

Schedule Saturday June 29th

09:00 – 10:40

Papers and Symposia

Room 1

Retrieval support in investigative interviewing

Chair: Lorraine Hope

Many advances have been made in techniques for interviewing witnesses and victims of crime. The focus of this symposium is the extension of these advances to various interviewing scenarios with different populations. The studies in this symposium outline insights to potentially enhance and/or preserve the memory of witnesses and victims of crime through different retrieval techniques. A well-known best-practice technique for interviewing eyewitnesses, the Cognitive Interview (CI), led to fewer inconsistencies for young adults who were later repeatedly questioned, only if the repeated questioning was not conducted in conjunction with negative feedback. A written version of the CI, the Self-Administered Interview[®] (SAI), improved older adults' memory and led to transfer of memory skills to future events. Another study in this symposium showed the utility of retrieval support when interviewing individuals with autism spectrum disorders (ASD), who had impaired recall in free recall scenarios when not supported with questions from the interviewer. Last, the development and use of the Person Description Interview (PDI) will be discussed, whereby retrieval support and prompting led to useful ante-mortem (AM) data regarding victims of crime or disasters. The utility of these

techniques will be discussed in the context of investigative interviewing practices of today.

Lauren Wysman, Alan Scoboria, Julie Gawrylowicz & Amina Memon The Cognitive Interview (CI), repeated questioning, and negative feedback: An analysis of response shifting

The Cognitive Interview (CI) characteristically leads to the output of more correct information than control interviews, with stable errors and accuracy. The present study examined whether the CI was protective against the effects of repeated questioning and negative feedback. Undergraduates watched a crime video and were interviewed with a CI or a Free Recall. One week later, they were asked a set of questions twice. Half of the participants received negative feedback between question sets. The CI led to fewer inconsistencies when individuals were repeatedly questioned without negative feedback. An analysis of types of response shifts will be discussed.

Julie Gawrylowicz, Amina Memon & Alan Scoboria Enhancing older adults' eyewitness memory for present and future events with the Self-administered Interview

The Self-administered Interview (SAI) typically leads to more correct output from younger witnesses than Free Recall (FR). Does the SAI also improve senior witnesses' recall? And if so, do the beneficial effects transfer to future events? During the current study, older adults recalled an event either with the

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SAI or with a FR. After one week, participants watched a second event and freely recall its content. For the first event, participants reported significantly more correct details with the SAI than with the FR. For the second event, experienced SAI participants reported significantly more correct details than those inexperienced with it.

Katie Maras, Amina Memon, Anna Lambrechts & Dermot Bowler Recall of a live and personally experienced eyewitness event by adults with autism spectrum disorder

The present study examined whether witnesses with autism spectrum disorder (ASD) demonstrate a facilitative effect on memory for self- over other-performed actions. Adults with and without ASD participated in a live event, in which they and the experimenter performed several actions. Participants were subsequently interviewed about the event. Both groups recalled more actions that they had performed themselves than actions that the experimenter had performed. However, the ASD group was more likely than their counterparts to confuse the source of self-performed actions in free recall, but not in questioning, which may indicate executive functioning difficulties in unsupported retrieval contexts.

Fiona Gabbert, Jan Bikker, Ashleigh McGregor & Lorraine Hope Disaster victim identification: Piloting a new technique to elicit highly detailed person descriptions

Ante-mortem (AM) data includes any detail relating to a person during their life that could assist in identifying them after

death. Obtaining reliable information is therefore vital. However, there are grounds for concern surrounding current procedures to obtain AM data. In response to this, we developed and piloted a new technique - the 'Person Description Interview' (PDI) - to elicit detailed person descriptions via the use of retrieval support and open prompts for information. To test the PDI participants described someone they knew, using either standard AM procedure, a PDI, or a Free-Recall test. Initial findings will be discussed.

Discussant: **Lorraine Hope**

Naka Makiko, Okada Yoshinori & Fujita Masahiro The effect of different questioning styles in examination on lay-judges' sentencing in a criminal court

We conducted a web survey where 1944 participants read a criminal case court examinations gave a guilty/not guilty judgment and decided the sentence. Examinations were conducted with either open-ended questions (Open-exam) or closed-questions (Closed-exam.) Evidence other than examinations (presence/absence of victim's fault and the sentence requested by a prosecutor/a lawyer) were also manipulated. Results showed the sentence given by those in Closed-exam condition compared to that in Open-exam condition was more affected by evidence other than examinations suggesting that testimonies elicited by closed questions (mostly confirmation of what an examiner said) did not convey much information for decision making.

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Room 2

The role of autobiographical memory and the self in future thinking

Chair: Azriel Gryzman & Clare Rathbone

The relationship between autobiographical memory (AM) and future thinking presents an opportunity for researchers to better understand AM by examining one of its applications, planning for the future. This symposium considers the role of AM in constructing and simulating possible future events. In doing so, we consider prominent elements of AM that may also influence future simulations. Thus, one of the questions addressed is: what makes simulations of future events memorable? Contributors consider various possibilities, including the role of positive emotions and the phenomenological details of the simulations. Another central topic of inquiry is the role of the conceptual self, around which memories and future simulations may be organized. One contributor compares memories and future simulations for the self to memories and future simulations for known others; another examines populations with qualitatively different self-concepts, i.e. participants with Autism Spectrum Disorder, to understand the role of the self in deficits in AM and future event simulations.

Victoria C. Martin, Daniel L. Schachter & Donna Rose Addis Constructing a memorable future

Humans spend a great deal of time thinking about the future. In particular, information from autobiographical memory can be used to construct detailed simulations of future events. If simulations are to guide and enhance our future behaviour, it is critical that they are successfully encoded and maintained in memory. In this talk, we consider the role of the hippocampus and related brain structures in the successful encoding of future simulations. We also discuss a new study examining whether the memory details comprising a simulation and/or the phenomenology of the simulation itself influence whether a simulation will be memorable.

Karl K. Szpunar Memory for simulations of the future: Implications for psychological well-being

On a daily basis, people simulate multitudes of hypothetical future scenarios that are often emotional in content and that may or may not ever take place in the real world. To date, little is known about the cognitive and emotional consequences of frequent simulation of the future. We examined how well people remember the details of simulations of the future. We found that, over time, details associated with negative simulations of the future deteriorate more quickly than details associated with positive or neutral simulations. The findings are interpreted in terms of psychological well-being and implications for mood and clinical disorders.

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Celine Souchay, Chris Moulin & Matilda Ohlsson Present and future selves in autism spectrum disorder

Autism Spectrum Disorder (ASD) is a disorder primarily affecting social interaction and communication. Recently, studies showed deficits in autobiographical memory (Tanweer et al., 2010) and future thinking (Crane, et al., 2012 ; Lind & Bowler, 2010), potentially as a consequence of a diminished self-concept (Lind, 2009). We directly assessed this idea, looking at present and future selves in relationship with Autobiographical memories using the 'I AM' task (Rathbone et al., 2008). Results showed that on selected 'I Am' and 'I will be' statements, adolescents with ASD generated fewer episodic autobiographical memories and fewer episodic future events. This was also associated to qualitatively different current and future self-concepts. Findings are discussed in the context of current conceptual models of memory.

