Inattention blindness is a surprising failure to become aware of something seemingly obvious. Inattention blindness occurs when an individual becomes selectively focused on one event in a complex environment. We investigated the impact of inattention blindness on eyewitness memory. As predicted, selectively focused people were less likely to notice a theft. One possible impact is that inattention blindness may cause a form of attention narrowing to the selectively focused features. We thus investigated how this surprising failure impacts memory for central and peripheral features of the situation. Inattention blindness may also make people more vulnerable to erroneous identifications.

False memory is many different things**Daniel Bernstein**, Lecia Desjarlais, Alan Scoboria, Kendall Soucie

The term 'false memory' refers to the outcomes arising from a range of methodologies in the literature. Efforts to identify correlations between different forms of false memories have been largely unsuccessful. We examined correlations among three procedures: DRM,

misinformation, and suggesting false childhood food experiences. We paid particular attention to the reliability of the measures and to acquiring a large sample [N=355]. We identified weak correlations ($r = .10$ to $.25$) between the procedures, indicating that the procedures measure different underlying constructs.

Receiving social feedback about autobiographical memories: Impact and outcomes

Alan Scoboria, Lauren Wysman, Chantal Boucher

Vivid autobiographical memories are precious to people. When memories are

contradicted by other information, intense systematic cognitive processing may follow. In one study, 295 participants described the personal impact associated with loss of belief in a memory. A majority (85%) described some form of personal impact. Given that people sometimes reduce and sometimes defend belief in challenged memories, in a second study 285 participants wrote about a time that a memory was challenged by another person. The outcomes reported were consistent with predictions that people maintain or reduce belief, and either express agreement or disagreement with the other person.

Paper Session

Chair: Alan Scoboria

Exploring the effectiveness of decision-making training: Can you learn to avoid the conjunction fallacy?

Peter J. Allred, Michelle M. Arnold

The current study focused on using a brief training intervention to reduce the frequency of conjunction fallacy (CF) errors (i.e., favouring unlikely choices over more likely ones). Participants completed three different sets of CF scenarios, with the training group receiving training materials between the first and second sets. Compared to a control group, the training group reduced their CF errors after training, and they maintained this reduction when they completed the third set of scenarios one week later. Thus, the findings highlight the promising benefit of using simple and brief training materials to help improve decision making.

What comes to mind when being triggered by personal items in the home? A qualitative exploration of cuing responses

Annemarie Zijlema, Elise van den Hoven, Berry Eggen

We investigated how personal holiday-items affect the retrieval of autobiographical memories. People often keep souvenirs, photos, and other acquired items from their holidays in their home. But what do the

holiday-items evoke when people encounter them? We interviewed nine participants during a 'home tour', discussing holiday-items from one particular holiday while walking with the participant through their homes. Qualitative analysis resulted in four types of cuing responses: 'no-memory' responses, 'know' responses, 'memory evoked think or feel' responses, and 'remember' responses. For each of these responses, we discuss the item types and their characteristics, giving a peek into everyday life remembering.

Moving beyond the dichotomy: Development of a decision process scale for eyewitnesses

Roy Groncki, Mai-Tram Nguyen, Jennifer Beaudry, Jamal Mansour

We aimed to address the lack of a psychometrically-validated decision process scale in eyewitness research. Participants' (N= 702) viewed a mock-crime video, attempted an identification from a target-present or -absent lineup, and completed a 21-item questionnaire regarding their recognition experience and detailing various decision processes. An exploratory factor analysis on data from 350 choosers revealed a four-factor solution, reflecting Automatic, Conflicting, Absolute and Confirming decision

processes. This supports Charman and Wells' (2007) contention that decision processes exist on a continuum.

Symposium

Room 100

The continued-influence effect of misinformation

Ullrich Ecker

The human cognitive system is characterized by information-processing biases and limited updating abilities, and thus the unprecedented presence of misinformation poses a significant challenge. Misinformation often resists correction, and thus has a continued influence on memory, reasoning, and decision making, which potentially affects all areas of life, from health issues (e.g., reliance on ineffective treatments, withholding vaccinations) to societal challenges (e.g., misinformation delaying action against climate change). This symposium brings together eminent researchers studying the continued-influence effect; it will address the effect's boundary conditions, ways to reduce its impact, and directions for future research.

The continued influence effect of misinformation, boundary conditions and backfire effects

Ullrich Ecker

Correcting misconceptions is a non-trivial task. Alas, misinformation continues to influence memory and reasoning even after credible corrections, and it has been claimed that sometimes corrections can even backfire and ironically strengthen the misconceptions they aim to refute. In this talk, I will present evidence for the continued-influence effect, and I will discuss factors that potentially influence the effectiveness of corrections, including (1) source credibility, (2) misinformation familiarity, (3) complexity of the correction, and (4) pre-existing attitudes.

Do corrections of mistaken information in news stories remain effective over time?

Patrick R. Rich, Maria S. Zaragoza

Piecemeal reporting of news stories sometimes results in the reporting of mistaken information that is later corrected. Studies have shown that such corrections successfully reduce belief in the mistaken information. However, few studies have investigated whether these corrections remain effective over time. In two experiments, we found that although corrections initially reduced belief in the mistaken information, the mistaken belief returned over time, though not to pre-correction levels. In a third experiment, we found the same pattern even when participants were provided an alternative to the mistaken information that explained the events in the news story.

When corrections succeed: Reducing the impact of misinformation

Panayiota Kendeou, Reese Butterfuss, Martin van Boekel, Kelsey Will

In this talk, I will discuss a series of experiments that examine how reader's individual differences (e.g., executive function), characteristics of the message (e.g., source credibility, causal interconnectedness, refutation structure) and the task (e.g., explicit instructions to evaluate information) reduce the impact of one type of misinformation, misconceived scientific knowledge. The findings from these experiments taken together suggest ways we can leverage reader, text, and task characteristics to reduce, at least temporarily, the impact of misinformation. Theoretical and practical implications will also be discussed.

