

Program

The 8th Biennial Meeting
of the Society for Applied
Research in Memory & Cognition.

SARMAC VIII Kyoto Heian Kaikan



July 26-30, 2009

Welcome to SARMAC VIII

*this is that place
of going away and coming back
of parting time and again
both friends and strangers
the Ausaka Barrier*

*kore ya kono
yuku mo kaeru mo
wakarete wa
shiru mo shiranu mo
Ausaka no Seki*

Semimaru, 9th century, *Hyakunin Isshu* ("One Hundred Poets, One Poem Each")

Welcome to Kyoto, and to the 8th SARMAC meeting. In this ancient city dotted with temples, shrines and gardens, we showcase the best of contemporary applied research in memory and cognition. It's a wide and varied program, sure to intrigue you.

To those of you who have never joined us before, SARMAC is known for its friendliness: we don't have an "inner circle" here. To our long-time SARMACsters, welcome back. And to those of you who haven't been back for a while, welcome home.

Maryanne Garry
*President, Governing Board
Society for Applied Research in Memory and Cognition*



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SARMAC Japan Registration Information

Registration fees:

Registration fees for presenters

(Each presenter can present only one paper/poster during the conference.)

Membership type	Early registration fee Before Feb 28, 2009	Late registration fee After Mar 1, 2009 On-site registration
SARMAC member	¥ 22,000	¥ 32,000
Non-member	¥ 32,000	¥ 42,000
Member of JPA or JSLP	¥ 27,000	¥ 37,000
Students Member	¥ 17,000	¥ 27,000
Non-member	¥ 20,000	¥ 30,000

On-site registration fees for One-Day attendants

General	¥ 15,000	Students	¥ 10,000
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Guideline for presenters

Symposia

Plenary Symposia: A plenary symposium includes a chair, four presenters, and one or two discussant(s). The total session time is 90 minutes and should allow for discussion among presenters and the audience. Each presenter will use 15 minutes, so will a discussant.

An LCD projector connected to a Windows PC, screen, and microphones will be available in Heian Hall on the first floor (ground level).

Regular Symposia: A regular symposium includes a convener/chair and five speakers, either five presenters or four presenters and a discussant. The total session time is 75 minutes.

So, each speaker will use 15 minutes each including a Q&A and inter-speaker interval.

Therefore, the genuine presentation time is about 12 minutes. An LCD projector connected to a Windows PC, screen, and a microphone will be available in each of six rooms on the 2nd and 3rd floors.

Speakers are recommended to bring 50 or more copies of handouts.

Regular Sessions

Regular Sessions: A regular session includes a chair and five speakers in a related research area. The total session time is 75 minutes. So, each speaker will use 15 minutes each including a Q&A and inter-speaker interval. Therefore, the genuine presentation time is about 12 minutes. An LCD projector connected to a Windows PC, screen, and a microphone will be available in each of six rooms on the 2nd and 3rd floors.

Speakers are recommended to bring 30 or more copies of handouts.

Poster Sessions

Poster Sessions are scheduled on the late morning and afternoon of Tuesday 28th. The morning session is from 11:00 to 13:00 at Higashiyama Hall on the second floor. Posters can be hung from 10:45. Presenters must be at the posters during the lunchtime, 12:00-13:00. The afternoon session is from 14:15 to 16:15 at Higashiyama Hall. Posters can be hung from 14:00. Presenters of the afternoon session must be at their posters during the long tea break, 15:30-16:15.

Authors of the posters will present their papers using a visual medium with key excerpts from the papers displayed on one side of a 90 cm wide x 180 high free-standing bulletin board. Please note that the board size is smaller than the usual one used in the other psychological conventions such as the APS. Because the width is limited, the posters will be displayed on every other board. The morning session posters are indexed with odd numbers and the afternoon session posters are with even numbers.

Poster presentations should incorporate illustrative materials such as tables, graphs, photographs, and large-print text, and materials should be clearly readable from a distance of about 1 m (3 feet). Presenters are advised to bring copies of their papers (30 copies or more recommended).

SARMAC Japan Sponsors

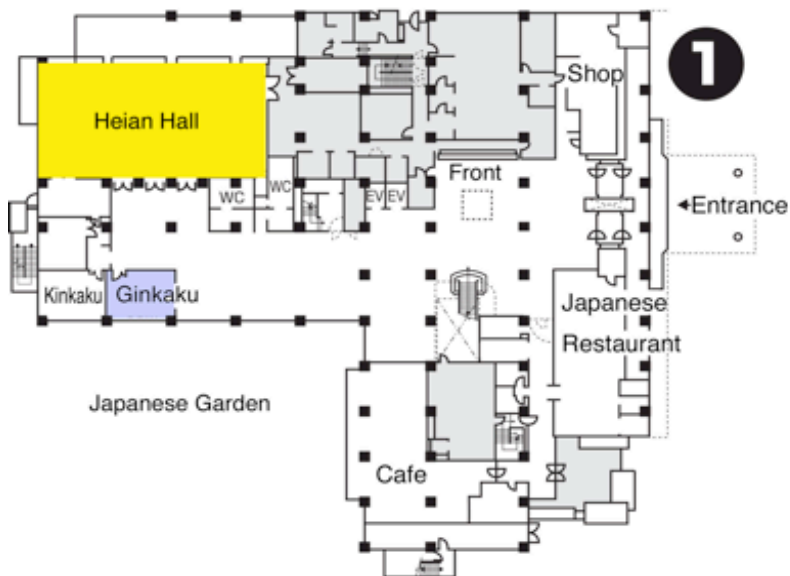
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SARMAC Japan Program

Timetable

Sunday July 26	9:00-16:00	Ginkaku	Board meeting
	16:00-17:00	Heian	Opening Ceremony
	17:00-18:00	Heian	Keynote speech: Paula Hertel
	18:00-20:00	Higashiyama	Reception Party
Monday July 27	9:00-10:30	Heian	Plenary symposium
	10:30-10:45	Lobby	Tea Break
	10:45-12:00		Concurrent Regular Sessions
	12:00-13:00		Lunch
	13:00-14:00	Heian	Keynote speech: Ryuta Kawashima
	14:15-15:30		Concurrent Regular Sessions
	15:30-15:45	Lobby	Tea Break
	15:45-17:00	Heian	Plenary Special
	17:15-18:15	Heian	Keynote speech: Cordelia Fine
18:30-19:30	Heian	Business Meeting	
Tuesday July 28	9:00-10:30	Heian	Plenary symposium
	10:30-10:45	Lobby	Tea Break
	10:45-12:00		Concurrent Regular Sessions
	12:00-13:00	Higashiyama	Lunch/ Poster Session
	13:00-14:00	Heian	Keynote speech: Tetsuro Matsuzawa
	14:15-15:30		Concurrent Regular Sessions
	15:30-16:15	Lobby/Higashiyama	Tea Break/ Poster Session
	16:15-17:15	Heian	Presidential Session: Geoffrey Loftus
	17:30-18:30	Heian	Keynote speech: Randall Engle
Wednesday July 29	9:00-10:30	Heian	Plenary symposium
	10:30-10:45	Lobby	Tea Break
	10:45-12:00		Concurrent Regular Sessions
	12:00-13:00		Lunch
	13:00-14:15		Concurrent Regular Sessions
	14:15-14:45	Lobby	Tea Break
	14:45-16:00		Concurrent Regular Sessions
	16:15-17:45	Heian	Plenary symposium
	18:00-20:00	Higashiyama	Closing Ceremony/ Farewell Dinner

Floor Plan



Plenary Sessions

Sunday 26, 17:00-18:00 **Heian Hall** **Keynote Speech**

Key-SunEv-0 **Holmes, Emily A.** **Chair**

Key-SunEv-1 **Hertel, Paula** Trinity University
Memory Distortions in Anxious and Depressed States

Interpretations of actual events influence the nature of what is remembered subsequently. This well known fact from early research on constructive memory has special significance when anxious or depressed people are the ones who are interpreting and remembering. Their memories typically show the effects of systematic interpretive biases, and these memory biases have clinical implications. I will discuss evidence from participants with diagnosed disorders and self-reported anxiety or dysphoria, as well as attempts to model these effects through Cognitive Bias Modification.



Monday 27, 09:00-10:30 **Heian Hall** **Plenary Symposium**
Recent Developments in Clinical Cognition

PS-MonAm-0 **Hertel, Paula** **Chair**

PS-MonAm-1 **Holmes, Emily A.** University of Oxford

Co authors: Deeprise, James, & Coode-Bates

Can we reduce the intrusions people develop of traumatic films by tasks given after they watch them?

Intrusions occur in PTSD and across psychological disorders. We know little about involuntary memory or its modulation. Recent Cognitive Behaviour Therapy models of PTSD are summarized, providing foundations for experimental predictions (Holmes & Bourne, 2008). Films with traumatic content are used as analogues for real trauma. Previous work examined peri-traumatic processing – i.e. during trauma encoding (Holmes, Brewin, & Hennessy, 2004). We have recently focused on “post-traumatic” processing, that is, manipulating cognitive processing in the aftermath of trauma. It appears that visuospatial tasks post-trauma (including a computer game – Tetris) may protect against later intrusions (flashback). We speculate on memory consolidation post-trauma.

PS-MonAm-2 **Polaschek, Devon** Victoria University of Wellington, New Zealand

Co authors: Bell, Calvert, & Takarangi

What Changes During Treatment? Comparing Aggressive Cognition and Behaviour in High-Risk Violent Prisoners Using Implicit and Explicit Measures

Offenders’ reports of their progress remain a major source of information about rehabilitative change, even though such information often appears inaccurate. But is inaccuracy caused by deliberately lying about their progress, as clinicians often suggest, or by the possibility of fundamentally different offending pathways that relate to effortful and automated processes, as espoused in social cognition research? This paper presents data from a sample of high-risk violent prisoners participating in an intensive rehabilitation programme at Rimutaka Prison, in New Zealand. Self-report questionnaire responses will be compared with implicit measures of aggressive cognition and behaviour, before and after programme completion.

PS-MonAm-3 **Harris, Celia** Macquarie University, Sydney, Australia

Co authors: Sharman, & Barnier

Mood and retrieval-induced forgetting of positive and negative autobiographical memories

In two experiments, we examined the effects of high and low levels of dysphoria on retrieval-induced

forgetting (RIF) of positive and negative autobiographical memories. In Experiment 1, participants took part in a RIF procedure that was adapted for autobiographical memories. Regardless of dysphoria, participants showed facilitation for both negative and positive memories; they only showed inhibition for negative memories. Differences in baseline memories were responsible for this effect: participants recalled more positive than negative baseline memories. Experiment 2 was conducted to remove these baseline differences, and also used only participants with high levels of dysphoria. Again, participants showed facilitation for both positive and negative memories; they only showed inhibition for negative memories. The content of practiced memories also influenced recall, as did individual differences in anxiety. Overall, these results suggest that memory biases and memory valence can influence RIF, and that practicing positive memories may assist mood repair.

PS-MonAm-4 **Moulds, Michelle** The University of New South Wales, Sydney, Australia
Co authors: Yap, Kerr, Kandris, & Williams

Metacognitive Beliefs Increase Vulnerability to Rumination Following a Stressful Event

Metacognitive beliefs about the benefits of rumination are associated with rumination and depression; however, the direction of these relationships remains unclear. Two experiments examined whether individuals with high positive beliefs about rumination engage in more rumination following a laboratory-based stressor than individuals with low levels of such beliefs. Participants with high levels of positive beliefs reported more rumination following a stressor (negative feedback) (Expt1). Participants with high levels of positive beliefs reported more rumination regardless of whether they received negative, positive or ambiguous feedback, compared to participants matched for degree of trait rumination with low beliefs (Expt2). Findings will be discussed in the context of rumination models.

PS-MonAm-5 **Read, Don** **Discussion**

Monday 27, 13:00-14:00 **Heian Hall** **Keynote Speech**

Key-MonPm-0 **Itsukushima, Yukio** **Chair**

Key-MonPm-1 **Kawashima, Ryuta** Tohoku University

Bridges between neuronimaging and society

We have been trying to create bridged between brain imaging research and society by Industry-University cooperative researches. All the products and systems relating to our daily life are perceived as stimuli by the senses, such as vision, hearing, touch, etc., and recognized as meaningful and connected to our actions or ideas. We believe we can evaluate the impact of the use of their products and systems on the human brain through scientific instrumentation centering on functional brain imaging and through psychological experiments, and study how to apply the findings to development of new products. By making our functional brain imaging technologies easily available to companies, we aim at creating a society in which companies are aware of the impact their products and systems have on the brain, and disclose information to consumers so that they can enhance the safety of their products and systems as well as increase their added value. We believe the scientific evaluation of such impact on the brain, particularly in the case of teaching or play materials and software for children, is indispensable, and we provide necessary information so that our proposed "human brain engineering" serves as a standard.