Azriel Gryzman, Janani Prabhakar, Stephanie M. Anglin & Judith A. Hudson
The time travelling self: Comparing self and other in narratives of past and future events

The self-enhancement bias, in which people imagine a substantially better future than the experienced past, has been well-documented. Possible explanations include exaggerated optimism, temporal self-appraisal, and a biased memory search that selects life script events. In order to disentangle these influences on future thinking, participants

were instructed to report past and anticipated future events for the self, a close friend, or an acquaintance. Questionnaire data and narrative content analysis indicated future self-enhancement that is independent of life script events. Results deepen an understanding of future thinking that is more than applying episodic memory capabilities to future scenarios.

Discussant: **Dorthe Berntsen**

Steve Whittaker & Artie Konrad
Autobiographical Memory and Well-Being

Reviewing past personal memories has demonstrable well-being benefits. A field study using a novel computational method compared two mechanisms that might explain this reflecting on past events or simply recording them. Both Recording and Reflecting increased well-being but there were no additional benefits of Reflecting over Recording. Content analysis suggests different mechanisms for Recording and Reflection: Recorders who focused on relationships showed greater well-being increases whereas Reflectors focusing on goals and actions benefited most. Our findings have practical therapeutic implications; events can be written about and processed as they are happening without needing to revisit painful experiences.

Room 3

Problems with voluntary and involuntary memory for trauma

Chair: Melanie Takarangi

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Recently, researchers have devoted considerable effort to examining issues related to the development and maintenance of Post Traumatic Stress Disorder (PTSD; Dunmore, Clark, & Ehlers, 2001; Ehlers & Clark, 2000; Ehling, Ehlers, & Glucksman, 2006). Problems with memory have emerged as a key issue. We know, for example, that people suffering from PTSD paradoxically struggle with both involuntary and intentional memories of a traumatic event. On one hand, people suffering from PTSD often experience intrusive recollections for the traumatic event. On the other hand, they can have difficulty retrieving a “complete” memory of the event. In this symposium, we will present five talks that consider different problems with traumatic memory, from overgeneral memory to the role of memory distortion in affecting psychological adjustment to trauma, memory intrusions and the measurement of those intrusions. More specifically, our research aims to address: a) the relationship between overgeneral autobiographical memory and post-traumatic stress disorder symptoms in children, b) why people might falsely recall the most critical aspects of a traumatic event, c) whether traumatic memory organization affects intrusive memory frequency, d) the psychological and physiological effects of alcohol on intrusive memories, and e) the reliability of people’s self-reported intrusive symptoms.

Caitlin Hitchcock, Reg Nixon & Nathan Weber A longitudinal examination of overgeneral memory and

psychopathology in children following recent accidental injury

This study represents the first longitudinal examination in children of the trajectory of overgeneral autobiographical memory (OGM) and how this relates to psychopathology immediately after trauma exposure. Data were collected from fifty 7-17 year olds who had experienced a high-impact or low-impact trauma, and from twenty five controls. First, we demonstrated that only a high-impact event was associated with increased OGM. Although OGM was not related to depressive symptoms, the relationship between OGM and posttraumatic stress disorder symptoms changed over time. Finally, we found no evidence that the CaR-FA-X model of OGM (Williams et al., 2007) was applicable to children.

Deryn Strange & Melanie Takarangi Manipulations at encoding affect error rates for a traumatic film

Recently, we showed participants a traumatic film with parts removed. After a delay, we found that people falsely remembered seeing the content that we had removed, and were most likely to falsely recall the most critical aspects of that film (Strange & Takarangi, 2012). Here, we examined whether we could manipulate that effect by: 1) making the gaps in the film salient with visual static; 2) adding a warning that gaps were present; or 3) also adding a label explaining what had been removed. As predicted by the Source Monitoring Framework, warnings

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reduced errors and labels increased errors.

Daisy Segovia, Deryn Strange & Melanie Takarangi Disorganized memories of traumatic events promote intrusions

Research indicates that people with PTSD describe their recall as fragmented and poorly organized, and often complain about involuntary intrusions of vivid and emotional aspects of the event, consisting of sensory (e.g., sights, sounds) impressions (e.g., van der Kolk & Fisler, 1995). Ehlers and Clark (2000) proposed that this pattern of memory characteristics is due to the way in which the trauma is encoded. We tested whether the organization and sensory impressions of an analog traumatic film affected the reported number of intrusions. Results revealed that the disorganized film produced more intrusions within a week compared to the temporally correct film.

Melanie Takarangi, Heather Flowe & Joyce Humphries The effects of alcohol on the development of intrusive memories for sexual assault

Currently, research examining the effects of alcohol consumption on traumatic memories is sparse. We examined the psychological and physiological effects of alcohol on spontaneous intrusive memories of a sexual assault scenario. Subjects were allocated to a placebo, low dose or high dose condition, and given true or false information about their beverage content. We monitored intrusive cognition both immediately and during the 24 hours after analogue trauma

exposure. Our results show that alcohol expectancies and dosage both play a role; these data will assist our understanding of how PTSD develops in sexual assault victims, in cases where alcohol is involved.

Melanie Takarangi, Deryn Strange & D. Stephen Lindsay Approaches to measuring intrusive thoughts about trauma

Research examining people's maladaptive responses to traumatic experiences relies on self-reported intrusive thoughts. However, we know from the mind wandering literature that people are not always aware of the content of their thoughts, and may fail to realize when the object of their thoughts has shifted. We exposed subjects to a traumatic film, then measured self-reported intrusive thoughts about the film and mind-wandering. Subjects spontaneously reported thinking about the film, but they also were 'caught' engaging in unwanted thoughts about the film. These data suggest people may lack meta-awareness of their trauma-related thoughts, and have implications for theory and treatment.

Tammy Marche, Jennifer L. Briere & Carl L. von Baeyer Developmental and Individual Differences in Children's Negative Memory Bias

Children's negative memory bias was examined by asking children to recall physically painful experiences and to participate in a pain task. A negative memory bias was more likely when: children were older; they remembered the experience more negatively with more clarity and more emotion; when they reported less trait anxiety; and when they

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had more prior pain experiences and lower pain tolerance. During the pain task the negative memory bias was associated with greater state anxiety and stronger belief in pain coping ability. Understanding children's ability to cope with negative experiences may improve their psychological well-being.

Room 4

Chair:

Heather Buttle, S. Mohktari & P. Cannon
Emotional content and affective context

The global precedence effect has been shown to be affected by various perceptual and cognitive factors. The focus of this series of studies was to examine effects of the participants' affective context and the stimuli' emotional content using schematic face stimuli as the global detail on a local level. Different mood induction procedures revealed a changing pattern of effects on response time while effects of the facial expressions remained constant. Overall these experiments indicate that both content and context matter and should be considered together when evaluating global/local-processing effects.

Gabriel I. Cook, Paul S. Merritt, Keith B. Lyle & Blake T. Bennett Perceptual Fluency and Valence Influence JOLs and Recall Differently for Pure and Mixed Lists

Manipulations of processing fluency often influence judgments of learning (JOLs) without influencing veridical memory. We present two experiments to investigate

how font size and stimulus valence influence both JOLs and word recall. Participants studied word presented in both small and large font sizes. In Experiment 1 participants studied both neutral and negative words in the same study list (mixed list) whereas in Experiment 2 participants studied either neutral words or negative words (pure list). JOLs and recall performance depend on relative distinctiveness and criterial features of studied words. The role of stimulus valence on the perceptual-fluency effect will be discussed.