Updating discredited causes: Reductions to the continued influence effect

David N. Rapp

Successful comprehension necessitates carefully tracking the causes of events. Problematically, people often endorse originally presented causes even after viable alternatives are provided. This continued influence effect (CIE) has proven resistant to intervention, although analyses have examined restricted sets of causes, calling into question the generalizability of updating failures. In three experiments, participants read reports introducing typical or atypical causes, subsequently discredited by typical or atypical causal alternatives. CIEs were observed for typical causes, with atypical causes amenable to updating. Explanations

accompanying causes further encouraged revision. The typicality of a cause is a crucial influence on updating and memory for events.

Discussion: Politics, science denial, brains, social norms, psychoanalysis, and other future directions for misinformation research

Stephan Lewandowsky

I will discuss the research presented in the symposium, synthesize previous research, and point out potential future directions, highlighting the significance of misinformation for science denial, and the potential for interdisciplinary investigations of misinformation effects across cognitive science, political science, and neuroscience.

Paper Session

Chair: Ullrich Ecker

The good and the bad about stress and memory

Ayanna Thomas

Psychological stress is an important risk factor for cognitive decline in old age. However, little research has directly evaluated the psychological and physiological moderators of the relationship between stressful experiences and cognitive function in older adults. The research presented examined the relationship between the biphasic stress response on memory in younger and older adults. Results suggest that not all stress is bad. Rather, when retrieval occurs during the first phase of the biphasic stress response, both older and younger adults demonstrated as good, and sometimes, better memory performance than non-stressed groups.

The impact of sleep on the binding of objects, actions, and scenes in visual long-term memory

John Shaw, Padraic Monaghan, Zhisen Urgolites

Visual memory has a remarkable capacity for recognising scenes, objects and actions individually. However, when required to

recognise pairs (e.g., scene and object), performance drops significantly. Sleep is known to preferentially preserve declarative memory, so could it aid binding memory? Participants were assigned to a sleep or wake condition and viewed action-scene or object-scene pairs. Participants returned 12 hours later after a night's rest or a day awake for a recognition task. There was no significant difference between sleep and wake group in the action-scene task. In the object-scene task sleep did enhance binding compared to wake.

Motivated cognition in legal decision making: Exploring factors driving preventive detention

Mickael Bojczenko, Olivia Campbell, Diane Sivasubramaniam

Preventive detention has been introduced in several jurisdictions, with the intention that it be based on utilitarian principles (preventing risk to the community); however, legal scholars have expressed concern that retributive motives implicitly drive preventive detention decisions. In two experiments, we explored the balance between risk information and retributive motives in preventive detention decisions. Study 1 (n=325) showed these decisions were influenced by information other than risk,

including participant characteristics. Study 2 (n=166) showed people sought risk rather than punishment information when making preventive detention decisions. Discussion

addresses the implicit influences of retributive versus utilitarian motives in legal decision making.

Symposium

Room 102

Visual cognition in real-life contexts

Sophie Nighthingale

The visual system is remarkable, but not perfect. This symposium brings together five streams of research to explore the process of vision cognition in real-life contexts. Papers 1-3 explore how limits in visual attention contribute to failings in everyday activities. Papers 4 and 5 suggest ways that research on visual recognition can be used to enhance performance in forensic and clinical settings. Each of these studies has important implications for how we think about and use the visual system in everyday tasks. Altogether they illustrate that studying the complexities of visual cognition broadens our understanding of the underlying mental processes.

Can shadows and reflections help in the detection of photo forgeries?

Sophie J. Nighthingale, Kimberley A. Wade, Hany Farid, Derrick G. Watson

The growing sophistication of photo-editing tools means nearly anyone can make a convincing forgery. Consequently, we find ourselves questioning the authenticity of photos and perhaps wondering if we can distinguish real from fake. In two experiments we found that observers could not reliably detect even large inconsistencies in shadows ($d'=0.15$) and reflections ($d'=-0.05$). Furthermore, observers were biased to accept physically impossible shadows as plausible ($c=0.20$) and physically correct reflections as implausible ($c=-0.16$). These findings may partially account for people's willingness to accept manipulated images as real, and may lead to methodologies for training observers to distinguish real from fake images.

Why billboards can kill you: Attention-grabbing images disrupt perception in multiple ways

Steven B. Most

Roadside billboards are well known distractions, often causing drivers' attention to leave the road for extended periods. One seemingly intuitive solution, which has been enacted by some municipalities, involves placing of advertisements on road surfaces themselves. However, while this approach minimizes how much such adverts draw spatial attention away from the road, such ads can still disrupt perception via other means. In "emotion-induced blindness", for example, emotionally evocative images disrupt perception of targets that appear in their same location, at the focus of where people are looking. Here, I discuss what we know about emotion-induced blindness and its underlying mechanisms.

Eye tracking children watching animated videos

Jodi Sita

Short animated films are frequently used for both educational and entertainment purposes, in particular for younger audiences. In some of my recent work I studied the visual attention of children as they viewed short animated films and whom were also asked to describe what they thought the film was about. Findings around what was attended to and how this relates to what was described will be discussed as will other findings from my research where attention to the moving image has been studied. Results will be of interest to those designing educational videos that aim to maximise understanding and/or impact.

Can mild brain stimulation enhance facial expression recognition?

Megan L. Willis, Jillian Murphy, Nicole Ridley, Ans Vercammen

The capacity to recognise emotion in the facial expressions of others is critical for effective social communication, but is an ability often impaired amongst individuals in many clinical populations (e.g., autism spectrum disorder). Despite the prevalence of such deficits, treatments to remediate facial expression recognition deficits remain scarce. Mild brain stimulation, a non-invasive neuromodulation technique, which involves administration of a weak electrical current has been found to enhance motor skills and cognition in healthy adults and clinical populations. Here, I discuss further application of mild brain stimulation as a tool to both understand, and improve, facial expression recognition abilities.