Monday 27, 16:00-17:15 **Heian Hall** **Plenary Special**
Recent Progress in Brain-Machine Interface Research

PS-MonPm-0 **Fiore, Steve** **Chair**

PS-MonPm-1 **Sakurai, Yoshio** Kyoto University

How can brain-computer interfaces reveal real dynamics of working brains?

In awake and working brains, it is still not clear how dynamic the neuronal activities underlying cognitive dynamics are. The main reason why is that physical limitations of bodies generating behaviors often restrict the freedom of the neuronal activity of the brains. Our research project is aimed at detecting the actual features of the dynamics and learning potentials of the working brains by constructing and applying a high-performance brain-computer interface (BCI). The present paper first introduces our methods of the BCI, which uses simple behavioral tasks for rats, long-term recording of multiple neuronal activities, a real-time spike-sorting apparatus with a combination of independent component analysis (ICA) and newly developed multi-electrodes. The strategy of the BCI experiment involves the use of the neuronal operant. We report preliminary data that indicate highly dynamical changes of the neuronal activity of the brains connected to the BCI. We finally discuss neuronal codes representing information and realizing cognitive dynamics in the working brain.

PS-MonPm-2 **Berka, Chris** Advanced Brain Monitoring

The New Interface of Brain, Mind and Machine: Neurotechnology Platform for Assessment of Cognition

The investigation and understanding of the human mind is being transformed by the convergence of ubiquitous computing, consumer electronics and advances in neurotechnology. Humans and machines are inextricably linked with cognition augmented by laptops and hand-helds with 24-hour internet access and global satellite positioning systems. The promise of expanding mental capacity and enhancing performance is driving cross-discipline teams of engineers, neuroscientists, cognitive psychologists and biophysicists to participate in this inevitable merging of man and machine. This presentation will review recent progress in developing systems for monitoring and analyzing the human electroencephalogram (EEG) and the prospects for integration with current and future technologies. Although the relationships between specific mental states and EEG are just beginning to be understood, the foundation of work in detecting global state changes is sufficient to begin developing practical applications. Neurocognitive profiling can now be accomplished by integrating EEG with cognitive tests to quantitatively assess alertness, attention, learning and memory. Educators are developing next generation EEG technology to build models of student learning using EEG for non-intrusive assessment of cognitive processes including attention, working memory, workload and problem solving. In summary, neurotechnology opens a window on human information process that is now accessible to investigations into cognition.

Monday 27, 17:30-18:30

Heian Hall

Keynote Speech

Key-MonEv-0

Hayne, Harlene

Chair

Key-MonEv-1

Fine, Cordelia

“The female brain is a high performance emotion machine!”

Issues in the interpretation and reporting of brain science, from scanner to soundbite.

The public are fascinated by neuroscientific research. However, neuroscience lends itself easily to over-interpretation and, perhaps because it seems to offer privileged insights into who we 'really' are, may be particularly effective in influencing public attitudes. Using discoveries of sex differences in the brain as an example, I show just how badly neuroscientific data can be mangled by popular writers, and discuss the growing evidence that these 'brain facts' can have tangible effects on public attitudes, behavior, and decisions. I conclude by asking, what are the responsibilities of the neuroscientist in the pathway from scanner to soundbite?



Tuesday 28, 09:00-10:30

Heian Hall

Plenary Symposium
Memory in, and Memory of, Childhood

PS-TueAm-0

Hayne, Harlene

Chair

PS-TueAm-1

Wang, Qi

Cornell University

Childhood Recollections Across Cultures

Cross-cultural studies have generated converging evidence that compared with their Asian counterparts, Westerners, both children and adults, are able to recall their earliest childhood memories from a younger age and are better at accessing childhood memories more generally. In this presentation I discuss research findings concerning the mechanisms underlying the cultural differences. I focus on a number of cognitive and social factors that may operate on encoding, post-encoding remembering, and retrieval processes and further affect the accessibility of childhood memories over the long term. Implications of the findings for general memory theories will be addressed.

PS-TueAm-2

Hayne, Harlene

Otago University

Constructing the Future, Remembering the past: The Emergence of Mental Time Travel During Human Development

Do you remember where you left your keys when you came home from the supermarket or what you need to do tomorrow at work? These kinds of memory tasks are universally familiar to us as adults; in order to function effectively in the world, we frequently reflect on events that have happened in the past and plan for events that we know will happen in the future. We accomplish this kind of mental time travel using a special kind of memory that Tulving referred to as episodic memory. In this presentation I will describe recent work from my laboratory using new experimental tasks to examine the emergence of retrospective and prospective episodic memory during early childhood. I will conclude that episodic memory emerges early, but continues to improve over a protracted period of development.

PS-TueAm-3

Howe, Mark

Lancaster University

Co authors: Courage

Individual Differences in the Emergence of Autobiographical Memory

Research on the development of autobiographical memory has addressed age changes in the factors that underlie its emergence, although age is not the only factor determining event recall. Key individual difference factors also affect the onset, durability, and content of autobiographical memory. To create a more comprehensive theory, we focus on individual and group differences in cognitive (e.g., self-concept, knowledge), biological (e.g., stress reactivity), emotional (e.g., attachment status), linguistic (e.g., narrative skill), social (e.g., parent-child interaction), and cultural (e.g., self vs. community focus) factors and show how they conjoin to influence the onset, recollection, and reporting of personally experienced events.

PS-TueAm-4

Morrison, Catriona M.

University of Leeds

Co authors: Conway

First Words & First Memories

We describe recent research in which younger and older adults report and date (age at encoding) the very earliest memory they are able to recall to word cues. The word cues were drawn from several different categories including objects, locations, activities, and emotions. Critically the average age of acquisition of the words in childhood was also known. It was found that earliest memories typically dated about 12 months later than the age of acquisition of the word cue to which they were recalled. This was the case for early and late acquired words, for words from all categories, and for both older and younger adults. The findings are discussed in terms the acquisition of words, concepts, and memories and the implications for childhood amnesia are considered.

PS-TueAm-5

Conway, Martin A.

Discussion

Tuesday 28, 13:00-14:00

Heian Hall

Keynote Speech

Key-TuePm-0

Mori, Kazuo

Chair

Key-TuePm-1

Matsuzawa, Tetsuro Primate Research Institute, Kyoto University

Trade-off theory of memory and symbolization in humans and chimpanzees

Three mother-offspring pairs learned the sequence of Arabic numerals from 1 to 9, using a touch-screen monitor connected to a computer. A memory task was then introduced at around the time when the young became 5 years old. In this test, after touching the first numeral, all other numerals were replaced by white squares. In general, the performance of the three young chimpanzees was better than that of the three mothers and human adults: Young chimpanzees were good at memorizing details at a glance. A symbolic matching task was then introduced at around the time when the young became 6 years old. In this test, the subjects learned to match a



Color (red, yellow, or green) to the corresponding two visual symbols (Kanji and Lexigram). All of the six possible combinations of Color, Kanji, and Lexigram were simultaneously introduced. The results showed that the establishment of the stimulus equivalence or the symmetry rule was difficult in chimpanzees. Our data can be interpreted according to a “trade-off hypothesis of memory and symbolization” from both developmental and evolutionary perspectives. Developmental trade-off would

mean that young individuals can perform better in immediate memory tasks but may not be as able at other cognitive tasks such as those involving symbolic relationships. Evolutionary trade-off suggests that the common ancestor of humans and chimpanzees may have possessed an extraordinary memory capability. At a certain point in evolution, because of limitations on brain capacity, the human brain may have acquired new functions of symbolization in parallel with losing immediate memory. See Inoue and Matsuzawa (2007) /*Current Biology*/ 17:R1004-R1005.



Tuesday 28, 16:15-17:15

Heian Hall

Presidential Special

PS-TuePm-0

Garry, Maryanne

Chair

PS-TuePm-1

Loftus, Geoffrey University of Washington

Eyewitness memory: Quantitative vs. Qualitative conclusions

Memory researchers are increasingly being asked to testify in court about the reliability of eyewitness memories, most typically of a criminal’s appearance. Reliability is determined by two broad sets of factors: perceptual factors relevant at the time of the original event and memory reconstruction factors relevant at varying times following the event. Examples of perceptual factors include (but



are no means limited to) witness attention, witness stress, witness sobriety, the duration the witness has to view the criminal, the illumination of the scene, and witness-criminal distance. Conclusions about effects of some of these factors can only be made qualitatively, e.g., “when there is a weapon in the scene, the witness is less likely to attend to and remember the criminal’s appearance.” Conclusions about other factors, however, such as effects of duration, illumination, and distance can be made, to varying degrees, quantitatively.

I will discuss the difference between these two kinds of factors, with examples of what an expert witness, testifying in court, can say about them. As a specific example I will focus on witness-criminal distance and show how an eyewitness expert can specifically illustrate the information loss in a witness's visual system that is associated with the witness having seen a perpetrator from any specific distance. I will show how this kind of information is currently being used by the New-York based Innocence Project to cast serious doubt on the guilt of two currently incarcerated individuals -- Darrell Edwards in New Jersey and Troy Davis in Georgia -- who were originally convicted on the basis of extremely dubious eyewitness testimony.

Tuesday 28, 17:30-18:30 Heian Hall Keynote Speech

Key-TueEv-0 Polaschek, Devon Chair

Key-TueEv-1 Engle, Randall Georgia Institute of Technology

Working memory capacity/Executive attention as both a state and a trait variable

Early conceptions of cognitive limitations were based on a limited number of items or chunks such as 7 ± 2 or 4 ± 1 . However, more recent thinking focuses on abiding individual differences in cognitive control and the role those differences play in other complex cognitive tasks. It is further clear that working memory capacity (WMC) should be thought of as a construct or variable that mediates between many other variables and a wide range of cognitive tasks in which control is required or useful. In the same way that personality psychologists think about anxiety as both a trait and state variable, we can think of working memory capacity as both a trait and state variable. Individual trait differences, probably due to genetic, brain, and neurotransmitter



influences, limits working memory capacity but other variables ranging from sleep deprivation to secondary cognitive load to stereotype threat and social pressure will lead to temporary reduction in capability for cognitive control in a wide array of real-world cognitive tasks.

**Wednesday 29, 9:00-10:30 Heian Hall Plenary Symposium
Developments in applied memory research: New techniques for extracting information from eyewitnesses**

PS-WedAm-0 Semmler, Carolyn Chair

PS-WedAm-1 Brewer, Neil Flinders University

Coauthors: Brewer, Weber, & Wootton

Eyewitness identification: An alternative approach to accessing eyewitness memory

The traditional eyewitness identification test often produces inaccurate decisions, with witnesses either failing to pick the culprit or picking the wrong person. Here we examine a new procedure designed to increase our capacity to reliably discriminate accurate from inaccurate identifications. Instead of a binary yes/no decision (positive identification or lineup rejection), the witness indicates how confident (s)he is that each lineup member is the culprit under a response time deadline that limits the influence of

metacognitive or social cues on these judgments. We apply classification algorithms that identify confidence criteria that optimally discriminate accurate from inaccurate decisions, and use a profile analysis that highlights precisely when an individual set of confidence judgments indicates an accurate discrimination of a previously seen face.

PS-WedAm-2 **Hope, Lorraine** University of Portsmouth

Coauthors: Gabbert, & Fisher

The Self-Administered Interview (SAI): Capturing eyewitness accounts at the scene of an incident

In direct response to the problem of obtaining high quality witness evidence quickly, efficiently, and with minimal police resources available, we have developed a recall tool called the Self-Administered Interview (SAI) to elicit high quality information from eyewitnesses in time-critical situations. Our results demonstrate that the SAI strengthens episodic memory such that forgetting is reduced, and witnesses are less susceptible to misleading post-event information. Most recent result indicate that SAI participants exhibit reminiscence in subsequent interviews suggesting that the SAI preserves episodic memory for what was seen, rather than simply preserving memory for previous reports. We will also discuss the merits of the SAI field trials currently underway in the U.K.