Lauren Knott, Yasir Mahmood & Mark L. Howe The impact of negative emotions on bilingual's false memories

This study investigates the false recall of emotionally laden information in bilingual speakers by examining the degree to which emotional information transfers from one language at encoding to another at retrieval. Our findings suggest that emotional concepts might be language dependent and that priming of emotionally laden information by associative activation does not occur across languages. Emotional concepts are context (or language) dependent and the amount and accuracy of recall of negative events depends on the language the event was encoded in and the subsequent language used to retrieve it.

Misia Temler, A. J. Barnier, J. Sutton & D. Mcllwain Was it a Red Shirt or a Blue Shirt?

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This study demonstrates that the Social Contagion paradigm can be used to contaminate concrete details in autobiographical memories that are unshared emotional and well rehearsed. In phase 1 the participant recalled memories of four autobiographical events. One week later in phase 2 the participant and a confederate alternated describing to each other the other person's autobiographical events. The confederate included perceptual and contextual contagion items in the participant's events. The participant then individually recalled their own autobiographical events. Participants exhibited social contagion. This effect was more prevalent for schema consistent items. This has important implications for forensic contexts.

Saima Noreen & M. D. MacLeod To think or not to think, that is the question: Suppression and rebound effects in autobiographical memory

Two studies sought to establish the durability of intentional forgetting effects. In both studies participants completed the Autobiographical Think/No-Think procedure which involved recalling some memories and not-thinking/thinking about other memories. Participants were tested for the memories immediately after and following a delay of either 3-4 months or 12-13 months. Both studies revealed that although participants were successful at forgetting memories these effects did not persist. Instead poor-suppressors demonstrated greater recall of a no-think-than baseline memories. These findings

suggest that the effects of suppression practice extend beyond the suppression phase during which they were or were not successfully induced.

Olivier Luminet Induced forgetting and reduced confidence in our personal past

We investigated whether the extent to which individuals are confident in their autobiographical memories (AMs) shifts as a result of selective retrieval. To examine this, we used the retrieval-induced forgetting (RIF) paradigm with emotional AMs. We found the standard RIF effect for memory recall across emotional valence. More interestingly, we found that the confidence ratings for positive AMs mirrored the RIF pattern: decreased confidence for related, unpracticed AMs relative to the baseline. However, for negative AMs, we found increased confidence for both practiced AMs and related, unpracticed AMs. We discuss these results in terms of accessibility, AMs and personal identity.

Room 5

Chair: Heather Flowe

Michael Greenstein & Nancy Franklin
Lineup Creation and Anger

Anger is known to simplify cognition and lower decision thresholds resulting for example in increased false IDs by witnesses. We investigated how lineup quality is impacted when the person selecting fillers is angry and we found anger to reduce both filler quality and functional lineup size. In addition to the

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dangers of identification by angry witnesses this demonstration that detectives who are emotionally invested in a case may pose risks to identification diagnosticity, in particular by artificially increasing suspect identifications. Our work suggests that double-blind procedures may be critical not just for lineup administration but also for lineup creation.

Kimberly Wade Replicating distinctive facial features in lineups

Research shows that replicating a distinctive feature across lineup members enhances identification performance, relative to removing that feature on the target. In a recognition-memory task, we demonstrated that with young adults, replication results in more target identifications than does removal in target-present lineups and replication does not impair performance, relative to removal, in target-absent lineups. Overall, older adults performed significantly worse than young adults; moreover, older adults showed a minimal benefit from replication over removal. This fits with the associative deficit hypothesis of aging, such that older adults form weaker links between faces and their distinctive features.

Heather Flowe Configural and Holistic Processing in simultaneous and sequential lineups

We examined configural and holistic processing in simultaneous and sequential lineups. In Experiment 1, participants studied upright images (a face or house) and were tested on a simultaneous or sequential lineup of upright or inverted

images. In Experiment 2, the composite paradigm was employed, with the test faces presented either simultaneously or sequentially. ROC analysis indicated that participants in the simultaneous condition outperformed those in the sequential condition.

Charity Brown, Charlie Frowd & Emma Portch The Holistic-Cognitive Interview: When is it most effective in improving facial composite quality?

Witnesses to crime may participate in a Cognitive Interview (CI) and produce a facial composite. These facial likenesses are often poorly recognized. The Holistic-Cognitive Interview (H-CI) was devised to improve composite quality. Here during encoding participants knew or did not know to attend to a target person. They were interviewed 3-4 hours or 2 days later using the H-CI or CI and produced a composite. The H-CI led to more recognizable composites when participants knew to attend to the face during encoding regardless of when the interview occurred. The results inform recommendations about when the H-CI improves composite quality.

Daniel Bernstein, Alan Scoboria & Robert Arnold Suggestion affects the formation and then the consequences of false memory

We re-analyzed data from six published studies (N = 1369) to determine how suggestion influences the formation and consequences of false memory. Participants answered questions about their experiences with preferences for and

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intentions to eat different foods. One week later participants received feedback that either suggested a false childhood food event (suggestion participants) or did not suggest an event (controls). Participants again answered questions about their food experiences preferences and intentions. Suggestion affected belief in the target event and this suggestion-belief pathway affected preference for and intention to eat the target food.

Jamal K. Mansour R. C. L. Lindsay and Jennifer L. Beaudry Comparing choosing accuracy and confidence in single- versus multiple-trial lineup experiments

Researchers typically use a single-trial method to study eyewitness identification. This method is ecologically valid but resource intensive. A multiple-trial method would increase power but may lack validity. We tested whether choosing accuracy and confidence varied across 24 trials where participants viewed a mock crime and made a lineup decision on each trial. We found large variability in performance by trial but generally performance was unrelated to trial number and did not interact in systematic ways with expected memory strength degree of disguise or lineup type. A multiple-trial approach may be viable for studying some aspects of eyewitness identification.

10:50 – 11:05

Break Coffee/tea/water (provided)

11:05 – 12:35

Papers and Symposia

Room 1

Mnemonic effects of retrieval practice : Exploring practical applications of laboratory findings
Chair: Andrew Butler

Research in cognitive science has shown that retrieving information from memory improves people's ability to remember that information in the future (see Roediger & Butler, 2011; Roediger & Karpicke, 2006) and apply their knowledge in new contexts (e.g., Butler, 2010; Carpenter, 2012; Kang et al., 2011). Often referred to as the *testing effect*, this phenomenon is robust: the basic finding has been replicated over a hundred times and its generalizability across different types of learners, contexts, and materials is well established. Much of the testing effect research has been conducted in the laboratory with educationally relevant materials, such as foreign language vocabulary and prose passages. This symposium highlights new research that explores practical applications of the testing effect within a variety of domains, ranging from online education to learning to navigate new visuospatial environments. Each presentation examines how retrieval practice should be implemented (e.g., spacing schedules, interleaving, feedback, etc.) in order to best promote long-term retention and transfer of learning, while also reducing forgetting and interference. Overall, this collection of studies on the testing effect suggests that practicing retrieval can produce substantial mnemonic benefits

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that improve learning in real-world settings.