Towards optimal human decision input for face recognition systems

David White, Richard Kemp

Recently, wide deployment of biometric face recognition systems (FR) has been accompanied by substantial gains in algorithm performance. However, FR designers do not consider the errors of human operators, who are an integral part of FR solutions in many forensic and security settings. This is a problem because people are known to be very poor at face matching tasks. For the last six years we have collaborated with the Australian Passport Office to address this problem. Here, we give an overview of the lifecycle of this project: from initial lab-based and field research, to the implementation of evidence-based solution

Paper Session

Chair: Sophie Nighintgale

The self-deceptive eyewitness

Dawn-Leah L. McDonald, Maryanne Garry, Deirdre A. Brown

Jurors associate an eyewitness's confidence with believability. What if an eyewitness misleads herself to think her memory is better than actuality? We showed students a simulated crime, followed by two memory tests. Half the subjects had the answers on Test 1, with the opportunity to cheat. Both groups learned their scores, then previewed and predicted Test 2 scores. We expect subjects with the answers will score higher on Test 1 (an indication that they "cheated") and that they will predict inflated performance on Test 2, perhaps rather than admit cheating on Test 1, or because they "knew it all along."

Appearance change effects on eyewitness recognition and decision-making

James Sauer, Matthew Palmer, Jordan Knight

Appearance change effects on identification may operate via effects on recognition

(reduced ephoric similarity rendering the target unrecognizable) or decision-making (insufficient ephory relative to a response criterion). We tested the effects of appearance change, foil selection method (match appearance vs. match description), and identification task (standard identification decision vs. ratings) on participants' ability to discriminate a target from foils in a target-present lineup (Experiment 1, N = 69), and guilty from innocent suspects in target-present and – absent lineups (Experiment 2, N = 408). Consistent with a decision-making mechanism, ratings demonstrated discrimination even when categorical procedures showed increased incorrect rejections.

Yes officer that's my statement: Choice blindness in witness statements and the effect of recall modality

Ruby Brown, Celine van Golde

Recent research has documented the choice blindness effect, a phenomenon where

individuals are blind to alterations made to their previous choices, in eyewitness identification tasks. However, whether choice blindness can be found in eyewitness statements remains unclear. The current study investigated whether choice blindness could be established for eyewitness statements and how recall

modality might influence the effect. Participants watched a video answering questions afterwards by either typing responses themselves, or telling someone who took notes. One week later, participants read their own statement, or a manipulated one, after which they were tested for choice blindness. Results will be discussed.

Paper Session

Room 105

Chair: Mevagh Sanson

The role of expectancies in the effects of trigger warnings

Mevagh Sanson, Maryanne Garry, Deryn Strange

Trigger warnings are cautionary instructions that summarise negative material a person is about to encounter and warn it might “trigger” symptoms associated with post-traumatic stress disorder (PTSD). These warnings are intended to help prevent such symptoms but may instead worsen them. To address this possibility we gave some subjects a trigger warning, showed them all negative material, and measured their PTSD-like symptoms. Across multiple experiments we found warnings had a trivial effect on symptoms-but worsened expectations about the material. The effects of trigger warnings may depend on the response expectancies they create regarding PTSD-like symptoms.

Is forewarned always forearmed? Effects of trigger warnings on reactions to negative and neutrally valenced stimuli

Victoria Bridgland, Deanne Green, Jacinta Oulton, Melanie Takarangi

Trigger warnings are warnings that inform the viewer that the material they are about to view contains content that could be triggering to victims of trauma or could lead to extreme emotional reactions. Although widespread in use, response expectancy and emotional regulation literature suggests trigger warnings may actually be hindering in nature. To assess the effects, we compared participants’ emotional reactions to the same ambiguous photo stimuli presented with or

without a trigger warning. We also manipulated the emotional valence of the photos, by pairing each photo with either a negative, neutral or no headline (between subjects).

Repeated exposure to misleading post-event information after a traumatic event: The effects on memory

Sasha Nahleen, Melanie Takarangi, Deryn Strange

People often remember more than they actually experienced after a traumatic event (e.g., Giosan et al., 2009), possibly because they incorporate new post-event information (PEI) into their event memory, that is, make a source monitoring error. We investigated the effect of repeated PEI on trauma memory. Participants watched a trauma film with some scenes removed. The PEI comprised of descriptions of the removed scenes in three “eyewitness reports.” Unexpectedly, repeated PEI led to fewer false memories, possibly because repeatedly telling participants they had seen six extra film scenes increased discrepancy detection and made them more careful at test.

The influence of lateralized processing on involuntary memories of traumatic images

Ella Moeck, Melanie Takarangi, Nicole Thomas

Neuroimaging research suggests right hemisphere (RH) abnormalities associated with Post Traumatic Stress Disorder may reflect a propensity to experience involuntary memories, or intrusions. We used a trauma analogue to examine whether

intrusions differ for traumatic images primarily processed by the RH compared to the left hemisphere, or both hemispheres. Frequency and duration of immediate intrusions did not differ by processing condition. By contrast, participants who primarily processed images with the left hemisphere had longer lasting intrusions following the lab session. It appears that disrupting RH-specific visuospatial processing following trauma, as could occur with RH abnormalities, may lead to longer-lasting intrusions.

Comparing the cognitive interview to a standard interview method for witnesses of sexual assault

Stefanie J. Sharman, Nina Westera, Martine B. Powell

The current study extended Cognitive Interview (CI; Fisher & Geiselman, 1992) research in two ways. First, it examined witnesses' recall of a stressful event that has not previously been investigated: sexual assault. Second, it investigated witnesses' perceptions of the interview process. Participants watched a video depicting a sexual assault before being interviewed using the CI or a structured interview method (SIM), which followed the same procedure as the CI but did not include the CI-specific instructions. After the interview, they completed a questionnaire about the interview process and rated their levels of comfort, embarrassment, and fatigue.

Lawyers practices for cross-examining child sexual abuse complainants about inconsistent testimony

Nina J. Westera, Powell, M.P., Leech, C.