PS-WedAm-3 **Zajac, Rachel** University of Otago

Coauthors: Karageorge

Using 'wildcards' to improve the accuracy of children's eyewitness identifications: Scope and limitations

It is well documented that children are more likely than adults to make identifications from target-absent lineups. Mistakes like these can lead to the conviction of innocent people. Recently, we have shown that children's target-absent lineup performance can be improved when, instead of verbally rejecting the lineup, they have the option of pointing to a 'wildcard' – a photo of a silhouetted figure with a large question mark superimposed. Importantly, these improvements do not appear to come at the expense of target-present lineup accuracy. In this presentation we will describe our wildcard research to date, paying particular attention to the conditions under which the wildcard is, and is not, successful.

PS-WedAm-4 **Lindsay, Rod** Queen's University

Novel approaches to identifying criminals

Many innocent people are punished for crimes they do not commit often based on identification error. Over the past three decades researchers have tried to improve on identification procedures with mixed results. Novel lineup procedures have increasingly been designed and tested; e.g., sequential lineups; multiple-choice, large, sequential lineups; elimination lineups. Lately the pace of innovation seems to have slowed as we spend more time debating the merits of these alternatives than developing further options. The fact is, none of the novel approaches work well enough to dispel concern that identification accuracy will remain a major source of wrongful conviction.

PS-WedAm-5 **Brewer, Neil** **Discussion**

PS-WedAm-6 **Lindsay, Rod** **Discussion**

Plenary Symposium		
Wednesday 29, 16:15-17:45	Heian Hall	Psychological statement analysis: The methods and findings

PS-WedPm-0 **Kurosawa, Kaoru** **Chair**

PS-WedPm-1 **Hamada, Sumio** Nara Women's University

What could be made of massive 'contaminated' data?

Psychologists face a daunting challenge in the analysis of contested confessions and testimonies: how to make best use of available psychological methodology. Such statements are almost always made where

we have no access to examine the process to obtain them. Not only the only data available, they must be badly contaminated. Nonetheless, the analyses teach us how people tell a story. It is commonly assumed that people tell a story of an event out of their memory. But in fact, I argue, they try to tell the whole story, doing their best to incorporate all the information, including their memory.

PS-WedPm-2 Takagi, Kotaro Aoyama Gakuin University

False confession and multilayered structure of police interrogation

An audio recorded police interrogation was analyzed to explore the conversational structure of police interrogation as joint remembering, and its relations to confessions by intellectually disabled. The interviewee was a moderately intellectually disabled adult who was accused of murder. Four types of discrepancies were identified corresponding to their positions in the multilayered structure of police interrogation: compliance, misguidance, difficulties in memory talk, and failure in establishing joint reference to the past. To understand confessions by intellectually disabled people, it is necessary to pay attention to joint reference discrepancy in which the interviewee and interviewer are talking about different past events.

PS-WedPm-3 Itsukushima, Yukio Nihon University

An accusation of sexual molestation by young children

A seven-year old elementary school girl ‘recovered’ memory of sexual molestation in 2005. She said that she had been molested for three days by an after-school childcare teacher. When first remembered, the incident took place in September, but after intensive interviews by police and her parents, she moved it to January, three months before the accusation. Then, a female friend recalled another incident by the teacher, on the day local newspaper and television reported his arrest. I would like to discuss the effects of intensive interviews by authority and parents, media reporting, and family circumstances of the accusers on accusation.

PS-WedPm-4 Hara, Satoshi Surugadai University

Contested confession and testimony and the new criminal trial system

It is explained that a purpose of introducing new criminal trial system is to speed up court proceeding. Toward the goal, fact-finding sessions are scheduled, and decisions for evidence made at pretrial hearing, making them difficult to change. Researchers of contested confessions have developed a unique method of statement analysis. It calls for detailed examinations of seemingly trivial, but essentially important changes in the stream of statements. It needs all the materials collected in police investigation. I would like to discuss cases that might not be given sufficient opportunities to evaluate statements by defendants and eyewitnesses in the new system.

PS-WedPm-5 Bull, Ray Discussion

Regular Sessions

Monday 27, 10:45-12:00	Saga	Symposium Some things about confidence and eyewitness memory
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S-MonAm-1-0 Brewer, Neil Chair

S-MonAm-1-1 Sauer, James Flinders University

Coauthors: Brewer, Zweck, & Weber

The effects of varied retention interval on the confidence-accuracy relationship for eyewitness recognition memory: A field study

Research suggests that the relationship between eyewitness confidence and identification accuracy should

be most apparent when data are collected across conditions designed to produce variations in memory quality (e.g., across conditions with different retention intervals). Using 5 stimulus sets, this large-scale field study (N > 1000) found no difference in the CA relationship according to retention interval (immediate testing vs. three week delay). In line with previous research, CA calibration curves for choosers indicated a robust relationship while the non-choosers curves did not suggest a meaningful relationship.

S-MonAm-1-2 **Semmler, Carolyn** University of Adelaide

Coauthors: Ashenden

Testing a cognitive consistency account of the postidentification feedback effect

The distortion of eyewitness confidence by postidentification feedback represents a major challenge to the use of eyewitness evidence, yet there is no coherent theoretical explanation of the psychological processes governing distortion. We tested a cognitive consistency account of this phenomenon, manipulating pressure to choose or reject the lineup (via pre-lineup instructions) and postidentification feedback (confirming, disconfirming or no feedback) in a between-subjects factorial design (N = 538). Results support the consistency account with larger effects of confirming feedback on choosers' confidence when the opportunity to reject the lineup was highlighted. Nonchoosers showed greater distortion when they were told they were wrong and had been pressured to choose.

S-MonAm-1-3 **Nagesh, Ambika** Flinders University

Coauthors: Brewer, & Young

Interviewing child witnesses: Regulating output quantity and accuracy

Current forensic interview techniques are limited in that they maximize either quantity or accuracy of memory reports while trading-off the other. We tested the efficacy of a novel interview technique which elicits greater amounts of information from witnesses while attempting to diagnose the accuracy of their memory reports using confidence judgments. Children and adults produced fine and coarse grained answers, with accompanying confidence estimates, for all questions. Memory reports were first elicited 20 minutes after viewing the crime and again 3.5 months later. Quantity and accuracy of reports were contrasted with those from free-recall and the Self-Administered Interview.

S-MonAm-1-4 **Williamson, Paul** Flinders University

Coauthors: Dinning, Chadunow, Gabbert, & Hope

Confidence and response order effects on eyewitness conformity

People who engage in post-event discussion may change their recall of the event in line with the stated recollections of their co-witness (e.g., Gabbert et al., 2004; Mori, 2003). In such studies, witnesses view similar films/pictures that differ on some critical features, then discuss what they saw, before undertaking a recall task. One robust finding is a response order effect: the first co-witness to bring up a critical item is less susceptible to memory conformity (Gabbert, et al., 2006, 2007). One possible explanation relates to the greater confidence of the first speaker. In the present study, both confidence and response order were manipulated using a confederate. The confederate introduced each critical item, using different confidence cues with three different levels (high ["I was definitely ..."], neutral [no cues], low ["Um, I think ..."]). Response order was also manipulated between-subjects. High confidence produced greater levels of memory conformity than low confidence however the second speakers did not conform more nor did response order moderate the confidence effect. Findings are interpreted in the context of participant perceptions about the co-witness as well as source attributions. Furthermore the distinction between natural discussions and discussions involving confederates is detailed with an emphasis on the personal and situational characteristics underlying natural discussions.

S-MonAm-1-5 **Lindsay, Stephen** **Discussion**

Monday 27, 10:45-12:00

Kuretake

Symposium

Pathways to Intrusions: Dissociation, Memory Processing, and Posttraumatic Distress.

S-MonAm-2-0 **Huntjens, Rafaele** **Chair**

S-MonAm-2-1 **Dorahy, Martin** University of Canterbury, New Zealand

Coauthors: Lyttle, Mulhern, & Huntjens

The role of Dissociation in Conceptual and Perceptual Processing Chronic Posttraumatic Stress Disorder

This study examined the role of dissociation in perceptual processing of trauma-related material with a corresponding hypothesized lack of conceptual processing in PTSD. In participants with and without PTSD (N=50) an experimental study investigated perceptual and conceptual priming for trauma-related, general threat, and neutral words in "Troubles"-related trauma survivors in Northern Ireland. Evidence of enhanced perceptual priming in PTSD for trauma stimuli was found along with lack of conceptual priming for such stimuli. State dissociation made a significant contribution to predicting priming for trauma words. The findings show the importance of state dissociation in trauma-related processing and posttraumatic symptoms.

S-MonAm-2-2 **DePrince, Anne** University of Denver

Coauthors: Weinzierl, & Combs

Trauma Context and Dissociation: Examining Executive Function in School-aged Children

We examined trauma context (e.g., familial- versus non-familial traumas), dissociation, and executive function performance in an ethnically-diverse, community sample of children (ages 9-12; N=91) exposed to a range of traumas (e.g., maltreatment by caregiver, natural disaster). Exposure to familial-trauma was associated with more severe dissociation symptoms. Dissociation symptoms were inversely related to performance on executive function measures. Children exposed to familial-trauma showed specific deficits in executive functions, though not generalized neuropsychological deficits. Dissociation and familial trauma explained unique variance in executive function deficits after controlling for other relevant variables. Implications for understanding dissociation will be discussed.

S-MonAm-2-3 **Verwoerd, Johan** University of Groningen, the Netherlands

Coauthors: Wessel, & de Jong

Pre-stressor Interference Control and Intrusive Memories

In this talk, I will present the results of an analogue study, which explored whether a relatively poor pre-stressor ability to resist proactive interference in working memory might set people at risk for experiencing undesirable intrusive memories after being exposed to a stressful event. Non-selected participants (n = 85) completed a modified version of a widely used test of interference control in working memory (CVLT; Kramer & Delis, 1991) and subsequently watched an emotional film fragment. Following the presentation of the fragment intrusive memories were recorded in an one-week diary and at a follow up session 7 days later.

S-MonAm-2-4 **Hattori, Yosuke** Nagoya University

Coauthors: Kawaguchi

The cause of high-frequent intrusive thoughts in depressed individuals

Previous studies indicate that depressed individuals show a high-frequency of intrusive thoughts because they do not use an appropriate strategy of thought suppression. However, this result could reflect 2-functional dimensions of self-regulation, assessment and locomotion (Kruglanski et al., 2000). Therefore the reason why depressed individuals do not use the strategy has not yet been clarified. In order to examine this problem, we modified the instruction to eliminate the influence of assessment stage, and compared the number of intrusive thoughts during thought suppression in depressed and non-depressed participants. Results suggested that both impairments of assessment and locomotion caused the non-use of the strategy in depressed individuals.

S-MonAm-2-5 **Huntjens, Rafaele** **Discussion**

Monday 27, 10:45-12:00	Miyabi	Symposium
S-MonAm-3-0	Verschuere, Bruno & Meijer, Ewout	New Approaches to Deception Detection.
		Chairs

S-MonAm-3-1 **Matsuda, Izumi** National Research Institute of Police Science

Coauthors: Nittono, Hirota, Ogawa, & Takasawa

Cognitive processes in the autonomic-based concealed information test: an event-related potential approach

The concealed information test (CIT) has been widely used in Japanese criminal investigations to detect examinees' memories about crime by means of autonomic responses. To elucidate cognitive processes related to the autonomic responses, we recorded event-related potentials to memorized and non-memorized items under the standard autonomic-based CIT. As compared to non-memorized items, memorized items elicited larger N2b and positive slow wave. The results suggest that at least two cognitive processes are involved in the autonomic-based CIT: the first is an attentional process that facilitates the processing of memorized items, and the second is an additional process after identifying memorized items.

S-MonAm-3-2 **Verschuere, Bruno** Ghent University

On using the aIAT in lie detection: Validity and the effect of faking

The aIAT was recently introduced in as a fast and promising lie detection tool (Sartori et al., 2008). The initial report found 91% accuracy in determining which of two autobiographical events was true. We investigated whether participants can strategically alter their performance on the aIAT. Experiment 1 showed that participants guilty of a mock theft were able to obtain an innocent test outcome. Two additional experiments showed that guilty participants can fake the aIAT without prior experience with the aIAT, and when a response deadline was imposed. The aIAT is subject to the same shortcomings as other lie detection tests.