Shana K. Carpenter, Jonathan W. Kelly & Lori A. Sjolund The effects of retrieval practice on visuospatial learning

The *testing effect* has been widely demonstrated for verbal materials, but has not been fully explored with more complex non-verbal learning. This talk reviews recent studies that have begun to explore the effects of retrieval on various forms of visuospatial learning such as two-dimensional maps and object arrays, locations of objects within a three-dimensional space, and navigation of virtual and real environments. Retrieval practice has so far produced benefits over restudying on relatively simple forms of visuospatial learning, but may be limited in enhancing complex forms of spatial navigation, particularly if errors (i.e., wrong turns) are committed during learning.

Sean H. K. Kang, Robert V. Lindsay, Michael C. Mozer & Harold Paschler Retrieval practice over the long term: Expanding or equal-interval spacing?

Landauer and Bjork (1978) argued for the superiority of expanding over equal-interval retrieval practice, whereas more recent research has often failed to find any advantage. However, these studies have mostly compared training within a single session, and assessed effects upon a single final test. For the learning of foreign vocabulary spread over 4 weeks, we found that expanding practice (sessions separated by an increasing number of days) produced equivalent recall to equal-

interval practice on a final test given 8 weeks after training. However, the expanding schedule yielded higher average recallability over the training period, which is arguably an important benefit.

Jessica A. LaPaglia & Jason C. K. Chan Two is better than one: Additive benefits of testing and directed forgetting on new learning

We examined the influence of retrieval practice and directed forgetting on retention and new learning. Subjects learned two lists of words. After studying list 1, subjects either took a recall test or not, they were then told to remember or forget the list. Subjects then learn list 2 before they were told to recall words from both lists. Retrieval practice eliminated the directed forgetting impairment for list 1 words. Moreover, directed forgetting and retrieval practice produced additive benefits on list 2 learning, leading to a proactive facilitation effect.

Karl K. Szpunar, Novall Y. Khan & Daniel L. Schacter Remembering online lectures: Interpolating memory tests reduces mind wandering and improves learning

The recent emergence and popularity of online educational resources brings with it challenges for educators to optimize the dissemination of online content. In two experiments, we demonstrate that the simple act of interpolating online lectures with memory tests can help students sustain attention to lecture content in a manner that discourages task-irrelevant mind wandering activities, encourages task relevant note taking activities, and

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improves learning. Importantly, frequent testing was associated with reductions in subjective estimates of cognitive demand, and also with reduced anxiety toward a final cumulative test. Our findings suggest a potentially key role for interpolated testing in online education.

Andrew C. Butler, Elizabeth J. Marsh, J. P. Slavinsky & Richard G. Baraniuk Findings from a new cyberlearning system based on cognitive science

The United States faces a crisis in STEM education, but the ongoing cyberinfrastructure revolution holds great promise for averting this crisis. This talk communicates findings from a new cyberlearning initiative that aims to put powerful learning tools in the hands of educators and learners. OpenStax Tutor combines simple yet powerful principles of learning from cognitive science (retrieval practice, spacing, and feedback) with data-driven machine learning algorithms. Two experiments showed that using OpenStax Tutor for homework assignments significantly increased long-term retention and transfer of core concepts in an undergraduate engineering course relative to standard educational practice ($ES = .75$).

Room 2

Autobiographical memory, self-identity, and trauma

Co-Chairs: Adam D. Brown

Autobiographical memories feature prominently in such important aspect of our lives as personal losses and public tragedy. In the aftermath of a traumatic

event autobiographical memories and self-appraisals play a key role in post-trauma trajectories of resilience, distress, and recovery. To date, applied experimental research has helped to characterize links between autobiographical memory and self-identity in PTSD, and has guided today's most effective treatments, such as exposure therapy. However, despite these valuable advances, further clarification of how autobiographical memory and self-identity contribute to the pathogenesis of PTSD may help to better identify individuals most vulnerable to developing the disorder and may aid in increasing the efficacy of current interventions. This symposium highlights new applied experimental work aimed at the intersection of autobiographical memory, self-identity, and trauma. Papers are designed to address such questions as: (1) What role does autobiographical memory play in the trajectories in the aftermath of a traumatic event? (2) How can autobiographical memory be used to enhance emotion regulation and coping? (3) Do changes in self-views alter the characteristics and content of autobiographical memories? (4) How can autobiographical memory increase the efficacy of interventions?

Adam D. Brown, Julie Krans, Amy Joyscelyne, Charles R. Marmar & Richard A. Bryant Enhancing self-efficacy through an autobiographical memory induction to reduce intrusions

Although intrusive memories are considered a hallmark symptom of posttraumatic stress disorder (PTSD), the mechanisms underlying their onset and

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how best to reduce them are not fully understood. This talk will discuss analog and clinical studies employing a novel induction in which autobiographical memories are used to prime self-appraisals associated with perceived self-efficacy and controllability in order to reduce levels of distress and intrusions following exposure to trauma-related stimuli. Across several experimental studies results show that recalling self-efficacy related autobiographical memories led to fewer intrusions. Theoretical implications and the potential use of enhancing self-efficacy in treatment will be discussed.

Adriel Boals & David C. Rubin Completing autobiographical memory questionnaires as a mild form of exposure therapy

Recent evidence suggests completing the Autobiographical Memory Questionnaire (AMQ) in relation to a stressful event produces significant reductions in PTSD symptoms. This effect has been found in both younger and older adult samples, and using both quasi-experimental and experimental designs. The most likely explanation is completing the AMQ serves as a mild form of exposure therapy. Completing this measure requires the respondent to reinstate the memory and consider sensory, narrative, and emotional properties of the memory. This comprehensive reliving of a stressful memory in a safe environment is the basis of exposure therapies and presents interesting potential clinical implications.

Kim B. Johannessen, Annette Bohn, Søren Staugaard & Dorte Berntsen

Positive and negative memories in Danish soldiers 2-3 months after deployment in Afghanistan

This study compares the characteristics of positive and negative deployment memories in 337 Danish soldiers 2-3 months after deployment to Afghanistan. The soldiers filled out the Autobiographical Memory Questionnaire and the Centrality of Event Scale (CES) for both memories. The memories were coded by two independent raters for specificity, coherence, degree of disorganization, and whether the memory had combat related content. Soldiers who scored high on PTSD-symptoms also scored high on the CES for both memories. At the same time, both negative and positive memories which dealt combat were more specific and were rated more central to identity and life-story.

Ineke Wessel Self-discrepancies and autobiographical memory specificity in a nonclinical sample

Reduced Autobiographical Memory Specificity (rAMS) is associated with mood and trauma-related disorders and there is only very little evidence for the occurrence of this phenomenon in non-clinical participants. However, recent work suggests that rAMS is observed in healthy participants when cues represent discrepancies between their ideal self and their present state. The present study addresses this issue comparing memory specificity in non-depressed undergraduates in response to either idiosyncratic self-discrepant or standard (affective) AMT cues. Preliminary findings

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will be presented and their relevance for the Capture and Rumination hypothesis of rAMS in the clinical literature will be discussed.

Rafaële J. C. Huntjens, Agnes van Minnen & Dirk Hermans Autobiographical memory specificity in dissociative identity disorder and complex PTSD

This study investigated autobiographical memory in patients with Dissociative Identity Disorder (DID) compared to control groups of complex PTSD, DID simulators, and normal controls. When recalling autobiographical events, many emotionally disturbed patients summarize categories of events rather than retrieving a single episode, so-called overgeneral memory. One of the mechanisms explaining this truncated memory search is avoidance of the negative affect related to specific memories. As DID patients are considered to be characterized by an avoidant information processing style, we hypothesized and found evidence of overgeneral memory in these patients, specifically in identities self-reporting amnesia of experienced traumatic events.