During cross-examination lawyers may use inconsistencies in a witness's testimony to imply that the witness's entire testimony is unreliable. Yet, researchers have found that an inconsistency in witness's reporting of an event could simply reflect a memory error or

miscommunication for that part of the testimony. The purpose of this study was to examine how lawyers actually use inconsistencies in practice. We analysed 120 trial transcripts to find out how defence lawyers use inconsistencies when cross-examining complainants of child sexual abuse. We examined the frequency of use, significance to proving the alleged offending and nature of the inconsistencies.

Expert witness testimony in delayed disclosure child abuse cases
Reneau Kennedy

Children's delayed disclosure in child sexual abuse cases poses challenges for attorneys, experts and for the court. This presentation illustrates how memory testimony provides significant assistance at trial. Current research concerning autobiographical memory and trauma memory is highlighted. Examples from several trials will be used to illustrate this meaningful area of expert testimony. Guidelines and strategies for evaluating child forensic interviews and attorney inquiry of the child or adolescent witness at trial will also be discussed.

Scarred for life? Memories for physically scarring childhood events.

Andrea Taylor, Maryanne Garry, Rachel Zajac

When adults make criminal allegations about childhood events, their accounts of criminal acts are often highly detailed. How these childhood memories are so detailed is puzzling in light of the source monitoring framework, especially considering that they were probably not often rehearsed - or perhaps didn't seem frightening - at the time. To what extent do adults report specific details when recalling a childhood accident serious enough to cause a physical scar? We asked adults to recall a childhood event that resulted in a physical scar and to rate their memories on various perceptual and qualitative details.

Paper Session**Room 107****Chair: Kristy Martire****Presuming innocence or assuming impartiality?
Kristy Martire**

The presumption of innocence (POI) is an integral part of most systems of criminal justice. Even so, there is an insecurity regarding what the POI means and little data speaking to how jury-eligible respondents interpret the instruction. In this presentation we discuss the results of a study exploring the impact of the POI instruction on numerical estimates of the chance of the defendant's innocence. Surprisingly, the data indicate that there is no unitary numerical understanding of the POI, rather there are two distinct interpretations which are influenced by POI instruction. The implications for fair trial ideals will be discussed.

**Downplaying crime severity amplifies perceptions of guilt
Glenys Holt, Matthew Palmer**

The present study investigated how directional inconsistencies (i.e., those that downplay or exaggerate the severity of the crime) influence verdict outcomes. Results indicate that verdicts were unaffected when a suspect confessed to a crime more severe than the facts implied. However, when the suspect admitted to a lesser crime (e.g. firing 3 shots, not 10), jurors perceived the suspect as being more guilty of the crime. These findings indicate that some jurors in wrongful conviction cases may have convicted suspects based on factually flawed confessions because the suspect appeared more guilty, by virtue of downplaying the severity of the crime.

**Strategic regulation and reporting in the alibis of innocent and guilty suspects
Shiri Portnoy, Lorraine Hope, Aldert Vrij, Pär-Anders Granhag, Karl Ask, Sara Landström**

Alibis provided by innocent suspects often fail to convince interviewers of their innocence. We examined the effects of pre

-alibi instructions on alibis provided by guilty and innocent suspects. Drawing on Koriat and Goldsmith's (1996) model of strategic regulation, participants provided alibis for an apparent theft. Participants received instructions that emphasized (i) accuracy; (ii) informativeness; or, (iii) both accuracy and informativeness. Control participants received no special instructions. In light of research on memory, alibi quality and quantity are expected to be highest for truth-tellers. This is the first study to examine regulation and reporting in alibis of innocent and guilty suspects.

**Automatically guilty: Associations between evidence and guilt
William E Crozier, Deryn Strange**

To test whether some forms of forensic evidence spontaneously activate "guilty," we developed a 14-word Deese-Roediger-McDermott (DRM) list for the critical lure "guilty" in 73% of participants. Then, we substituted different evidence (Confession, DNA, Bitemark, Eyewitness) into the list, hypothesizing that false alarm rates would vary in line with the perceptions of the evidence, creating a stronger (or weaker) association than the original list. Surprisingly, we found participants (N=699) false alarmed to "guilty" at consistently high rates (73-85%) and participants who saw "Confession" were more confident in their false memories. Implications for future research directions and this paradigm are discussed.

**Crime obviousness and awareness: Everyday distractions may reduce awareness even for obvious crime
Hayley Cullen, Helen Paterson, Celine van Golde**

Crimes may not always be perceived as such when they are not obvious. This may in turn affect eyewitness memory. In the current study, 135 participants viewed a video either depicting no kidnapping, a non-obvious kidnapping, or an obvious kidnapping at a bus stop, whilst completing a distractor task

incorporated in the video. One week later, awareness and memory of the event was measured. It was found that awareness and subsequent memory of crime did not differ across the non-obvious and obvious kidnapping conditions, suggesting that awareness of crime, even obvious crime, may be reduced when eyewitnesses are distracted.

Training the indirect detection of malicious intent

Beth Richardson, Helen Jones, Steven Nicholson

Insider threat poses major risk to all organisations, which can be detrimental in terms of both information privacy and financial loss. It is important to be able to recognise such malicious intent before this manifests into an actual incident. This project considers previously recognised verbal and nonverbal cues in deception detection, and builds upon these by establishing objective physiological changes that are indicative of interaction with someone demonstrating malicious intent. Using these, we outline a training programme allowing individuals to recognise behavioural and physiological changes in themselves when interacting with someone who poses a threat to them and their organisation.

Judges' perceptions of eyewitnesses, eyewitness testimony, and suspect identification in Taiwan

Yee-San Teoh, Chih-Yang Lin, Tien-Ning Hsu

Past research shows that most jurors place heavy weight on eyewitness testimony when deciding whether a suspect is guilty. In Taiwan, the acceptability (and admissibility) of such evidence by judges has been questioned following a number of high profile wrongful convictions. Given the absence of a jury system in Taiwan, this survey research addresses questions of how and how well judges assess the credibility of eyewitnesses, eyewitness testimony and identification in homicide cases. We discuss our findings in line with the Taiwanese legal system and underline the importance of science education and training in psychology for judges.