S-MonAm-3-3 **Meijer, Ewout** Maastricht University

Extracting information from organized criminal groups

A typical Concealed Information Test (CIT) serves to determine the presence or absence of guilty knowledge in a single suspect. We investigated another potential application of the CIT, namely whether it could be used to extract information from a group of suspects. Participants were appointed to a mock terrorist network and were supplied with information about an upcoming terrorist attack. Next, they were subjected to a CIT. The results show that the CIT could successfully be used to extract this information from the network as a whole. As such, this application of the CIT might help prevent terrorist attacks.

S-MonAm-3-4 **Abe, Nobuhito** Tohoku University Graduate School of Medicine

The role of prefrontal cortex in deception: Evidence from functional neuroimaging

Deception has long attracted the attention of psychologists, particularly in terms of "lie detection" based on physiological indices and subtle behavioral cues. In recent years, much attention has been paid to clarifying the neural mechanisms underlying deception. In this talk, I will present functional neuroimaging data showing that prefrontal cortex plays an important role in deception. I will also present data showing that the neural activity measured by fMRI can differentiate between true memory, false memory, and deception. Together with previous studies involving lie detection, these findings indicate that prefrontal cortex can be regarded as a reliable indicator of deception.

S-MonAm-3-5 **Vrij, Aldert** **Discussion**

Monday 27, 10:45-12:00

Zuihou

Symposium
Cognitive Aging, Safety, and Quality of Life

S-MonAm-4-0

Harada, Etsuko T.

Chair

S-MonAm-4-1

Gondo, Yasuyuki

Osaka University

Coauthors: Renge, Kurokawa, Ishioka, & Ueno

Searching for sources of aging paradox in prospective memory

Recently, positive aspects of cognitive function in elderly people are attracting interest among aging researchers. Better performance of older adults on prospective memory (PM) tasks in a daily setting is a representative example. The current research focuses on protective factors that have the potential to maintain good performance in a PM task, including; individual differences in socio-demographic (education, occupation), personality (conscientiousness, social desirability) and current life style (busyness, fitness activity), also, mental and physical health, meta-memory and use of stratagem to avoid PM failure. A questionnaire was used to obtain information about the above mentioned variables and self-perceived PM as well as retrospective memory ability for 1500 community dwelling elderly people and for 500 university students. We will report the relationship among these variables for each age-group.

S-MonAm-4-2

Kusumi, Takashi

Kyoto University

Coauthors: Matsuda, & Sugimori

The effect of aging on nostalgia in consumer's Ad processing

In two questionnaire surveys, we investigated the triggers and functions of nostalgia in relation to aging, memory and emotion. Study 1 explored the contents and triggers of nostalgic experiences by requesting 451 undergraduates to do seven different descriptions (of scenes, songs, events, and commercials, etc.). An analysis of the descriptions using text mining revealed that nostalgia occurs in response to events that had frequent repetition in the past and a long time lag. Study 2 explored the functions of nostalgia among 737 consumers (15-65 years of age) by using a survey method. Structural equation modeling revealed five steps of nostalgic Ad processing. Highly nostalgic consumers are more sensitive to nostalgic triggers. Nostalgic triggers facilitate the retrieval of past events and memorization of Ads evoking familiarity and positive attitude, which in turn, facilitates intention to purchase. Nostalgic predisposition and sensitivity to nostalgic triggers increased with age. This tendency was higher among men than among women.

S-MonAm-4-3

Ishimatsu, Kazuma

Japan National Institute of Occupational Safety and Health

Coauthors: Miura, & Shinohara

Driving safety and useful field of view in older adults

It is known that useful field of view (UFOV) is one of the most significant predictors of crash involvement in older drivers. Older drivers, however, seem to have abilities to anticipate hazardous events and prevent them based on their considerable driving experience. The present study investigated age-related characteristics of attention allocation (UFOV) based on anticipation of target events. Younger and older participants performed a peripheral target identification task with or without central letter identification. Comparisons of reaction time and accuracy in the peripheral task revealed that identification performance and false alarm to unexpected events in older adults deteriorated under the high demand situation.

S-MonAm-4-4

Hara, Yuuki

Hitachi, Ltd., Design Division

Coauthors: Motomiya

Cognitive Aging and rich user interface: Usability Problems of Ajax based on the empirical study of older adults

Ajax is an effective new technology to enhance web usability. In order for users to take advantages of Ajax, it is necessary to present Ajax in a usable way. In this study, three experiments were conducted using usability testing methods. We identified several usability problems of Ajax websites for older adults and created some possible design solutions for three problems related to the essential features of rich

internet applications like Ajax, then tested these solutions to demonstrate the effectiveness of three design strategies applied to them. The implications of our findings will be discussed.

S-MonAm-4-5 Harada, Etsuko T. Hosei University

Coauthors: Mori

Cognitive aging and usability of IT-based equipments: Learning is the key.

Based on results of usability-testing for varieties of IT-based equipments, we have identified five problematic characteristics in interactions between older adults and equipments, and have proposed a model of 3 layered resources for these phenomena (Harada & Akatsu, 2003). In pursuing solutions to each problem, it appears that the key is a deficit or shortage of some kinds of learning, which are half-abstracted mental models, and emergently subtracted from error-full trials by younger adults. Hypotheses relating to why older adults are less efficient at these types of learning, and suggestions for cognitive supports to make IT easier to learn for older adults, will be presented.

Monday 27, 10:45-12:00	Aoi	Regular Session
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R-MonAm-5-0	Kawaguchi, Jun	Chair
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R-MonAm-5-1 Vanags, Thea University of Canberra

Coauthors: Carroll

About face! Reversing the direction of the processing shift in a verbal overshadowing paradigm

The underlying premise of the transfer-inappropriate processing shift (TIPS) hypothesis is that an intervening activity produces a shift from appropriate (holistic) to inappropriate processing (featural). An untested extension of TIPS is that producing a shift from featural to holistic processing should produce similar results. In this experiment participants encoded a face featurally, completed a Navon (local or global) or a control task, and then viewed a sequential lineup. Local Navon participants outperformed control participants and global participants, reversing Macrae and Lewis' (2002) results. Results are discussed with regard to TIPS and featural processing of unfamiliar faces.

R-MonAm-5-2 Itoh, Yuji Keio University

Coauthors: Sasaki, Hisamatsu, Tachi, Chin, & Schooler

Verbal overshadowing effect in nonverbal memory: Influence of attentional tendency while encoding of the target

We examined if manipulating participants' tendency to focus on global versus local aspects of nonverbal materials would influence the degree to which describing a target impaired its subsequent recognition. Participants engaged in a task involving Navon figures to manipulate their attentional tendency. Then they studied a photo of clouds or a fingerprint. After describing the target or engaging in an unrelated task, a recognition test was given. Although verbalization impaired cloud recognition and the attention manipulations affected performance on some measures, there was no interaction between verbalization and global/local focus. The relationship among global-local, nonverbal-verbal, and configural-featural dimensions is discussed.

R-MonAm-5-3 Kidoguchi, Hideki Kyoto University

Coauthors: Saito

Long-term learning of phonological forms with/without overt articulatory rehearsal of Japanese nonwords

We examined the role of phonological working memory in long-term phonological learning by looking at recall and recognition of a set of three-mora Japanese nonwords. Forty-two students participated in an experiment that manipulated the frequency of bi-mora units within the nonwords and the amount of overt articulatory rehearsal. The results showed better recall and recognition performance for nonwords containing high-frequency bi-mora. Furthermore, better recognition performance was observed for memory items as the number of articulatory rehearsal increased. The findings suggest that both

knowledge of phonotactics and repetitions in working memory contribute to long-term learning of phonological forms.

R-MonAm-5-4 **Saunders, Jo** Swansea University

Retrieval-induced forgetting in the weapon focus effect

Previous research has suggested that central details in weapon-present scenarios are more resistant to misinformation than peripheral details. The success of introducing misinformation about central items may, however, depend on the source of misinformation. Previous research has indicated that questioning leads to more misinformation effects than narratives. The current experiment examined the effect of questioning and narratives in their ability to mislead participants. Questioning was found to lead to more misinformation effects about central items than post-event narratives, while more misinformation effects were found for weapon-central items than nonweapon-central items. The results are discussed in terms of retrieval-induced forgetting.

R-MonAm-5-5 **Thomas, Ayanna K.** Tufts University

Coauthors: Chan, & Bulevich

Repeated Testing in the Face of New Learning: Misleading Post-Event Information Demonstrates the Limitations of the Testing Effect

Upon witnessing a crime, the eyewitness immediately reports the event. That first act of retrieval should have positive consequences for later retention. However recent research has shown that immediate testing increases susceptibility to misleading post-event information. Immediate testing draws attention only to details in the post-event narrative that were indicated in the test. If that information was consistent with the event a boost in final retention was demonstrated. If that information was inconsistent, a boost in misinformation acceptance was demonstrated. Warning manipulations and calibration between recall and confidence are used to support an accessibility framework of repeated-testing misinformation.

Monday 27, 10:45-12:00	Hagoromo	Symposium Children's True and Fabricated Reports
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S-MonAm-6-0 **Talwar, Victoria** **Chair**

S-MonAm-6-1 **Bussey, Kay** Macquarie University

What do Children Know and Think about Fabrications and False Denials?

In legal contexts there is concern about children fabricating criminal allegations. This vignette-based study involving 160 children (3, 5, 7, and 11 years) investigated whether children's identification and moral evaluation of lies differed for false denials (denying transgressions that occurred) and false allegations (fabricating transgressions that did not occur). The 3- and 5-year-olds were better able to identify false allegations than false denials. Older children showed high levels of identification of both lie types. As children aged they judged false denials more acceptable than false allegations. The cognitive underpinnings of this developmental sequence and implications for children's testimony are discussed.

S-MonAm-6-2 **Saykaly, Christinie** McGill University

Coauthors: Talwar, Lindsay, Lee, & Bala

Children's Accuracy over Multiple Reports

Sixty-three children, between the ages of 4 and 10 (Mean age =7.18) participated in a project where they played a game with a research assistant (RA), which included a scripted touching component, over three consecutive days. One week later, RA2 would interview the children, asking the child to recount the game, in detail, as well as report on the physical appearance of the first RA. The accuracy of the reports are analyzed to determine how accurate the participants are, what kind of details were omitted or forgotten, and what type of details were commonly reported incorrectly.

S-MonAm-6-3 **Talwar, Victoria** McGill University

Coauthors: Saykaly, Lindsay, Lee, & Bala

Children’s Ability to Maintain Coached Fabricated Reports over Repeated Interviews

Few studies have examined children’s coached true and fabricated reports or their abilities to maintain their reports repeatedly over interviews. This study focused on children’s coached truthful and fabricated reports of a repeated event (interaction with a researcher that involved a touching game) over repeated interviews. Parents coached children to give truthful and fabricated reports. Results revealed differences in children’s fabricated reports over multiple interviews. Children had more speech errors, spontaneous and unusual details in their fabricated reports. Children’s false reports were harder to distinguish from their true reports over repeated interviews. Implications for child witness interviewing are discussed.

S-MonAm-6-4 Williams, Shanna McGill University

Coauthors: Talwar, Lindsay, & Lee

How do you tell a lie? A linguistic analysis of children’s deceptive statements

Children’s linguistic markers for both truthful and deceptive statements were analyzed in the present study. Children’s mock courtroom testimony and children’s stressful stories was analyzed using Linguistic Inquiry and Word Count (Mean age = 5.6, SD = 1.1). Researchers have examined the differences in adults’ language when describing either a true or fabricated event (Newman, Pennebaker, Berry, & Richards, 2003; Bond & Lee, 2005). Contrary to research on adult’s statements, children’s deceptive statements have been less rigorously studied. Results indicate a significant difference in children’s use of self-reference, other reference and use of exclusive wording for truthful and deceptive statements.

S-MonAm-6-5 Lindsay, Rod Queen's University

Coauthors: Talwar, Bala, & Lee

Detecting Children’s Lies: Does Stress Improve Detection?

Research demonstrates that adults can not detect children’s lies based on “yes” and “no” answers to direct questions about their own transgressions nor narrative stories about innocuous events (Talwar, Lee, Bala, & Lindsay, 2006). We asked children to tell true or fabricated stories. Each child was recorded telling four stories in a 2 X 2 design (true-fabricated X stressful-innocuous). Although lies were discriminated at a significantly (but only slightly) better than chance level (62%), there was no significant main effect nor interaction of stress on the ability to detect children’s lies.