Room 3

Current approaches to the study of flashbulb memories

Chair: Jonathan Koppel

Flashbulb memories (FBMs) refer to memories of the circumstances in which individuals first learn of a consequential event (often a public event, though not necessarily so). Each of the papers in the proposed symposium addresses an important limitation of the existing FBM

literature. Specifically, Meksin, Phelps, and Hirst, in tracking the consistency of FBMs for the terrorist attack of September 11, 2001 (9/11) over the ten years following the attack, extend the retention interval employed in studies of FBM consistency; Talarico, Kraha, and Boals, in assessing the phenomenology and consistency of FBMs for the death of Osama Bin Laden, extend FBM research to investigations of positive events; Koppel, Winkel, and Hirst, in tracking the consistency of recalled emotion for 9/11, extend investigations of FBMs to memory for the emotional reaction experienced at the time of the event; and Atkinson, Hilliard, Hillman, and Bohannon, in comparing FBMs for a child's injury across the child him- or herself, parents who witnessed the injury, and parents who learned of it later, open up FBM research to explore differences in FBMs between victims of an event, observers, and individuals who discover it at a distance. Olivier Luminet will serve as the symposium's discussant.

Robert Meksin, Elizabeth A. Phelps & William Hirst Remembering public trauma's: Examining the terrorist attack of September 11, 2001 over a ten year period

Traumatic public events can leave lasting memories of the events themselves (*event memories*) and memories for the circumstances in which one learned of the event (*flashbulb memories*). We report on a 10-year longitudinal study of memories for the terrorist attack of 9/11. For both event and flashbulb memories, forgetting rates were steep the first year, but then flattened over the next nine years.

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Confidence ratings remained high throughout. Flashbulb memories took on a canonical form after the first year. For event memories, there was no pattern in the errors across time. The roles of media and conversational interactions are discussed.

Jennifer M. Talarico, Amanda Kraha & Adriel Boals Differences between flashbulb memories of positive and negative events

Changes in memories for the death of Osama bin Laden (compared to an everyday autobiographical memory) were examined, replicating Talarico & Rubin's (2003) study of the terrorist attacks of 9/11/01. The positive flashbulb memories were not significantly different from everyday memories in ratings of vividness or confidence in their accuracy; ratings decreased over time. Everyday memories were less consistent than flashbulb memories but did not lose consistency over time. Flashbulb memories lost consistency and were significantly less consistent at one-year than at any earlier time point. Differences in emotional intensity may account for differences between positive and negative flashbulb memories.

Jonathan Koppel, Rebecca Winkel & William Hirst Factors driving inconsistency in recalled emotion for September 11, 2001

The present research tracked shifts in current emotions, as well as memory for initial emotional reactions, regarding the terrorist attack of September 11, 2001. We conducted four assessments, spanning

the ten years following the attack. Consistency in memory for past emotions was related to the stability of current emotions over time, with less stability of current emotions associated with weaker mnemonic consistency. Furthermore, when current emotions were unstable over time, one's current emotions played a significant role in driving inconsistencies in recall for past emotions. We interpret these findings under the rubric of implicit theories of emotional progression over time.

Dominic Atkinson, Adam Hilliard, Jenna Hillman, & John N. Bohannon III Flashbulb microcosms: Memories of parents for their children's injuries

228 participants (114 parents, 114 children) recalled an injury that occurred to the child before the age 18. Roughly half the parents watched the injury occur and the rest were informed later. Probed memory and free recall narratives indicated parental memories were more extensive when the parent saw the injury, and more consistent with the child's account when they recounted more. Children, aged less than six, recalled their injury as extensively as teenagers. These results mirror public flashbulbs but with memories of all principles assessed: the victims, the observers and those that discover the event later and at a distance.

Discussant: **Olivier Luminet**

Room 4

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This symposium did not really occur: Recent advances in the study of nonbelieved memories

Chair: Alan Scoboria

Research on beliefs in autobiographical memories has tended to focus on memories that are believed to have occurred or on the development of new (oftentimes false) memories. The current papers present recent research on the counterintuitive phenomenon of nonbelieved memories. Nonbelieved memories are defined as memories that were once believed to be true, but for which the person has decided to withdraw their belief that the event occurred. Despite this withdrawal of belief, the mental representation for the event continues to be experienced much like a believed memory. These talks present new research and theory on naturally occurring and laboratory produced nonbelieved memories. Specifically these: demonstrate manners for the study of nonbelieved memories in the laboratory, thereby extending experimental control over the phenomenon; describe the reasons that people with nonbelieved memories provide for withdrawing belief, thus providing insights into the bases for the decision to withdraw belief in an event; and provide a model regarding the processes involved when individuals decide to maintain versus relinquish belief in memories. Together these talks provide novel insights into the revision of memory and the relationship between belief in occurrence and recollection for events.

Henry Otgaar Experimentally inducing nonbelieved *true* and *false* memories using an imagination inflation procedure

Experimental work into the field of nonbelieved memories is scarce. To date, studies have only experimentally induced nonbelieved *false* memories. In this experiment, we used an adapted imagination inflation procedure for action events to elicit nonbelieved *true* and *false* memories. Participants heard simple action statements (e.g., flip the coin) and were instructed to perform or imagine the action. After one-week, participants received a recognition test. Critically, for some performed actions, participants were suggested that they imagined them while for some imagined actions, suggestion was provided that they performed them. Phenomenal differences between nonbelieved true and false memories will be discussed.

Robert A. Nash, Giuliana Mazzoni & Andrew Clark Producing nonbelieved false and true memories of recent experiences

In two experiments we attempted to evoke nonbelieved memories of people's recent experiences. In Experiment 1, we first used doctored video-evidence to create confident false memories in subjects of performing simple actions. We then debriefed subjects about the doctoring procedure. In Experiment 2 we repeated this procedure, but this time we showed subjects genuine video-evidence of their actions that we then falsely claimed was doctored. In both experiments, we examined changes in subjects' belief and memory ratings

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before vs. after the 'debriefing'. We found evidence that debriefing can selectively reduce belief, whilst leaving the subjective memory characteristics intact.

Chantal Boucher, Alan Scoboria & Giuliana Mazzoni Reasons for withdrawing belief in the occurrence of autobiographical memories

Mazzoni, Scoboria & Harvey (2010) reported three broad reasons for the withdrawal of belief in memories: social feedback, implausibility, and contradictory evidence. In the current study we used a sample of 362 nonbelieved memories to identify a comprehensive set of reasons that people provide for withdrawing belief in their memories using. This resulted in the identification of eight major categories (social feedback, external evidence, internal features, motivation, plausibility, alternate attributions, general memory beliefs, consistency with self/others) and 29 subcategories. The nature of the categories, the frequency of their endorsement, and their correspondence with other phenomenological ratings will be reported and their implications discussed.

Alan Scoboria Social influence and the evaluation of belief in the occurrence of memories

Phenomena such as nonbelieved memories and contested memories draw attention to the influence of social input on beliefs in the occurrence of autobiographical memories. In some cases people relinquish and in other cases they defend their belief in the memory. In this talk I present a preliminary model of the

processes that are engaged when a believed memory is challenged by disconfirmatory social feedback. Based on prior theory and empirical evidence, the model describes heuristic and systematic decision-making processes that determine whether belief in the memory is maintained or relinquished, and whether this decision is output to the social environment.