Positivity bias in lies

Lara Warmelink, Sebastian Stoltz, Marco Leung, Kate Woodward, Emily Hodson

New deception paradigms allow participants more freedom to decide when and how to lie. This presentation describes four studies in which participants told the truth or lied about a stimulus (dice, sounds or faces). They also rated the valence of the sounds and faces. The results showed that participants lied more when the stimulus was less positive. The participants also referred more often to more positive stimuli or higher dice rolls in their lies. The presentation will include a discussion of the limitations and the possible causes of these effects.

12:30pm – 1:30pm

Lunch

**From Lab to Real World – In Conversation with Research Partners
Room 101**

1:30pm – 2:30pm

Symposium**Room 101*****Considering the evidence: Factors that influence memory and perceptions in police investigations****William Crozier*

Evidence is a crucial part of a criminal investigation; however, even accurate evidence cannot speak for itself. This symposium demonstrates how evaluating evidence can negatively affect our memory and perceptions. Paper 1 investigates the use of considering alternate explanations of evidence to buffer against guilt presumption. Papers 2 and 3 show how certain interviewing techniques (the “bait question”) can cause a misinformation effect in jurors that is extremely difficult to correct. Finally, paper 4 examines whether body-worn camera footage can correct misinformation in a police. Together, these findings demonstrate that our understanding and memory for evidence can be problematically distorted.

Generating alternate explanations of the evidence may not reduce police interviewer guilt expectations**Divya Sukumar, Kimberly A. Wade**

Proponents of certain police interview techniques (e.g., Strategic Use of Evidence) suggest that generating alternative explanations of incriminating evidence when planning suspect interviews reduces interviewers’ expectations that the suspect is guilty. In two experiments (N =230), some subjects generated interview questions based on alternative explanations, some subjects simply generated interview questions, and some completed a filler task, before rating the extent to which they believed the suspect was guilty. Generating alternative explanations did not reduce interviewers’ judgements of suspect guilt, nor their confidence in these judgements. In the context of criminal investigations, generating alternatives may not tackle people’s tunnel vision.

Memory errors in police interviews: The bait question as a source of misinformation**Timothy J. Luke, William E. Crozier, Deryn Strange**

During an interrogation, police sometimes ask hypothetical “bait questions” about nonexistent incriminating evidence as a cue to detect deception. Can such hypothetical questions act as misinformation, creating a typical misinformation effect in jurors? In two experiments, participants (Study 1=104 mTurkers; Study 2=208) read a police report (Event Phase), watched an interrogation film with bait questions (Misinformation Phase), and then completed both forced-choice and source memory tests. We found that bait questions created an ME for mock-juror’s memory of evidence (mean $d=0.80$ 95% CI:[0.66,0.95]). We discuss future research and real-world implications for this troubling interrogation tactic for jurors, interrogators, and suspects.

You have been warned: Can warnings mitigate the misinformation effect from misleading evidence in bait questions?**William E. Crozier, Timothy J. Luke, Deryn Strange**

We were interested in testing whether warning people about misinformation contained in bait questions would help them resist the ME. In two experiments that replicate and extend the results of Paper Two, participants (Study =206, Study 2=295) were warned either before or after receiving misinformation from bait questions. We again found misleading bait evidence produced a misinformation effect (mean $d=.75$, 95% CI: [.58,.91]). However, we found that warnings were generally ineffective, regardless of whether they were given before or after the PEI or if they contained a highly a specific description of the misinformation. Implications for practice are discussed.

The potential for bias with body worn cameras: Examining factors that influence memory and interpretation of BWC evidence.

Kristyn A. Jones, William E. Crozier, Deryn Strange

Some policy-makers have advocated for separation of evidence so that officers are required to write an incident report prior to viewing their body camera footage. However, no research has examined how discrepancies

between the two may impact perceptions of an officer-civilian interaction. Here, we examined whether participants could be misled by misinformation in an officer's report. Consistent with the misinformation effect and continued influence effect, inaccuracies in the report affected how participants remembered the encounter – judging the officer as less culpable and the suspect as more aggressive – even when participants had the opportunity to watch the objective footage.

Symposium

Room 100

Negative psychological consequences of video game use? Evidence that statistical, methodological and moderating factors influence typical post-game effects

Aaron Drummond

The psychological effects of interactive media use is a contentious issue. While some suggest consistent links between violent videogame use and negative outcomes (e.g., increased aggression, decreased empathy-Anderson & Bushman, 2001; Anderson et al., 2010), others report little-to-no relationship between these constructs (Breuer, Vogelansang, Quandt & Festl, 2015; Decamp & Whitney, 2015; Ferguson, 2015). Four presentations investigate the statistical, methodological and moderating factors influencing the presence of negative consequences following videogame use. Findings suggest that moderating factors, and statistical and methodological issues influence the presence of such effects, emphasising the need for improved psychological theory to guide future research.

Are associations between 'sexist' video games and decreased empathy toward women robust? A reanalysis of Gabbiadini et al., 2016

Christopher J. Ferguson, Brent Donnellan

One recent study (Gabbiadini et al., 2016) examined how sexist games influence empathy toward women and claimed to find a link. Reanalysis revealed errors in the calculation of some variables as well as lack

of theoretical rationale for the prime model tested in the original paper. No main effects were found for video game condition on empathy toward women. More complex interaction models did not appear to be robust and could be used either to support or disconfirm the presence of media effects. It is concluded that the evidence for a "sexist game" effect based on this dataset is weak.

Adolescents and violent video games: Does violent video game play influence moral decision-making and aggression?

Peter R. Cannon, Sam Payne, Richard Fletcher

This study explored the relationship between violence in videogames and aggressive behaviour, affect, and moral decision making in adolescents. Sixty participants aged 13-14 played a violent game against aggressive or passive enemies or a non-violent control game. Participants' affective state was measured using the Positive and Negative Affect Scale - Extended (PANAS-X) and facial electromyography (EMG). Aggressive behaviour was measured using the Hot Sauce Paradigm. Finally, participants completed the Trolley Problem moral dilemma. Violent gameplay was not associated with significantly higher aggression or moral decision-making. Findings challenge the Generalised Aggression Model which suggests violent gameplay should increase postgame aggression.