Monday 27, 14:15-15:45	Saga	Symposium The MORI Technique for Applied Research in Social Interactions
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S-MonPm-1-0 Mori, Kazuo Chair

S-MonPm-1-1 Mori, Kazuo Tokyo University of Agriculture and Technology

The MORI Techniques: Introduction and Review

The MORI Technique is used to present different participants with different versions of an image or movie on the same screen at the same time, without the viewers realizing they each see something different. I will briefly introduce the MORI Technique and its variations. Eyewitness researchers can create discrepancies between participants who think they witness the same event together but actually observe two different scenes. I review published literature on eyewitness memory using the MORI Technique. Then, I introduce a new variation, the fMORI Technique which is suitable for presenting two different static visual stimuli with just one video projector.

S-MonPm-1-2 French, Lauren Y. Victoria University of Wellington

Coauthors: Gerrie, Garry, & Mori

Experimental Evidence of the Efficacy of the MORI Technique for Eyewitness Research

The MORI technique leads people to report seeing details that they did not see, details that another person

simply described to them. But is this effect merely a methodological flaw masquerading as a memory distortion? We conducted two experiments to investigate whether people could notice or remember anything about the alternate movie version when they watched a movie via the MORI technique. The results showed that people did not notice or remember the alternate movie. Instead, we found evidence that the MORI technique is a sound tool that allows researchers to create and examine unique social situations.

S-MonPm-1-3 **Uchida, Akitoshi** Shinonoi Nishi Junior High School

Coauthors: Mori

Promotion of Self-efficacy of Different Achievement Levels of Junior High School Students using the fMORI Technique

Seventh graders of three levels of academic achievement (1st-25th, 26th-50th, and 51st-75th percentiles) were given easier anagram tasks while their classmates were given more difficult ones by means of the fMORI Technique. As expected, the target students given easier tasks performed significantly better than their classmates who served as the control group. Their successful performance and subsequent social approval in class significantly promoted their self-efficacy for the anagram tasks regardless of their academic achievement level. However, the elevated self-efficacy persisted differently among the three target groups. Only the 1st-25th and 51st-75th percentile groups retained their high self-efficacy.

S-MonPm-1-4 **Hanayama, Aiko** Scientific Investigation Laboratory of Aomori Prefectural Police

Coauthors: Arai, Ito, & Mori

Gender Difference in the Development of Conformity: Replication of the Confederate-free Asch Conformity Experiment with Three Age Levels

Mori & Arai (2007) used the fMORI technique to replicate Asch's experiments without confederates. They presented groups of four people with lines of different lengths; three members made up the majority - they all saw the same length line; the remaining member was the minority, and saw a different length line. The results showed that female minorities conformed about 30% of their responses but male minorities did not. We recruited first and seventh graders to participate in the same paradigm. First-grade boys conformed as frequently as first-grade girls but 7th grade boys conformed much less than 7th grade girls.

S-MonPm-1-5 **Fujisawa, Takashi X.** Kwansai Gakuin University

Coauthors: Hosokawa, Nagata, & Katayose

An fNIRS study of Brain Activity of Minority Participants under Social Pressure using the fMORI-Asch Paradigm

The functional near-infrared spectroscopy (fNIRS) is a non-invasive neuro-imaging method for investigating brain activity. It requires participants only to wear headgear with several small optodes, so it can be used on freely moving participants. In this study, the brain activity of minority participants in the fMORI-Asch paradigm was measured using a multi-channel NIRS system. Nine optodes were placed over the prefrontal cortex of each hemisphere to measure the temporal changes in the concentrations of oxy-hemoglobin and deoxy-hemoglobin. We found that the left frontal pole was activated when participants experienced social pressure from the group situation.

Monday 27, 14:15-15:45	Kuretake	Regular Session
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R-MonPm-2-0	Saito, Hirofumi	Chair
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R-MonPm-2-1	Iida, Saea	Nagoya University
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Coauthors: Ohira

Inhibition of unpleasant emotions by cognitive tasks

In this study, we investigated inhibition of unpleasant emotions by enhancing executive function with cognitive tasks. Three cognitive tasks, nback task, go-nogo task, WCST were examined prior to

emotional task. As results, compared with control group, the cognitive task groups inhibited physiological responses during the emotional task, and subjective report after emotional task. And the effect of differences of the cognitive tasks didn't show any significant difference. From these results, cognitive task can be used to regulate our unpleasant emotion. We thought that engaging in cognitive task enhanced our executive function, and enabled us to inhibit following unpleasant emotion more easily.

R-MonPm-2-2 **Kemps, Eva** Flinders University, Adelaide, Australia

Coauthors: Tiggemann, & Parnell

Food cravings selectively disrupt visuo-spatial task performance

Based on converging evidence for the visual imagery nature of food cravings, this study tested the prediction that such cravings selectively disrupt performance of cognitive tasks that load on the visuo-spatial sketch pad component of working memory. In support, experimentally-induced chocolate cravings impaired performance on the Corsi blocks task, but not on the digit span or double span tasks, designed to assess the phonological loop and central executive, respectively. The findings reflect the mutual competition between food cravings and visuo-spatial tasks for limited visuo-spatial working memory resources. Implications for food craving theory and everyday visuo-spatial functioning will be discussed.

R-MonPm-2-3 **Hung, Lynette** University of New South Wales

Coauthors: Hill, & Bryant

A Hypnotic Paradigm for Investigating Intrusive Memories

Intrusive memories are common to many clinical disorders. This experiment investigated a hypnotic paradigm for eliciting autobiographical memory intrusions. Before hypnosis, high hypnotisable participants nominated a distressing memory. During hypnosis, they received a suggestion to intentionally or unintentionally recall the memory following a retrieval cue. After hypnosis, participants received the retrieval cue while they completed a cognitive task. Findings suggested that participants who unintentionally recalled the memory experienced intrusions as more involuntary and distressing. They also demonstrated greater cognitive interference after the retrieval cue. Findings are discussed in terms of the utility of a hypnotic paradigm for eliciting memory intrusions.

R-MonPm-2-4 **de Gracia, Veronica Caban** John Jay College of Criminal Justice

Coauthors: Cohen

Methadone adherence among ethnically diverse inner-city chronic users: individual differences in management of affect, psychopathy & cross-cultural stress

Despite early aspirations for an ubiquitous model of drug-abuse treatment adherence, there seems to be a growing appreciation of individual differences in the path to recovery. The current study, conducted in a large methadone clinic in New York City, examines the relationship between various aspects of treatment adherence over the course of a year and individual or cultural differences in managing affect & behavior. The resulting path model is compared to other models of adherence designed to help case managers & mental health workers individualize treatment on empirical grounds

R-MonPm-2-5 **Nakai, Yasushi** Kawasaki College of Allied Health Professions

Prosodic features of individuals with autism in conversation using cepstrum analysis

Individuals with autism exhibit significant impairments in prosody production, yet there is a paucity of research for prosody production based on digital evaluation. This paper describes digital evaluation of prosodic features of a person with autism in conversation, using cepstrum analysis that is a signal processing technique used in a speech processing area. In this paper, a view from the experiment result on how a person with autism produces prosody is discussed.

Monday 27, 14:15-15:45	Miyabi	Regular Session
R-MonPm-3-0	Nitto, Hiroshi	Chair

R-MonPm-3-1 **Reinitz, Mark T.** University of Puget Sound

Coauthors: Peria, & Loftus

People are overconfident in their recognition responses when they are based in memory for details rather than familiarity.

Participants saw naturalistic pictures for varying exposure durations and received a recognition test containing old and new pictures; for each “old”/“new” response they gave a confidence rating and indicated whether their response was based on familiarity or memory for a visual feature. A state-trace analysis showed that for all accuracy levels confidence was lower for familiarity-based than for feature-based responses. This implies that for any confidence level a familiarity-based response was more likely than a feature based response to be accurate. Witness confidence should be especially discounted when recognition responses are based in memories for details rather than familiarity.

R-MonPm-3-2 **Mizutani, Mitsuyoshi** Forensic Science Laboratory of Hyogo Prefectural Police

Coauthors: Nakayama

Heart rate variability during a concealed information test (CIT) in field and experiment

This study investigated the validity of heart rate (HR) variability during CIT with 120 subjects of three groups; field-deceptive (FD), field-innocent (FI) and experiment-deceptive (ED). As a result, tonic HR was the highest in FD, the next in FI and the lowest in ED. But a deceptive subject could not be distinguished from the innocent ones by the tonic HR because of large individual diversity. Phasic HR decreased by 2bpm or 3bpm to critical item than to non-critical one despite field or experiment. The decrease of HR to the critical item has validity as an index for the CIT.

R-MonPm-3-3 **Osugi, Akemi** Forensic Science Laboratory of Hyogo Prefectural Police

Coauthors: Mizutani, & Ohira

Effects of emotional arousal and motivation on the Concealed Information Test (CIT) using Event Related Potential (ERP) and Normalized Pulse Volume (NPV)

This study investigated the effects of emotional arousal and motivation on the Concealed Information Test (CIT). Participants stabbed a picture of a baby doll in a high emotional mock crime and a picture of fruits in low emotional mock crime, with one of five alternative edged tools. The CIT contained pictures of edged tools used in each task, and used these as probes. Half of the participants were instructed to conceal information with effort. Regardless of this instruction, participants elicited larger P300 to highly emotional probes than to low emotional probes, and these were larger than to irrelevant stimuli. NPV changed by probe presentation and was influenced by the instruction.

R-MonPm-3-4 **Khan, Azizuddin** Indian Institute of Technology Bombay, India

An Investigation into Prospective Memory: Converging evidence from experimental and questionnaire study

A questionnaire and experimental studies were conducted on 182 adult participants to investigate the role of metamemory and task condition (event and time-based task) in prospective and retrospective memory (paradigm). A 2×2×2 within factorial design and 2X2 mixed factorial designs were employed. All the main effects were significant. Some interactions were also found to be significant. Further, prospective as well as retrospective memory were found to increase with metamemory as revealed by significant correlation coefficient (r) between metamemory and prospective memory as also that between metamemory and retrospective memory. Results also revealed that time-based task is more error prone in realization of intention as compared to event-based task.

R-MonPm-3-5 **Rendell, Peter G.** Australian Catholic University

Coauthors: Henry, & De la Piedad Garcia

The new computerized Virtual Week: A reliable and valid measure of prospective memory

More than half of everyday memory failures are prospective memory (PM) failures. However, reliable

and validated measures of PM have been lacking. Rendell and Craik's (2000) Virtual Week (VW) measure of PM has good psychometric properties and is sensitive to the effects of normal and abnormal adult ageing, and various forms of pathology. VW simulates daily life in a board game, in which participants move around the board with the roll of a dice. The new computerized version of VW, tested in different populations and countries, will be presented and the literature using VW in various populations will be discussed.

Monday 27, 14:15-15:45	Zuihou	Regular Session
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R-MonPm-4-0	Inoue, Tomoyoshi	Chair
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R-MonPm-4-1	Buttle, Heather	Massey University, New Zealand
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Coauthors: Cheung

Mere exposure effects for different styles of internet advertising

Internet advertising success tends to be measured by click-through rate and/or by explicit measures, but not implicit measures (Shen, 2000). However, effects that hinder explicit recall measures often do not affect implicit measures (Jacoby & Dallas, 1981). It was the aim of this study to examine recognition and mere exposure effects for different styles of internet ad. Twenty participants viewed articles on a computer screen with banner/pop-up ads present. Explicit recognition tests indicated that both pop-up and banner ads were recalled at similar levels (61% and 62% respectively). Likewise, mere exposure effects were found for both types of ad.

R-MonPm-4-2	Tabata, Naoya	University of Tsukuba
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Cues for inferring secrets of other people during social interactions

Cues for inferring secrets of other people during social interactions were investigated. Undergraduates (n = 141) were asked to complete questions about the cues they use for inferring secrets of other people during everyday social interactions. Results indicated that evasion of a topic, silent pauses, and gaze aversion were the most common cues to secrets. Furthermore, participants with highly suspicious attitudes towards others relied significantly more on cues, such as evasion of a topic and gaze aversion, and significantly less on smiling, compared to those with less suspicious attitudes towards others.