Discussant: **Steven Lindsay**

Room 5

Chair: Veronika Nourkova

Eva Literakova Enhancing coherence at the expense of correspondence: False recall of autobiographical memories in interviews based on diary entries

The paper will present empirical evidence of the innate struggle of our memory between correspondence and coherence. Participants' task was to recall a specific episode from their lives with a clue in a form of short description gathered from respondents' proxies diaries and then provide specific details about it. In the process of event reconstruction participants often made various mistakes e.g. created a new memory from more episodes that shared certain aspects. Examples of these phenomena will be presented and author will also highlight methodological recommendations concerning task-setting for the diary entries.

Nourkova V.V., Brown N., Mitina O.V., Mikhailova K.S. Modeling the impact of transitions on the temporal distribution of autobiographical memories

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The present four-session study was undertaken to examine the role that transitions (Brown & Svob 2012) and self-defining events (Rathbone Moulin & Conway 2008) play in determining the temporal distribution of autobiographical memories. Across sessions participants (n=74) recalled and dated word-cued memories transitional events important events and self-defining memories. A fractal-dimensional model (Mitina Nourkova 2004) was used analyze these data. The results this modeling effort indicates that important events and word-cued memories tend to pile-up around transitions and that there is also a degree of pile-up around self-defining memories.

Sezin Öner & Sami Gülgöz The role of attachment representations on the phenomenology of relationship-specific autobiographical memories

We examined relationship-specific autobiographical memories to test whether differences in attachment styles influenced phenomenological characteristics of memory retrieval. Subjects completed Experiences in Close Relationships Questionnaire reported an important negative memory of their experiences in romantic relationships and provided ratings of memory characteristics. Individuals with high attachment-anxiety rated their experiences as more personally significant reported more reliving from a field perspective and experienced more frequent involuntary recollection. However for highly avoidant individuals experiences were rated as less personally

significant and recalled from the observer perspective. Results are discussed in context of attachment behavior and self-regulatory functions of autobiographical memory.

William B. Brewer & Jason R. Finley Accuracy of Autobiographical Memory: Evidence from a Wearable Camera

Our goal in this study is to establish some of the basic descriptive parameters of autobiographical memory through the use of a small wearable camera to unobtrusively capture pictures from participants' everyday experiences. Nine undergraduates wore SenseCams that took pictures every 10 sec for two days. Cued recall was used to study the participants' memories at intervals of one week and one month. The participants scored their recalls against the pictures of the events they had recalled. The data showed 10% clear memory errors. Our data is opposed to copy theories or strong reconstructive theories.

Kate Smith, B. Dritschel, M. MacLeod & O'Connor Autobiographical memory recall in dysphoric groups

We examined the impact of chapters on autobiographical memory recall in dysphoric and non-dysphoric groups. Chapter-cued memories were classified according to congruence with chapter valence and their subjective characteristics examined. Results from 11 dysphoric participants (compared to 14 controls) reveal an absence of both overgenerality and overall negativity; autobiographical memories were recalled with a range of 'experience near'

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characteristics; reduced emotional fading and higher levels of rehearsal overall while rehearsal of negatively incongruent memories was reduced. Results suggest that for dysphorics recall within the context of a life-story narrative acts to exclude negative events.

12:35 – 14:00

Lunch Break and Deadline Contest

14:00 – 15:30

Papers and Symposia

Room 1

New perspectives on the construction and function of future events

Chair: Anne Scharling Rasmussen

The recent years have spun an impressive amount of research on the construction or simulation of future events. The current symposium presents different perspectives on this constructive process. The first talk presents the results from a functional brain imaging study that aims to identify specific regions of the default network relevant to the different details that are commonly part of simulated future events. The second talk presents findings suggesting that the construction of future events depends on executive processes and is affected by cue imageability to the same extent as is the construction of past events. The third talk presents data from a study, which compared past and future events with a directive function and found that future directive events were rated higher on rehearsal and effects of thinking about the event. The fourth talk demonstrates

findings of the increased positivity bias of future as compared to past events in three clinical and one non-clinical control group. The fifth talk presents evidence for the idea that the construction of future events can be explained from Bartlett's originating theory on autobiographical memory construction. Together these talks illustrate how different levels of processing come together in the construction of future events.

Karl Szpunar Isolating contributions of the default network to future event simulation

In recent years, brain imaging studies have consistently demonstrated that a core or default network underlies the ability to simulate future events. Nonetheless, little is known about the manner in which various regions, or sets of regions, within this network contribute to various component processes associated with future events simulation. Here, we present the results of a new functional brain imaging study that made use of a repetition suppression technique to help identify what regions of the default network are involved in processes relevant to the scenarios, people, objects, and places that are commonly involved in simulated future events.

Katrine Rasmussen & Dorthe Berntsen Autobiographical memory and episodic future thinking - The Role of Cue Imageability and Executive Function

Strategic retrieval of specific past events has been shown to depend on executive processes, and to be affected by cue imageability. This study examined whether episodic future thinking depends on

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executive processes and is affected by cue imageability to the same extent as autobiographical remembering of specific events. Results showed that autobiographical remembering and future thinking were affected similarly by cue imageability, suggesting that retrieval strategy can be manipulated in similar ways for both temporal directions. Furthermore, executive control processes were correlated with number of details in both memories and future thoughts, indicating the involvement of common component processes.

Mevagh Sanson, Eryn J. Newman & Maryanne Garry The properties of remembered and imagined events with a directive function

People use autobiographical memories and imagined future episodes to direct their present behaviour. We compare the properties of these types of events. Subjects described one event and explained how it had helped them when they thought of it. Half the subjects described a memory, and half a future event. Subjects then made various ratings about the event. The events subjects described were varied. Both types of event were rated similarly on many phenomenological characteristics, but imagined events were rated higher on items indexing rehearsal and effects of thinking about the event. The consequences of imagining future events warrant further study.

Anne S. Rasmussen, Carsten R. Jørgensen, Maja O'Connor & Dorthe Berntsen Past and future time travel

(MTT) in patients with borderline personality disorder, eating disorders, obsessive-compulsive disorders and a non-clinical control group

It is well-established that future as compared to past MTT is characterized by an increased positivity bias. The positivity bias for past events has been shown to be reduced in clinical populations, but little is known about the positivity bias of future events in such populations. Here, we asked patients with borderline personality disorder, eating disorders, obsessive-compulsive disorder and a non-clinical control group to generate important past and important future events and to rate the events on emotional valence. Across all four groups, future as compared to past MTT was characterized by an increased positivity bias for future events.

David C. Rubin Future episodic thought: A Theory from Bartlett

Rather than being constructed by reassembling details from episodic memories, future episodic thought is claimed to more strictly follow Bartlett's theory. "Remembering is not the re-excitation of innumerable fixed, lifeless and fragmentary traces. It is an imaginative reconstruction, or construction, . . . (with) a little outstanding detail. . . But there is no evidence that these (details) can operate in determining a specific reaction, except after relatively short periods of delay." Examination of the contents of, rated properties of, and specific reactions to future episodic thought are used to support this claim

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(1932, p. 213-214). Theoretical implications are discussed.