The effects of narrative context and reward structures on aggression following violent and non-violent videogame play

Aaron Drummond, James D. Sauer, Natalie Nova, Thomas Norman

The generalized aggression model (GAM) suggests that playing violent videogames activates aggressive schemata increasing post-game aggression. In two experiments, we examined the effects of reward structures and narrative context in violent (experiments 1 & 2) and non-violent (experiment 2) videogames on in-game and postgame aggression. Contrary to GAM-based predictions, manipulations differentially affected in-game and postgame aggression. Rewards selectively affected in-game aggression, whereas narratives selectively affected postgame aggression. Players portraying heroic characters in-game exhibited less postgame aggression than players portraying antiheroic characters in-game. These results contradict the GAM's assertion that violent videogames affect aggression through a generalized activation mechanism.

The effects of reinforcement schedules on gameplay time and persistence. Evidence that (some) intangible rewards contribute to increased gameplay

James D. Sauer, Aaron Drummond, James Thomas, Dylan Sault, Paul Marshman

Excessive videogame use among regular gamers is estimated to be high. In-built reward schedules, drawing on operant conditioning principles, seem likely to encourage problematic gaming behavior. We tested the effects of fixed and variable, ratio- and interval-based reinforcement on participants' gameplay duration and persistence (restarts following failure). 78 participants were allocated to one of five reinforcement conditions. Although reinforcement schedules typically showed weak effects (cf. a no-reinforcement control), variable-ratio reinforcement nearly doubled playtime ($d = 1.26$) and persistence ($d = 1.19$). Findings provide evidence for reinforcement effects on gameplay under certain conditions, and design-factors potentially underlying problematic gaming behaviors

Symposium

Room 102

Autobiographical narrative coherence: Structure, style, and associations with well-being

Theodore Waters

The ability to construct coherent autobiographical narratives is considered a hallmark of healthy adolescent/adult adjustment. Yet, there is little agreement on how many dimensions of coherence exist, what contributes to individual differences in coherence, and which aspects of coherence are related to psychological adjustment. This symposium will present data from three studies that start to address these issues. Specifically, the talks suggest that narrative coherence is comprised of three components (i.e. psychological context, temporal detail, and meaning/reflection), reflects trait-like and state-like variation, and is curvilinearly related to psychological adjustment. The

discussant focuses on implications for developmental and personality theory/research.

The component structure of life story coherence

Theodore E. A. Waters, Jonathan M. Adler

The ability to construct a coherent life story, one that is internally consistent, detailed, and meaningful, is considered a hallmark of adult adjustment (e.g. Baerger & McAdams, 1999). Yet, coherence is operationalized in a variety of ways with little empirical agreement on its basic dimensions. To address this issue 164 mid-life adults completed life story interviews which were coded for coherence using three separate coding systems. Coherence scores were subjected to principle components analysis with an oblique rotation (Promax). Result

produced a three component solution: psychological context, temporal detail, and meaning/reflection. Implications for theory and research on coherence are discussed.

Is there a trait-like autobiographical narrative style?

Christin Kœber, Theodore E. A. Waters, K. Lee Raby, & Robyn Fivush

Narrative theories of personality assume that individual differences in the coherence of autobiographical narratives reflect trait-like, rather than state-like, variation (e.g. McAdams & McLean, 2013). That is, individual differences in the coherence of autobiographical narratives are assumed to reflect stable individual differences in narrative style. To test this assumption, the two most traumatic and most positive life events of 224 undergraduates were coded for the three coherence dimensions theme, context, and chronology (NaCCs, Reese et al., 2011). Confirmatory Factor Analysis revealed that manifest variable coherence was best explained by a combined model reflecting both trait-like and state-like latent variables.

Insights into autobiographical narrative coherence and well-being using neural networks

Matthew E. Graci, Robert Thorstad, Theodore E. A. Waters, Robyn Fivush, & Phillip Wolff

Although broadly assumed, there is surprisingly little research on relations between narrative coherence and wellbeing. Coherence is a complex construct, including structural and semantic components, thus requiring multiple levels of analysis, along with investigating linear and curvilinear relations to wellbeing. Curvilinear relations, in particular, may indicate disorganization and rigidity as the lower and upper ends of coherence. We compared hand-coded measures of structural coherence to newly developed semantic coherence, captured by vector-symbolic-representations using neural networks. Semantic coherence is curvilinearly related with structural coherence, and wellbeing, suggesting there is an optimal level of semantic coherence relating to structural coherence and wellbeing.

Discussant Elaine Reese

Paper Session

Room 105

Chair: Laure Brimbal

Socialization in job interview: Does lying or blunt honesty get the job

Laure Brimbal, Mary Zottoli, Angela M. Crossman

Participants (both lay people and Human Resource professionals) were shown short video clips in which job candidates told prosocial lies or truths, either bluntly or subtly. Participants rated their impressions of the candidates and how each response would affect participants' likelihood of hiring or rejecting the candidate. Both veracity and directness affected impressions of the candidates and likelihood of hiring, qualified by a veracity by directness interaction. Results suggest honesty does not always pay.

Person description information: An examination of frontline communication

Gary Dalton, Becky Milne, Lorraine Hope

Person descriptions provided by witnesses form an important source of information for police investigations. Unfortunately, these descriptions tend to be non-distinct. The present study aimed to examine what happens at the scene of an incident and provide a frontline examination of how witnesses describe a suspect for the first time. Video footage of incidents taken over a 15-month period was viewed. The Koriat and Goldsmith (1996) Metacognitive Model of Memory Regulation was used to examine the level of detail witnesses provided to frontline officers. The questions asked by officers were

also evaluated to see which yielded the most information.

Features of episodic foresight that affect decision making

Janie Busby Grant, Kathleen Myer

Recent evidence suggests that the mental construction of potential future events, known as episodic foresight, can influence present behaviour. These studies investigated the process by which episodic foresight affects behaviour by manipulating features of cues provided to participants as they engaged in episodic constructions. The effect of these variables on phenomenological characteristics of the representations was examined, and in turn the influence of these variables on decision-making was assessed. The findings provide insight into the process by which episodic

foresight affects decision-making and have both theoretical and applied implications.