R-MonPm-4-3	Matsumoto, Eriko	Kobe University
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A visual search examination of attentional biases to emotional facial expressions among individuals with high and low social anxiety

In this study, participants were asked to search for a discrepant facial expression among other homogeneous faces to investigate whether or not non-clinical anxiety affects emotional search efficacy. Search slopes (ms / item) were calculated for each participant, and simple regression analysis was carried out, using search slope values and State-Trait Anxiety Inventory (STAI) scores. We also recorded RR intervals. The results showed evidence of an anger superiority effect, indicated by a significant correlation between the performance during the anger face search task and the trait anxiety scores ($p < 0.05$). Thus, it might be that more anxious people exhibit an advantage towards detecting angry looking faces.

R-MonPm-4-4	Koh, Jessie Bee Kim	Cornell University
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Coauthors: Wang

Cultural Affordances on the Meaning-Construction of Modesty

Meaning-construction of modesty as afforded by different cultures was examined. A word association task was used to tap the conception of modesty in Caucasian Americans and English- and Chinese-speaking Singaporean Chinese college students (N=150). Modesty was construed as a character trait in all groups. However, Caucasian Americans tended to construe it as personal qualities, whereas English-speaking Singaporean Chinese tended to construe it as interpersonal qualities. Further, Caucasian Americans tended to construe modesty as a self-presentation strategy for self-serving purposes, whereas Singaporean Chinese tended to construe it as a moral virtue for self-improvement and as entailing

social-relational consequences. Implications are discussed.

R-MonPm-4-5 **Berntsen, Dorthe** Aarhus University

Coauthors: Bohn

Cultural life scripts guide mental time travel into the past and future

Mental time travel (MTT) is the ability to mentally project oneself backwards and forward in time to subjectively re-live past or pre-live future events. We examine how MTT is guided by cultural life scripts (CLS) – i.e., culturally shared expectations about the order and timing of life events in a prototypical life course. Undergraduates generated autobiographical memories and future event representations in response to cue words and requests for important events. For both future and past MTT, temporally distant events showed more overlap with CLS than temporally close events, and the overlap was larger for important than for word cued events.

Monday 27, 14:15-15:45	Aoi	Regular Session
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R-MonPm-5-0	Imai, Hisato	Chair
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R-MonPm-5-1 **Avcı, Gunes** Rice University

Aging & Task-Switching: Exploring the Costs of Switching between Mental Domains

Coauthors: Logan

Task-switching is associated with a switch cost (e.g. slower reaction time). The present study compared performance of older and younger people at task-switching in a word-generation paradigm in which subjects generated words from one category, then switched to another category. In experiment 1, we found that additional preparation time did not eliminate or reduce the switch cost for younger adults. However, it reduced the switch cost for older adults. In experiment 2, we found external cue eliminated switch costs in both age groups. Older adults particularly benefited from cue-presentation more than did younger adults.

R-MonPm-5-2 **Uttil, Bob** Mount Royal College

Coauthors: Kisinger

Analyses of Accident Records: What Is The Meaning of Missing Values?

Accident records are frequently used to learn about conditions and victim behavior before, during, and after accidents. However, accident records are frequently plagued by missing information, leading to uncertainty about the prevalence of conditions and behavior surrounding the accidents. Over 200 participants were shown video clips of car accidents, asked to recall as much information as they could, and then to fill out a standard checklist of conditions surrounding the accident. The results show that eyewitnesses are much more likely to recall information believed to be causally-related (e.g., icy road) than non-causally related information (e.g., dry road).

R-MonPm-5-3 **Komatsu, Sahoko** Kyushu University

Coauthors: Hakoda

Disappearance of the interference between facial expression and identity in face recognition with elimination of surface information.

We examined the effects of surface information on the interference between the two dimensions of facial recognition: expression and identity of faces. Sixteen participants judged either the expression or the identity of faces while the other dimension was either held constant or varied. We presented negative photos of faces in order to remove surface information from the faces, such as shading, texture, and pigmentation. The experimental results revealed no interference between the two dimensions when the surface information was removed by negative conversion. These results suggest that the interference observed in previous studies was caused by the surface information.

R-MonPm-5-4 **Komori, Masashi** Osaka Electro-Communication University

Coauthors: Kawamura, & Ishihara

Determinants of Perceived Masculinity and Femininity

Facial features that determine the perceived masculinity/femininity were investigated using a generalized Procrustes method and principal component analysis (PCA). Participants (n =114) evaluated masculinity of 48 male faces and femininity of 48 female faces. Eighty feature points were visually measured on each of the facial photographs. Through generalized Procrustes method, each facial shape was converted into multi dimensional values. PCA was performed on the multi dimensional values except for sexually dimorphic dimension. Although each principal component is independent from sexual dimorphism, several PCs correlated with both perceived masculinity and femininity. Proofreading by a native speaker is appreciated.

R-MonPm-5-5 **Zaragoza, Maria** Kent State University

Coauthors: Chrobak

False Eyewitness Memories for Forcibly Fabricated Events: The Role of Causal Explanations

In a recent study (Chrobak & Zaragoza, in press), witnesses who were forced to fabricate entire fictitious events eventually developed false memories of having witnessed these fabricated events. We hypothesized that these participants were prone to developing false memories because the events they were forced to fabricate provided a causal explanation for events they had witnessed. In support of this hypothesis, we report the results of several experiments which test the prediction that false memory following forced fabrication will vary as a function of the fabricated events' role in the causal sequence of observed events.

Monday 27, 14:15-15:45	Hagoromo	Regular Session
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R-MonPm-6-0	Kurosawa, Kaoru	Chair
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R-MonPm-6-1 **Dando, Coral** Lancaster University, UK

Coauthors: Wilcock, & Milne

The effect of interviewer initiated modifications to the Cognitive Interview on witness memorial performance.

The Cognitive Interview superiority effect is well demonstrated. However, it requires considerable cognitive effort on the part of the interviewer. Further, in the absence of electronic assistance, there is the additional cognitive burden of producing a written record of each interview. To reduce cognitive load and expedite the statement taking process, change temporal order is frequently rejected and witnesses are often instructed to recount events chronologically. How do such modifications affect witness performance? We investigate the impact of these interviewer adjustments, and discuss the implications of our findings and how they contribute to the literature.

R-MonPm-6-2 **Uemiya, Ai** Kobe College

Coauthors: Matuda, Naka, & Koyama

A comparative study of abused and non-abused children's levels of understanding of truths and lies

An important factor in assessing a child's ability to testify within a forensic setting is their level of understanding of 'lies and truth'. Previous research suggests that abused children tend to be behind of non-abused children in cognitive and linguistic development (Hoffman-Plotkin & Twentyman, 1984). In this study we compared non-abused children and children who had experienced child abuse, in their understanding of lies and the action of telling a lie.

R-MonPm-6-3 **Mori, Naohisa** Sapporo Gakuin University

A new approach to examine confession and testimony credibility

A new approach to examine the credibility of confession and testimony is proposed. It overcomes the following four difficulties in the traditional approach to memory: 1) it is not always possible to access veridical memories about an originally experienced event; 2) the veracity of an experience should be

found out in communication between a rememberer and a recipient; 3) veracity cannot be evaluated on the basis of the contents of remembering; 4) the veracity should be examined case by case. One practical and one experimental study are presented to show the validity of this approach.

R-MonPm-6-4 Ormerod, Thomas C. Lancaster University, UK

Goal-directed deduction: How experts differ in the inferences they draw

Three experiments explored investigative inferences. Experts and novices generated inferences for statements like “If a car theft is genuine, then the claimant will return both sets of keys. In one instance, a claimant returned one set. Why might this have arisen?” Fraud investigators were less likely than novices to draw logically valid inferences that created suspicions of guilt, whereas police officers were more likely to do so. Call handlers drew valid inferences that created suspicions of hoaxes for evidence calls but avoided them for emergencies. The results suggest a gap in theories of human reasoning - the role of goal-directedness.

R-MonPm-6-5 Polage, Danielle C. Central Washington University

Are you a Fabrication Deflator or Inflater?

The current study attempts to discover individual differences between participants who come to believe the lies they tell versus the majority of participants for whom lying reinforces the truth. This adds to my previous work, Polage (2004) (presented at SARMAC in 2005), which found that when participants were asked to convince an interviewer that inexperienced events had actually happened to them, the likelihood ratings given to the lied about events were significantly higher than for the control events. In addition, 14% of participants rated the lies as “true” after lying about them compared to 0% of the controls.

Tuesday 28, 10:45-12:00	Saga	Symposium Improving the accuracy of visual and eyewitness evidence
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S-TueAm-1-0 Pike, Graham Chair

S-TueAm-1-1 Gawrylowicz, Julie University of Abertay, Dundee, UK

Coauthors: Carson, Gabbert, & Lindsay

The construction of facial composites by people with mild learning disabilities

Individuals with a mild learning disability often have limited verbal abilities, which might act as a barrier towards them providing reliable evidence when describing a perpetrator’s face. To investigate this, we compared the quality of facial composites constructed by participants with, and without, a mild learning disability. Participants either provided a facial description of a target face verbally, or with the use of visual prompts. Composites were constructed on the basis of the facial descriptions, and were subsequently evaluated by an independent sample of participants using a matching task. The forensic implications of the findings will be discussed.

S-TueAm-1-2 Gerrie, Matthew P. Victoria University of Wellington

Coauthors: Huthwaite

The role of eye movements in eyewitness identification

When witnesses use a process of elimination, instead of relying on their memory for the offender, there is an increased likelihood of misidentification. This process of elimination is often referred to as a relative judgment. We present data from two experiments showing that eye movement patterns can serve as a proxy measure of relative judgment behavior. We measured subjects’ eye movements while they examined faces, and later identified those faces from lineups. We found that eye movements provided an innovative measure witnesses’ relative judgment behavior and that eye movement patterns were related to witnesses’ accuracy when choosing from lineups.

S-TueAm-1-3 Ness, Hayley Open University, UK

Coauthors: Prior, Bromby, Graham, & Hogan

Does repeatedly viewing footage lead to the acquisition of special knowledge?

One of the Attorney General's References (UK; 2 of 2002) indicates that repeatedly viewing visual evidence might lead to increased accuracy of facial identification. Experiment one examined this and adopted a 2 (type of image) by 2 (quality; good, degraded) by 3 (time; 30, 60, 90 seconds) independent-samples design. A significant effect of repeated exposure was observed for stills, but not for good or degraded quality videos. A second experiment examined encoding specificity by using moving faces in the recognition stage. A third experiment asked participants to view footage until they felt that they had become familiar with the person.

S-TueAm-1-4 **Pike, Graham** Open University, UK

Coauthors: Brace, Briggs, & Turner

Comparing types of sequential lineups

Although it might be expected that the UK requirement that sequential video parades are seen at least twice by each witness would negate the advantage of a sequential presentation, two studies of the UK system have found that it does not increase the rate of false-positives. This could be because the witness can only ever see one face at a time and is further prevented from making a relative judgment as there can be a considerable interval between successive faces. This suggestion is examined in the present study by manipulating the duration for which each image is displayed.

S-TueAm-1-5 **Sobo, Yuki** Nihon University

Coauthors: Itsukushima

The effect of warning to source monitoring decisions for an eyewitness memory of the pickpocket

This study investigated that how warning about misinformation affects the source monitoring decision for the memory of the original event that depicting a pickpocket. The participants watched a series of slides that depicted a simulated pickpocket. After the slide presentation they were given information about the slides but a half of them received some inconsistent information about the events. Furthermore, half of the participants in each consistent and inconsistent condition received warning that they will receive misinformation about the events. The result showed that the misinformation effect appeared even when it was warned that wrong information exists before misinformation was presented.

Tuesday 28, 10:45-12:00	Kuretake	Symposium Experimental findings in Clinical Cognition: Intrusive trauma memories
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S-TueAm-2-0 **Woud, Marcella L.** **Chair**

S-TueAm-2-1 **Bourne, Corin** University of Oxford, UK

Coauthors: Mackay, & Holmes

Neuroimaging the Trauma Film Paradigm

Highly affect-laden memory intrusions are a feature of several psychological disorders, especially post-traumatic stress disorder (PTSD). The Trauma Film paradigm provides a prospective experimental tool for investigating analogue peri-traumatic cognitive mechanisms underlying intrusion development. This study combined the trauma film paradigm with functional Magnetic Resonance Imaging techniques to investigate the neural correlates of memory encoding for events that subsequently prove to be intrusive.