Room 2

The genetic biological and cognitive underpinnings of political temperament **Chair: Michael Dodd**

Recent advancements in the study of genetics, biology, cognition, and neuroscience have afforded the opportunity to better understand the biological underpinnings of human behaviors. There is evidence of a biological component to numerous behaviors across domains including, but not limited to, personality, mental ability, psychological interests, mental illness, and social attitudes. This has led researchers across fields to investigate the extent to which virtually all behaviors are influenced by biology. This line of research has remained controversial, however, as it relates the study of political temperament. A growing body of research finds that political orientations vary with an array of broader constructs such as personality traits, moral foundations, baseline neural structures, response to unexpected stimuli, sensitivity to threat/disgust, and possibly even genetics. This research is in line with work in other areas but in stark contrast to the traditional view that political orientation is driven almost exclusively by one's environment and experience. The purpose of the present symposium is to bring together leading scholars conducting research at many different levels of behavior for a discussion of current trends in political temperament research, what conclusions can be drawn from this work,

and why this line of thinking continues to be controversial.

Michael Dodd, Mark Mills, Kevin Smith & John Hibbing Do you see what I see? Differences in Gaze Behavior, Visual Attention, and Basic Cognition Between Political Conservatives and Liberals

Human behavior is complex and multifaceted meaning that a complete understanding of behavior can only be gleaned by obtaining converging evidence across a variety of domains (e.g., cognitive, biological, behavioral). In the present talk, we present data from a number of different cognitive paradigms (e.g., visual search, antisaccade) that are highly stable—but still sensitive to individual differences—to determine the manner in which political liberals and political conservatives do and do not differ on baseline cognitive tasks. Moreover, we relate these findings to research being conducted at other levels to demonstrate the degree to which these findings converge on similar conclusions.

Bert N. Bakker Personality, SES and preferences for redistribution

Why do people prefer redistribution? Research in political psychology reports weak and inconsistent associations between personality traits and preferences for redistribution. In their research political psychologists have isolated the effects of personality traits independently of citizens' income, and social class. However, one of the building blocks of social science research is that people with a lower social class and lower

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income prefer a strong government which redistributes wealth. Building upon advancements, I theorize that personality traits only exert an effect on political attitudes among those participants who are not constrained by their social economic status. Specifically, I hypothesize that participants with a low socio economic status have a strong preference for redistribution regardless of their personality traits. Contrariwise, citizens with a high socio economic status will have stronger associations between their personality traits and preferences for redistribution. I provide empirical support for these hypotheses in a large sample of the Danish population. Implications for the understanding of political attitudes as well as the personality and politics literature will be discussed.

Lene Aarøe, Michael Bang Petersen & Kevin Arceneaux The behavioral immune system and anti-immigration attitudes: Contextual and Individual Differences Related to Disgust Shapes Opposition to Immigration

Why does the political issue of immigration ignite so strong sentiments? We argue that this is so because immigrants activate biological, visceral mechanisms designed for disease avoidance that operate through disgust and are designed to remain active facing cues that traditionally inspire peaceful co-existence. In cross-national surveys and experiments we 1) demonstrate that disgust-sensitive individuals hold stronger anti-immigration attitudes 2) examine whether cues of infection risk increase these effects, and 3) demonstrate that the

effects of disgust endure even facing cues that have proven to dampen opposition towards immigration in prior research but are unassociated with the behavioral immune system.

Darren Schreiber Your brain is built for politics

Drawing from an extensive body of research, I argue that Your Brain is Built for Politics. Negotiating complex and shifting coalitions drove the human brain to evolve mechanisms that modern humans engage when they participate in national politics. Numerous results are presented to explore how these brain mechanisms underpin phenomena (e.g., political sophistication, political/racial attitudes, moral reasoning). Accurate predictions of party affiliation, election results, and egalitarian attitudes/behaviors are achieved with surprisingly simple models accounting for brain function. Rather than a reductionist or deterministic argument, I contend the shifting coalitions of society require that we are hardwired to not be hardwired.

Room 3

When expressing stress in autobiographical narratives hurts and helps

Chair: Roby Fivush

Whereas much research has shown generally positive effects of narrating stressful experiences on emotional well-being, these effects are moderate, and several studies find detrimental effects for some groups or individuals. Thus a critical avenue for research is to examine the

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conditions under which individuals may or may not benefit from expressing their stressful experiences. This symposium examines multiple factors in whether and how expressing stress is beneficial and/ or detrimental. Across studies, these factors include: individual differences, such as clinical diagnosis and gender; event differences, such as traumatic, stressful and positive experiences; and identity factors, such as centrality of event to self, or marital status. In addition, specific aspects of narrative retellings are examined, including coherence, emotional expression, active searching for meaning, and expression of personal growth. Findings indicate that relations between expressing stress and well-being may be different for clinically diagnosed individuals, for males and females, for those who are actively seeking meaning, and for those who define the experienced events as central to self, and that these relations may be more apparent for expressed emotion within narratives rather than for coherence.

Samantha A. Deffler, Christin M. Ogle & David C. Rubin Autobiographical Narratives of Trauma in PTSD

Narrative content was studied in the positive, negative, and traumatic memories of community-dwelling adults with a formal diagnosis of either PTSD (n=30) or no PTSD (n=30), who were matched on age, gender, and education level. Participants provided narratives and ratings of their three most traumatic (one of which was an A1 trauma), three most positive, and three most important events from their lives. Narratives were analyzed

using LIWC and the NaCC. Group by event-type analyses revealed differences in the ratings and qualities of the memory narratives. Individual measures of narrative content provide their own theoretical insights into cognitive processes.

Robyn Fivush & Theodore Waters Gender Differences in Relations between Memory Qualities and Distress

Previous research demonstrates both positive and negative benefits of expressing experienced stress on psychological outcome. We examined coherence and emotionality of memory through narrative and questionnaire measures of highly negative experiences in relation to multiple measures of current distress among college students. Narrative coherence, but not emotionality, was correlated with questionnaire measures of coherence and emotionality. For males, higher questionnaire measures of coherence and emotionality related to higher PTSD symptoms. For females, higher measures of causal language in narratives were related to less depression and anxiety. Implications of gender for emerging relations between memory qualities and stress are discussed.

Adriel Boals Trauma and Event centrality as a double-edge Sword: The Role of Narrative

The narrative individuals create about their traumatic experiences plays a key role in psychological outcomes. If a negative event is construed as central to identity, it causes a re-examination of

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values and beliefs. This re-examination presents the possibility of psychological devastation. Narratives that feature negative perspectives of the event and negative posttrauma cognitions of the self and world contribute to the development of PTSD symptoms. However, this re-examination also sets the stage for the possibility of growth. Narratives that feature positive perspectives of the event and a lack of negative posttraumatic cognitions contribute to the development of posttraumatic growth.

David A. Sbarra, Adriel Boals, Ashley E. Mason, Grace M. Larson & Matthias R. Mehl Why is Expressive Writing Associated with Poor Outcomes Following Marital Separation?

This study implemented an expressive writing (EW; see Pennebaker, 1997) intervention for adults ($N = 90$) experiencing marital separation. Participants who were actively searching for meaning in their separation reported significantly worse outcomes in EW relative to control writing. We discuss the narrative variables and processes that may limit/promote psychological recovery following marital separation.