The social media alibi: Does the type of crime affect the believability of the alibi?

Leora C. Dahl, Heather Price

In two experiments, we examined whether a Facebook status update added credibility to an alibi. Study 1 was a 3 (alibi support: none, status update, status update with photo) by 2 (location: home alone, at mother's) between subjects design. Study 2 was designed to further examine the social media alibi by adding a planned crime (robbery) vs a spontaneous crime (assault) comparison. In both studies, a Facebook status update affected the believability of the alibi. The results of these studies and their implications will be discussed.

Paper Session

Room 107

Chair: Mandy Visser

The effect of ageing on the expression and perception of cues for uncertainty

Mandy Visser, Jeesun Kim, Chris Davis

Problems in memory retrieval are often signalled by non-verbal cues that express uncertainty. We examined how ageing affects the production and perception of such cues. To obtain materials showing a range of states of knowing, we recorded videos of younger and older adults answering questions that varied in difficulty and analysed the nonverbal cues related to the expression of uncertainty. In subsequent perception experiments, younger and older adults rated how uncertain people were. Younger adults were more accurate in estimating uncertainty for their own age group. Results for older adults' perception of uncertainty point to possible in-group and ageing effects.

Testing the efficacy of value affirmations in eliminating age-based stereotype threat

Sarah Barber, Sierra Niblett, Jordan Seliger

Research has shown that stereotype threat can impair older adults' memory performance. This study tested the effectiveness of a value affirmation intervention in eliminating this performance impairment. Although this intervention has previously been shown to eliminate stereotype threat effects in younger adults, the current study found no similar benefit for older adults. That is, when confronted with stereotype threat, older adults underperformed on a memory test, regardless of whether or not they had previously completed the intervention. This adds to other research showing that factors modulating stereotype threat effects in younger adults do not always hold when examining older adults.

Remembering better or remembering worse: Age effects on false memories

Priyali Rajagopal, Nicole Votolato
Montgomery, Kara Bentley

While researchers have focused on understanding the origins, characteristics and consequences of false memories, there has been little focus on variables that moderate false memories. In this paper, we examine one such variable – age. While past research suggests that older adults are more likely to be prone to memory deficits, our results indicate that false memories are more pronounced for younger adults. That is, older adults are less likely to report false product experiences than younger adults.

On the transitional character of life-script and script-divergent events: A comparison of beliefs vs. experience

Liangzi Shi, Norman R. Brown

Life-script events are normative life transitions, whereas script-divergent events are unexpected transitions that cannot be mapped onto a life script. Despite their discrepancy in prevalence, predictability, and valence, life-script and script-divergent events are expected to be equivalent in terms of their transitional impact. In this study, we instruct younger and older adults to assess the transitional character of their experienced and unexperienced events (half are life-script and half are script-divergent). The unexperienced events (both types) are believed to cause remarkable changes in material and psychological aspects of life, whereas the evaluation based on personal experience varies across different events.

2:30pm – 2:45pm Break

2:45pm – 3:45pm**Keynote:****Room 101****The end of facts**

Maryanne Garry

People easily come to believe or remember things that just aren't true—about themselves, about others, and about the world. Sometimes these false cognitions develop slowly, but other times they take hold in seconds. What's more, when it comes to our autobiographical memories, we lean toward cheap-and-easy verification strategies rather than reliable ones— even when relying on incorrect information can have significant consequences. You'll laugh, you'll cry, but then we'll all have a drink and briefly feel better about the world.

3:45pm – 4:30pm
Closing Ceremony

4:45pm
Wildlife Zoo

Presenter Index

Addis, Donna Rose.....	33, 38, 42	Danby, Meaghan.....	53
Adolphe, Ashley.....	84	Dar-Nimrod, Ilan	50
Allen, Joanne	66	Davis, Sara	35
Allred, Peter.....	88	Deck, Sarah	67
Antoniou, Mark	70	Denham, Grace.....	68
Arguel, Amael.....	53	Dewhirst, Mary.....	41
Arnold, Michelle.....	45	Dey, Shanta	36
Aspell, Tiger	44	Dianiska, Rachel	60, 69
Austin, Elizabeth.....	79	Dijkstra, Katinka	75
Baldassari, Mario	73	Drews, Frank.....	51
Baldwin, Peter.....	36	Drummond, Aaron	98, 99
Ballard, Timothy	65	Dryer, Rachel	66
Barber, Sarah.....	101	Dunn, James	70
Barnier, Amanda	63	Dyson, Ben	58, 69
Bauer, Patricia.....	52	Ecker, Ullrich.....	78, 89
Beaudry, Jennifer	83	Evrard, Christelle.....	57
Benz, Susan	86	Ferguson, Christopher.....	98
Bergen, Penny Van	52, 54	Fitzgerald, Ryan	71
Bernstein, Daniel.....	71, 87	Foerster, Katharina	69
Bicknell, Kath.....	47	Formosa, Nicholas	68
Bodner, Glen.....	79	Foster, Jeffrey	75
Bojczenko, Mickael.....	90	Fromme, Sarah	57
Booy, Regard	56	Gaesser, Brendan.....	51
Brackmann, Nathalie	73	Gamble, Beau.....	57
Brewer, Neil.....	81	Garry, Maryanne.....	102
Bridgland, Victoria	93	Gilet, Anne-Laure.....	44
Brimbal, Laure.....	75, 100	Golde, Celine van	67
Broomfield, Catherine.....	80	Graci, Matthew.....	100
Brown, Deirdre	86	Graneist, Alice.....	41
Brown, Norman R.	77	Grant, Janie Busby.....	101
Brown, Ruby	92	Green, Deanne.....	70
Browning, Catherine	63	Greenstein, Michael.....	55
Bruer, Kaila.....	73	Groncki, Roy	88
Bryant, Richard	34, 36	Guerin, Nicola	59
Burnell, Ryan	51	Gurdere, Ceren.....	56
Burton-Wood, Cassandra.....	63	Hambrick, David	48
Butler, Andrew.....	82	Hamilton, Lawrence.....	78
Campitelli, Guillermo.....	68	Harris, Celia.....	63
Cannon, Peter	98	Hayes, Brett	65
Cardwell, Brittany.....	51	Heersmink, Richard	59
Chan, Jason	82	Herff, Steffen.....	48
Clark, Andrew.....	84	Hertel, Paula.....	37
Clifasefi, Seema	66	Heyer, Rebecca.....	39
Coane, Jen	75	Hill, Alex	81
Cohn, Melanie.....	43	Hodge, Jack	54
Coley, John	50	Holcombe, Alex	33
Colloff, Melissa	74	Holt, Glenys.....	95
Conway, Andrew.....	69	Hornsey, Matthew.....	78
Cook, John.....	78	Hutchison, Keith	35
Cordonnier, Aline	38	Hyman, Ira.....	62, 87
Crozier, William	95, 97	Irish, Muireann	38, 43
Cullen, Hayley	95	Ito, Hiroshi.....	58
Dahl, Leora	101	Jacques, Peggy St.	83
Dalton, Gary.....	100	Janssen, Steve.....	77