S-TueAm-2-2 **Reinecke, Andrea** University of Oxford

Coauthors: Krans, de Jong, & Becker

The direct effect of analogue trauma on attention and encoding

Cognitive models of PTSD assume that during a traumatic event, information processing shifts towards a more perceptual level, whereas verbal conceptual processing is impaired. Up to now, few studies have directly investigated this assumption. Results from a study that addresses this question explicitly by using

an attentional blink task are presented. A group of participants who has received analogue trauma will be compared to a control group. It is of specific interest whether the analogue trauma group differs from the control group in the processing of traumatic vs. neutral pictures that were part of the analogue trauma.

S-TueAm-2-3 **Woud, Marcella L.** Radboud University Nijmegen

Coauthors: Mackintosh, Becker, Rinck, & Holmes

The manipulation of trauma symptoms following an analogue trauma event

Maladaptive cognitions are crucial in Post Traumatic Stress Disorders (PTSD). This study aimed to manipulate potential maladaptive cognitions using Cognitive Bias Modification (CBM) techniques, intending to alter trauma symptoms following an analogue trauma experience (watching distressing movies). Participants completed negative or positive training after experiencing distressing films. Subsequently, they completed a 7-day diary recording quantity and quality of their film related intrusions. To investigate if CBM also altered potential dysfunctional trauma associations, i.e. automatic avoidance tendencies towards distressing pictorial stimuli, the Approach-Avoidance-Task (AAT) was administered. This presentation will provide an overview of the preliminary results.

S-TueAm-2-4 **Krans, Julie** Radboud University Nijmegen

Coauthors: Näring, Becker, & Holmes

Intrusive trauma memory: But what the hell is it for?

The question raised in the title may seem somewhat counterintuitive. But while intrusive trauma memories can undoubtedly cause impairment, we argue that they may exist for a potentially adaptive reason. Theory and experimental research on intrusion development suggest that these functions include aiding emotional processing, preventing future harm, and protecting the coherence of the self. The issue of intrusive images in other disorders than posttraumatic stress disorder is briefly addressed. This review suggests that the study of function is important for a nuanced view on the modulation of intrusive trauma memory in both experimental psychopathology and clinical treatment.

S-TueAm-2-5 **Moulds, Michelle** **Discussion**

Tuesday 28, 10:45-12:00	Miyabi	Symposium Contributions from research in memory, language, and cognition to investigative interviewing
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S-TueAm-3-0 **Vrij, Aldert** **Chair**

S-TueAm-3-1 **Powell, Martine** Deakin University

Coauthors: Feltis, Powell, Snow, & Hughes-Scholes

Effects of various questions in eliciting stories in child abuse interviews

We compared the effects of open-ended versus specific questions, and various types of open-ended questions, in eliciting story-grammar detail in child abuse interviews (N=34) with witnesses aged 5 to 15 years. Irrespective of witness age group, phase of interview or the measure of effectiveness, open-ended elicited more story grammar detail than specific questions. However, those open-ended questions that encouraged a broad response or further elaboration on a part of the offence elicited more story grammar detail than questions which requested clarification of concepts or description of the next activity or detail within a sequence.

S-TueAm-3-2 **Memon, Amina** University of Aberdeen

Coauthors: Memon, Zaragoza, Clifford, & Kidd

The effects of Cognitive Interview timing on memory

This research examines if an established interviewing protocol, the Cognitive Interview (CI), can counteract misinformation effects. Following an event, witnesses were interviewed with a non-leading CI or a free recall (FR) either before or after the forced fabrication phase. A week later participants

completed a recognition and source test. Forced fabrication led to higher rates of false assents to the fabricated items as compared to yoked control items. A CI before manipulation reduced false assents to both fabricated items and yoked control (new items). The benefits of an early interview using CI techniques in protecting against memory loss and misinformation effects are discussed.

S-TueAm-3-3 **Naka, Makiko** Hokkaido University

A developmental study with children in normal environment and those under stress

Nursery to elementary school children in normal environment and those from a child protection center who were separated from their family were shown ten vignettes and were asked about the feelings of protagonists as well as the feelings of their own toward the protagonists. Results showed children had more difficulty when talking about their own feelings than describing others', and had more vocabulary for negative feelings than for positive feelings which difference increased over time. Older children but not young children from the center showed less vocabulary for negative feelings. Implications for child interview will be discussed.

S-TueAm-3-4 **Bull, Ray** University of Leicester

Coauthors: Dando

Cognitive load on liars: Effects of interviewer disclosure of evidence

The cognitive load imposed on liars in studies of detecting deception has typically been low (save for Mann, Vrij, & Bull, 2004). This could be why detection rates have been close to chance levels. A new complex study will be described in which various amounts of cognitive load (hypothesized to affect language production) were imposed upon liars in 20-minute interviews (about their memory of wrong-doing) that involved either (i) early, or (ii) late, or (iii) gradual revelation by the interviewer about what she already knew of the relevant activities of the interviewees.

S-TueAm-3-5 **Kemp, Richard** **Discussion**

Tuesday 28, 10:45-12:00	Zuihou	Symposium
S-TueAm-4-0	Hirst, William	Social Aspects of Individual and Collective Memory
		Chair

S-TueAm-4-1 **Sutton, John** Macquarie University

Coauthors: Barnier, Harris, & Mete

Mechanisms of Transactive Memory in Organizations and Small Groups

Social influences on individual remembering are not inevitably malign, just as (more generally) constructive processes are not intrinsically distorting. A rich enough conception of the functions of memory can incorporate a more nuanced picture of the relational roles of remembering. We survey attempts by cognitive and organizational psychologists to implement and measure Wegner's theory of transactive memory, with a particular focus on different mechanisms of distribution of memories across group members, especially on more integrative rather than differentiated systems. We report studies of the processes of mnemonic coordination and interaction among small groups, and in a large, established community organization.

S-TueAm-4-2 **Harris, Celia** Macquarie University

Coauthors: Barnier, Sutton, & Keil

Collaborative remembering

Remembering is often a social activity; something that we do with and for other people. Perhaps surprisingly, previous research has shown that people remembering together recall less than their potential; that is, collaborative groups experience collaborative inhibition. In a series of studies, both experimental and more qualitative, we examined the effects of collaboration on memory in a variety of situations and focused on whether the nature of the group and the relationship between group members, or

the nature of the material being remembered influenced outcomes of collaboration. We discuss our results in terms of a functional view of collaborative remembering.

S-TueAm-4-3 **Echterhoff, Gerald** Jacobs University Bremen

Audience-Tuning Effects on Speakers' Own Memory: The Creation of Shared Reality

People's memory can be influenced not only by messages from others (e.g., co-witnesses' postevent suggestions), but also by their own communication with an audience. For instance, after tuning messages to an audience's attitude, speakers' memories of the topic often reflect the audience-congruent view expressed in their messages— an assimilation contributing to the convergence of individual memories. According to a recent theoretical account, such audience-tuning effects occur to the extent that speakers create a shared reality with their audience. I describe conditions for the creation of shared reality and supportive evidence. Relations between shared reality and adjacent concepts are discussed.

S-TueAm-4-4 **Koppel, Jonathan** New School for Social Research

Coauthors: Sky, & Hirst

Differential Effects of Expertise on Socially-Shared Retrieval-Induced Forgetting and Social Contagion

Social contagion (the transmission of false memories from a speaker to a listener) and socially-shared retrieval-induced forgetting (SS-RIF; induced forgetting, in a listener, for information related to that rehearsed by a speaker) represent two reliable mechanisms through which speakers shape the memories of their interlocutors. The present research explored, in a series of two experiments, whether each effect varies as a function of perceived expertise of the speaker for the source material. In both cases, the results demonstrate that perceived expertise has contrasting effects on social contagion and SS-RIF: it leads to increased contagion, and decreased SS-RIF.

S-TueAm-4-5 **Stone, Charles B.** Macquarie University and New School for Social Research

Coauthors: Barnier, Sutton, & Hirst

Forgetting each other's past: Socially-shared retrieval-induced forgetting for autobiographical memories

Researchers have established that selective retrieval can induce forgetting for unmentioned, but related memories. This effect has been extended to social settings under the rubric of Socially-Shared Retrieval-Induced Forgetting (SS-RIF). Work on SS-RIF has involved memories of experimenter-contrived material. Extending this work to autobiographical memories (AMs), we followed the standard SS-RIF procedure, but used AMs. In two experiments we demonstrated SS-RIF for both speakers and listeners when presented with their own or other's AMs, regardless of valence. These effects were found equally for strangers (Experiment 1) and intimate partners (Experiment 2). The role of SS-RIF in autobiographical and collective memory research is discussed.

Tuesday 28, 10:45-12:00	Aoi	Regular Session
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R-TueAm-5-0 **Kusumi, Takashi** **Chair**

R-TueAm-5-1 **Reppa, Irene** Swansea University

Retrieval competition in memory for objects

Successful retrieval from memory relies on inhibiting items associated with a target memory leading to retrieval-induced forgetting (RIF; Anderson, Bjork, & Bjork, 1994). The current study examined the properties most likely to elicit RIF. RIF was examined for object shape (Exp. 1 and 3) and object colour (Exp. 2 and 4). Item typicality was manipulated within-participants, and retrieval cue at final test (same versus different from study) was manipulated between-participants. RIF was observed across experiments and was larger for non-typical properties. The findings are discussed in the context of theories of object recognition, and inhibitory accounts for RIF.

R-TueAm-5-2 **Sherman, Sue M.** Keele University

False memories for brand names: the effect of font type and delay

The Deese-Roediger-McDermott (DRM) paradigm (Deese, 1959; Roediger & McDermott, 1995) was used to investigate false memories for brand names. Participants studied plain or brand font lists of brand names (e.g., Lloyds TSB, HSBC, Barclays, Halifax) before completing a free recall or a recognition memory task, either on the same day or a week later. Related but non-presented brand names (e.g., NatWest) were falsely remembered. Correct recall fell over time whilst false memory rose. Furthermore, more items were recognized over time and there were more ‘Remember’ responses to previously non-presented items. Implications for theory and advertising are considered.

R-TueAm-5-3 **Read, Don** Simon Fraser University

Coauthors: Boydell

Effects of Training Bias and Feedback on the Recollection of Verbal Cues to Deception

Criminal investigators make use of speech characteristics to assess interviewee credibility. Subsequently, an assessment may be justified by recalling the frequencies of specific verbal features in taped narratives, features often interpreted as signs of deceit (e.g., hesitations, pitch and volume changes). Our results showed that detection and recollection of such speech characteristics were influenced by the types of training bias and feedback about the accuracy of the mock interrogator’s assessment. The research may be distinguished from other post-feedback research in which it was participants’ recollections of their internal states, not the actual stimuli that were influenced by feedback.

R-TueAm-5-4 **Kurita, Tokika** Kyoto University

Coauthors: Kusumi

Measuring implicit attitudes towards people with disabilities using the FUMIE test

We assessed implicit attitudes towards people with disabilities by administering a group performance paper-and-pencil implicit association test (FUMIE test, Mori, et al. 2008) to 103 Japanese undergraduates. In addition, internal and external motivations to respond without prejudice were measured using the scales developed by Plant and Devine (1998). The FUMIE test revealed a negative association towards disabled people among Japanese undergraduates. Participants with higher internal motivation to respond without prejudices exhibited less negative attitudes towards disabled people for internal as well as external prejudices. However, higher external motivation to regulate prejudices reduced the effect.

R-TueAm-5-5 **Suto, Noboru** Chiba University

Time-based distance effect in the cognitive map learned through the ground-level of view

We investigated time-based distance effect on prior judgment of a pair of locations in a cognitive map. A sequence of slides representing street scenes from the ground-level of view was presented during 200ms(FAST), or 600ms(SLOW) per slide. Subjects learned them through selecting direction next to go at each intersection included in the sequence. After completion of learning, subjects saw a pair of intersections and were asked to decide which one was prior on the learned sequence. Results of SLOW showed that reaction time decreased with increasing the time-based distance between two intersections. Experiment 2 did not indicate any time-based distance effect when we randomly changed the order of sequences.