Room 4

New perspectives on the temporal distribution of autobiographical memories

Chair: Norman R. Brown

The *Reminiscence Bump (RB)* refers to the tendency for older adults to recall more memories for their formative years than from other times. Although the RB is a

robust and well-studied phenomenon, it continues to stimulate research and theory. This symposium brings together four new studies that advance our understanding of origins, nature, and significance of the RB and other non-monotonicities in the temporal distribution of memorable personal events. Two presentations focus exclusively on the RB. Janssen and Murre demonstrate that the temporal location of the RB depends, in part, on the cue-words used to elicit personal memories. In a similar vein, Conway and colleagues present data on the temporal distribution of flashbulb, self-defining, and cross-cultural memories and report that both positive and negative memories are most often remembered from the formative years. Thomsen focuses on life-story chapters and demonstrates that chapter beginnings and endings cluster during young adulthood and that people typically recall events from chapter beginnings. These findings are consistent with the Transition-Theory account of the RB. Brown and Svob outline this theory in their presentation and also explain how it correctly predicts the existence of an *Upheaval Bump* (1992-1995) in two groups of older Bosnians.

Steve M. J. Janssen & Jaap J. Murre Word-specific distributions of autobiographical memory: Can the location of the reminiscence bump be manipulated by the choice of cue words?

With the Galton-Crovitz cueing technique, participants report with the help of cue words personal events, and date these autobiographical memories. A persistent

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finding is the predominance of events from the ages between 10 and 30 years, called the 'reminiscence bump'. Using the Internet, nearly 140,000 memories were collected with 64 words, which allowed plotting of detailed lifetime distributions for each word. Although many words, like 'chair', 'flower' or 'sugar', mostly triggered memories from the period in which the participants were 5 or 6 years old, other words, such as 'wine', 'baby' or 'army', triggered many memories from a later age.

Dorthe Thomsen Life story chapters and the bump

Extended autobiographical memory, here termed chapters, show a bump, such that individuals report more chapters beginning (and ending) during young adulthood. At the same time, studies have shown that when individuals recall important specific memories from chapters, memories from the beginning of chapters are over-represented. At the very least, these findings suggest that accounts of the bump should also explain the bump in chapters. Combining the two findings also suggest that if chapters guide the recall of important specific memories, chapters may play a role in explaining the bump for these memories.

Martin A. Conway, Qi Wang & Catriona M. Morrison The reminiscence bump revisited

The reminiscence bump (RB) refers to increased recall by adults of autobiographical memories dating to the period of approximately 15 to 25 years of age. Recent research has found that the

RB is only present for memories of emotionally positive experiences and not for memories of negative experiences. We report three studies of recall of flashbulb, self-defining, and cross-cultural memories all of which found RBs for memories of negative experiences. We suggest that the failure to find RBs relates to the type of cue used, when a broader range are used a highly self-relevant RB is observed.

Norman R. Brown, Connie Svob & Peter J. Lee Transition theory and the temporal distribution of memorable personal events

Transition Theory holds that transitional events organize autobiographical memory and spawn memorable personal events. In this presentation, we explain how it accounts for the reminiscence bump ("a pile-up of pile-ups") and why it predicts an *upheaval bump* in populations that have undergone a major collective transition. In support of this position, we present data from two groups Bosnians. As predicted, word-cued event memories were distributed bi-modally. Specifically, the older-group reminiscence bump was more distant from the present than the younger-group bump, but dates covered by the upheaval bump (1992-1995) were the same for both groups.

Room 5

Chair: Tanjeem Azad

Tanjeem Azad & Stephen Lindsay Suggested Invisibility: Erroneous Reports of Not Seeing Event Details

We examined whether people could be swayed to believe in the non-occurrence of certain witnessed details. Subjects

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watched a video and then 2 days later read witness testimonies that stated that details were not visible even though they were clearly displayed. Compared to control details subjects were significantly less likely to report witnessed details when they had been erroneously suggested to not have been visible. Follow-up studies using a modified memory test encouraged subjects to first indicate if they believe that a detail had or had not been witnessed and then report on the subjective phenomenology accompanying that belief.

Thomas C. Ormerod & Coral J. Dando The curse of overshadowing: How to make people worse at detecting deception

Training in behaviour recognition aims to improve deception detection. Yet identifying cues to peoples' affective and cognitive states is rehearsed throughout life. Thinking about skills normally performed without conscious thought can impair performance a phenomenon known as 'overshadowing'. Here participants were trained to detect behaviours thought to be reliable correlates of deception. They then observed video interviews concerning real and fabricated experiences. Trained and untrained participants correctly identified equal numbers of deceivers but trained participants identified fewer truth-tellers. We suggest that training individuals to identify behavioural cues can overshadow automatic skills and make people worse at detecting deception.

Tochukwu Onwuegbusi, Doug Barrett & Heather Flowe Spatial attention can bias the accuracy of eyewitness identification

The aim of this study was to investigate whether reflexive shifts of attention bias the allocation of visual working memory (VWM) resources during the encoding or the maintenance of unfamiliar faces. For uncued faces recall performance declined as a function of load a finding consistent with flexible-resource models of VWM. For cued faces recall accuracy was independent of load but only when the cue was concurrent with faces in the display. These data suggest that the allocation of VWM resources is sensitive to reflexive shifts of attention during the encoding rather than the maintenance of previously seen unfamiliar faces.

Hartmut Blank & Céline Launay How to protect eyewitness memory against the misinformation effect: A meta-analysis of post-warning studies

Four decades of research speak to the power of post-event misinformation to bias eyewitness accounts of events. A subset of this research has explored if this adverse influence of misinformation on remembering can be 'blocked' through a later warning about its presence. In a meta-analysis of 24 studies (including 149 effect sizes) such post-warnings turned out to be surprisingly effective reducing the misinformation effect to less than half of its size on average. We explore the effectiveness of different types of warnings (based on a theoretical classification) and discuss implications of

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warning findings for theoretical explanations of the misinformation effect.

Ian Watkins & Kristy Martire Liar Liar Neurons Fire: Do Individual Differences in Executive Functioning Predict Performance in a False Opinion Paradigm

While theories of deception posit cognitive mechanisms particularly higher-order executive functions as crucial for the production and successful execution of deceptive communication previous research examining this relationship uses differences in initial response times as measures of deceptive ability rather than using actual perceptions of veracity. The current research investigates how somewhat diverse executive functions (working memory updating cognitive set-switching and inhibition) contribute to one's ability to deceive others as well as one's overall credibility.

15:30 – 16:30

16th floor

Poster Session 2 + Drinks

For abstracts see SARMAC website

16:30 – 17:30

Auditorium

Jelte Wicherts: Fraud and Human Factors in (Psychological) Science

Jelte Wicherts (1976; PhD 2007, cum laude) is an associate professor at the Department of Methodology and Statistics of Tilburg University. He has published on

a wide range of topics including IQ, psychometrics, fraud, publication bias, errors with statistics, and data sharing in various peer-reviewed journals, such as Intelligence, Journal of Personality and Social Psychology, American Psychologist, Perspectives on Psychological Science, Psychological Methods, PLoS ONE, and Nature. He has received various grants and awards, including an Early Career Award from the American Psychological Association and VENI and VIDI grants from the Netherlands Organisation for Scientific Research (NWO).