Jay, Alexander.....	84	Panattoni, Katherine.....	56
Jones, Helen.....	79	Pasupathi, Monisha.....	63
Jones, Kristyn.....	98	Paterson, Helen.....	66, 67
Kakoschke, Naomi.....	85	Pearlman, Karen.....	48
Kawaguchi, Jun.....	56	Phillips, Jonathon.....	40
Kemps, Eva.....	85	Portnoy, Shiri.....	95
Kendeou, Panayiota.....	89	Powell, Martine.....	53
Kennedy, Reneau.....	94	Prike, Toby.....	57
Kingo, Osman.....	80	Quigley-McBride, Adele.....	45
Køeber, Christin.....	42, 100	Rainsford, Miriam.....	49
Kontogianni, Feni.....	83	Rajagopal, Priyali.....	85, 102
Kouwenhoven, Marijn.....	61	Rapp, David.....	90
Kuhn, Magdalena.....	41	Reese, Elaine.....	41, 100
Kumar, Devvarta.....	57	Rendell, Peter.....	38, 39
Lah, Suncica.....	43	Rich, Patrick.....	89
Levi, Avraham.....	71	Richardson, Beth.....	96
Levy, Amarel.....	59	Ridgway, Kate.....	56
Lewandowsky, Stephan.....	64, 65, 79, 90	Rindal, Eric.....	45
Loftus, Elizabeth.....	33, 35	Ritchie, Kay.....	39
Lucas, Carmen.....	73	Robertson, David.....	40
Luke, Timothy.....	97	Rosengren, Karl.....	50
Luminet, Olivier.....	76	Rowthorn, Harriet.....	61
Manalo, Emmanuel.....	74	Salgado, Sinue.....	58
Marsh, Jessecae.....	50	Salmon, Karen.....	53
Martire, Kristy.....	95	Sanson, Mevagh.....	93
McDonald, Dawn-Leah.....	92	Sauer, James.....	92, 99
Meissner, Christian.....	72	Scoboria, Alan.....	87, 88
Mennie, Kacie.....	55	Selwood, Amanda.....	64
Mercer, David.....	65	Semmler, Carolyn.....	46
Mercuri, Kimberly.....	39	Shanks, Amanda.....	54
Michael, Robert.....	34	Sharman, Stefanie.....	94
Michaelian, Kourken.....	38	Shaw, John.....	90
Michalski, Dana.....	40	Shi, Liangzi.....	102
Miller, Laurie.....	43	Shtulman, Andrew.....	49
Moeck, Ella.....	93	Siedlecka, Ewa.....	37
Monds, Lauren.....	83	Sita, Jodi.....	91
Moreau, David.....	65	Skalon, Alena.....	60
Mori, Kazuo.....	45	Stevens, Kate.....	47
Morris, Thomas.....	44	Stone, Charles.....	76
Most, Steven.....	91	Suk, Curie.....	67
Moul, Caroline.....	81	Sukumar, Divya.....	60, 97
Mundy, Ian.....	80	Talarico, Jennifer.....	76
Muniroh, Dian Dia-an.....	71	Tanaka, Etsuko.....	74
Nagai, Masayoshi.....	59	Tandoh, Katsuya.....	60
Nahleen, Sasha.....	93	Tay, Kai Rong.....	54
Nash, Robert.....	46	Taylor, Andrea.....	94
Nayda, Diane.....	49	Taylor, Robbie.....	86
Newman, Eryn.....	75	Temler, Misia.....	45
Nightingale, Sophie J.....	68, 91	Teoh, Yee-San.....	80, 96
Nishiyama, Megumi.....	55	Thomas, Ayanna.....	90
Nishizaki, Yukiko.....	58	Thompson, William.....	48
Niven, Elaine.....	82	Toglia, Michael.....	59
Nourkova, Veronika.....	77	Tribble, Evelyn.....	47
Numbers, Katya.....	35	Tupper, Nina.....	70, 72
Otgaar, Henry.....	87	Visser, Mandy.....	101
Oulton, Jacinta.....	37	Vredeveldt, Annelies.....	63
Palmer, Matthew.....	69	Wade, Kimberley.....	60

Wake, Kimberley.....	86	White, David.....	40, 92
Walsh, Erin.....	58	Willis, Megan.....	92
Wang, Qi.....	62, 76	Wolf, Tabea.....	55
Warmelink, Lara.....	96	Wong, Stephanie.....	44, 74
Waters, Theodore.....	42, 99	Wyver, Shirley.....	52
Webster, Vana.....	53	Zaragoza, Maria.....	35
Weinsheimer, Camille.....	46	Zijlema, Annemarie.....	54, 88
Westera, Nina.....	94	Zloteanu, Mircea.....	85
Westgate, Shannon.....	55	Zwieten, Anita van.....	67
Wheeler, Rebecca.....	46, 71		

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