Tuesday 28, 10:45-12:00	Hagoromo	Symposium Cognitive and metacognitive factors in false memory formation
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S-TueAm-6-0 **Scoboria, Alan** **Chair**

S-TueAm-6-1 **Hessen, Joanna K.** University of Windsor

Coauthors: Scoboria

The devil is in the details: Photograph content influences false memory formation

This study extends previous research by exploring the effects of constraining and self-relevant details in false photographs upon false memory formation. Seventy-six participants viewed photographs, one of which depicted an alleged childhood balloon ride with a parent. In half of these photographs, the child and parent were clearly visible (self-relevant detail). In half of the photographs, a prominent but not unusual detail was presented (a lighthouse; constraining detail). Participants rated their memory for each photograph, and made subjective ratings of the quality of their memories. Individuals who received self-relevant information without associated constraining information provided the highest memory ratings, and endorsed memory characteristics consistent with autobiographical remembering (i.e., greater visual imagery, event coherence, and emotional content).

S-TueAm-6-2 **Otgaar, Henry** University of Maastricht

Coauthors: Candel, Smeets, Giesbrecht, Meijer, & Merckelbach

Erasing children’s memories: A reaction time analysis of omission errors due to suggestive information

The current study examined reaction times of children’s memory omissions due to suggestive information. One hundred-twenty 8-year-olds were instructed to take off three pieces of clothing of a puppet. Then, they were provided with suggestive false evidence that they only removed two items. In three interviews, children had to state which pieces of clothing they removed. Moreover, at the second interview, children were instructed to perform a computer task in which different pieces of clothing were presented. Children had to indicate which items they removed or did not remove. The number of children that failed to report the critical piece of clothing significantly declined over time. Results also showed that reaction times did not significantly differ between children’s responses.

S-TueAm-6-3 **Wysman, Lauren** University of Windsor

Coauthors: Scoboria

“Did my mom really tell you this happened to me?!” The effects of motivation and uncertainty on false-memory formation

This study examined the hypothesis that under certain conditions, individuals uncertain that an unremembered childhood event occurred, when sufficiently motivated, would produce fewer but more comprehensive false memories than individuals who were more certain that the event must have occurred. Participants were presented with six fictitious events that were allegedly provided by parents, and were asked to elaborate on them under moderate or high accuracy incentive conditions. Half of participants were told that all events were provided by their parents, while the remainder were told that just some of the events were actually received from their parents. Results indicated that despite general skepticism about the events, informing participants their parent had provided the events produced increased beliefs in the occurrence of events.

S-TueAm-6-4 **Shapero, Dana** University of Windsor

Coauthors: Scoboria

Disentangling how imagination impacts the creation of false memories

This study examined aspects of the imagination inflation procedure. This study attempted to disentangle the components of the imagination inflation procedure to determine the individual and additive effects of exposure (none, description, visualization) and the provision of prevalence information on plausibility, autobiographical belief, and memory ratings thought for unremembered past events. This research was designed to determine whether description of events or rehearsal of imagery for events resulted in changes in judgments. Effects of prevalence information upon plausibility and belief ratings were replicated. The implications of the quality of self-generated descriptions upon changes in plausibility and belief ratings are discussed.

S-TueAm-6-5 **Nabeta, Tomohiro** Kyoto University

Coauthors: Yamada, Omoto, & Chujo

False memory occurs as an episodic memory: Context-dependent effect of false recognition in DRM procedure

This study investigated the effect of background context on false recognition. Sixty participants learned 12 lists of 15 words associated with a critical lure not presented during the learning phase. The words were presented in the context of several backgrounds. In the recognition test, the background context of the test words was the same or different context to be learned. Accordingly, false recognition of critical lure in the same context was greater than in the different context, suggesting that participants formed episodic memory trace by integrating critical lure into the background context of the learning list.

Symposium		
Tuesday 28, 14:15-15:45	Saga	Facing eyewitness identification problems: Perceiving and remembering faces
S-TuePm-1-0	Brace, Nicola	Chair

S-TuePm-1-1 **Hilliar, Kirin** University of New South Wales, Australia

Coauthors: Kemp, & Denson

“At the pub, they ALL look the same to me”: Elimination of the own-race bias through alcohol intoxication

Generally, people are better at recognizing same-race faces than different-race faces (the own-race bias, or ORB), and alcohol intoxication impairs face recognition. Seventy-one Asian and 68 European participants, each randomly allocated to the Alcohol ($n = 71$, mean BAC = .05%) or Placebo condition ($n = 68$, BAC = 0%), were tested on their recognition accuracy for Asian and European faces. While an ORB was observed in the Placebo condition, it was eliminated in the Alcohol condition. When intoxicated, recognition accuracy for same-race faces dropped to that observed for different-race faces. The implications for theory and practice are discussed.

S-TuePm-1-2 **Blank, Hartmut** University of Portsmouth

Coauthors: Turner, & Punni

Likeability as a source of bias in eyewitness identification

Over the last decades, different sources of identification bias have been identified (e.g. line-up instructions, line-up composition, line-up presentation etc.). This study adds another bias to the list. Inspired by cognitive balance theory (Heider, 1946, 1958), we predicted that the more (less) likeable witnesses find a line-up member, the less (more) likely would they be to identify them as the perpetrator. We tested this idea using a staged bicycle theft and a target-absent line-up. Different analyses (t-tests and correlations) within and across participants converged to confirm our prediction.

S-TuePm-1-3 **Turner, Jim** Open University, UK

Coauthors: Briggs, Pike, & Brace

Can composite construction contaminate witness memory?

Previous research has suggested that exposing a witness to a ‘misleading’ facial composite can affect identification accuracy. In practice it is the process of constructing a facial composite that may have the most effect on witness memory. In the present study, participants were asked to construct a facial composite but were actually presented with a pre-prepared sequence showing a ‘misleading’ composite being constructed. Participants were then shown either an immediate or delayed target-absent identification task, containing a foil similar to the misleading composite. The results of this study are discussed in terms of the malleability and durability of witness memory.

S-TuePm-1-4 **Brace, Nicola** Open University, UK

Coauthors: Pike, Turner, & Briggs

Change blindness during an identification parade

Sequential line-ups may reduce false-positive identifications because a relative judgment requires the witness to compare the image in view to their memory of previously seen images. However, UK guidelines require that video parades based on a sequential presentation must be shown to each witness at least twice, raising the question of whether witness memory is sufficiently accurate to enable relative judgments to be made between presentations of the parade. This question was investigated in the present study by using a change blindness paradigm in which some of the foils were changed between the first and second presentation of the parade.

S-TuePm-1-5 **Hine, Kyoko** Keio University

Coauthors: Itoh

Influence of global and local information on confidence of face recognition

The current study was designed to explore the influence of a retention interval on participants' performance and confidence judgments in a face recognition task, focusing on global and local information processing. When there was a one-day delay between the learning and the recognition test phase, the confidence ratings for the false ("old") responses were higher than those for the correct ("new") responses. Global information was necessary to correctly reject conjunction faces of which features were familiar. Therefore, confidence ratings for correct responses may have decreased in the delayed group due to the participants being less able to use global information effectively.

Tuesday 28, 14:15-15:45	Kuretake	Symposium The Application of Memory Biases and Distortions to Experimental Psychopathology
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S-TuePm-2-0 **Cox, Rochelle E.** **Chair**

S-TuePm-2-1 **Etches, Richard B.** University of Leeds, United Kingdom

Coauthors: McMillan, & Moulin

Memory and obsessive-compulsive disorder: Support for a metacognitive model

Cognitive models of OCD implicate metacognitive processes, suggesting sufferers are prone to focusing on doubts. To date however there is very little empirical support for this. We report a task in which participants were given multiple choice general knowledge questions. In the first phase of the task participants only answered questions they were certain of. They were then forced to answer all questions again, without the option to pass. The OCD group correctly answered a much higher proportion of questions they had elected to pass earlier; suggesting they were withholding answers and demonstrating overly cautious metacognition.

S-TuePm-2-2 **Grisham, Jessica R.** University of New South Wales, Australia

Coauthors: Flower, & Moulds

The use of reappraisal and rumination during the recall of a sad event

Previous studies have found that ruminating about negative events maintains sad mood relative to distraction. A complementary line of research in the area of emotion regulation suggests that reappraisal is an adaptive strategy for responding to negative material. In the present study, participants recalled a recent sad event and were instructed to either reappraise or ruminate. The impact of these strategies was examined using emotion ratings across time. Compared to rumination, reappraisal led to more positive and less negative emotion. These findings suggest that the way in which one thinks about negative material shapes the emotional response.

S-TuePm-2-3 **Malik, Aiysha** University of Oxford, United Kingdom

Coauthors: Moulds, & Holmes

Modifying appraisals of intrusive memories

A new cognitive bias modification (CBM) technique has been shown to manipulate appraisals about experimentally induced depressive intrusions (Lang et al., 2008). Maladaptive appraisals contribute to the

maintenance of distressing intrusions in depression. We will discuss a study where this CBM technique was applied to *naturally occurring* autobiographical intrusions, in the context of depression. Participants received either positive or neutral CBM for intrusion appraisals and we assessed the influence of CBM on intrusion appraisals, intrusion frequency, cognitive avoidance and mood. Our findings will be discussed.

S-TuePm-2-4 **Cox, Rochelle E.** Macquarie University, Australia

Coauthors: Barnier

Using hypnosis to create a laboratory analogue of clinical confabulation

The aim of this study was to develop a hypnotic analogue of clinical confabulations. We gave high hypnotisable individuals a hypnotic suggestion to experience amnesia for selected events and then manipulated their awareness about the source of their forgetting and whether they should fill gaps in their memory. Following the suggestion we indexed participants' likelihood of confabulating personal semantic and personal episodic memories and after hypnosis we asked them to identify the source of their memories. We discuss the findings in terms of the features of clinical versus hypnotic confabulations, and the value of using hypnosis to model such conditions.

S-TuePm-2-5 **Bortolotti, Lisa** University of Birmingham, United Kingdom

Reviewing the definition of confabulation in light of its applications in normal and abnormal cognition

A definition of confabulation on the basis of its epistemic features (e.g. whether the reported belief is true or justified) is useful because it is independent of theoretical perspectives about the neural bases and the genesis of confabulation. Hirstein (2005) claims that confabulators do not know that their beliefs are ill-grounded when they should know. By reference to confabulation in normal cognition and in Alzheimer's disease, I argue that Hirstein's definition fails to take into account that the grounds for confabulators' beliefs may not be available to them, and that confabulation may positively contribute to their sense of self.

Tuesday 28, 14:15-15:45	Miyabi	Symposium Cognitive Approaches to Deception Detection
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S-TuePm-3-0 **Leach, Amy-May** **Chair**

S-TuePm-3-1 **Vrij, Aldert** University of Portsmouth

Coauthors: Leal, Granhag, Mann, Fisher, Hillman, & Sperry

Outsmarting the Liars: The Benefit of Asking Unanticipated Questions

We hypothesized that responses of pairs of liars would correspond less with each other than responses of pairs of truth tellers, but only when the responses are given to unanticipated questions. Liars and truth tellers were interviewed individually about having had lunch together in a restaurant. The interviewer asked typical opening questions, followed by questions about spatial and/or temporal information and a request to draw the layout of the restaurant which we expected to be unanticipated. Based on correspondence in responses to the unanticipated questions, up to 80% of liars and truth tellers could be correctly classified, particularly when assessing drawings.

S-TuePm-3-2 **Mann, Samantha** University of Portsmouth

Coauthors: Vrij, Granhag, Leal, Fisher, Hillman, & Sperry

Catching the Liars: Asking Unanticipated Questions

In a previous experiment, pairs of liars and truth tellers were interviewed individually about having had lunch together in a restaurant. The interviewer asked general questions, followed by questions about spatial and/or temporal information and to draw the restaurant layout. Eighty observers were exposed to the drawings or transcripts of answers to the opening, spatial or temporal questions obtained in the previous deception experiment. We found that observers could distinguish between pairs of truth tellers and liars on the basis of the answers to spatial questions and drawings, but not on the basis of opening and

temporal questions.

S-TuePm-3-3 **Leal, Sharon** University of Portsmouth

Coauthors: Vrij, & Mann

Playing Devil's Advocate: Discovering the Hidden Truth

Detecting deception conveyed in opinions is difficult, because most detection tools can only be used when events are described. Detecting deception about opinions could feasibly be enhanced by a technique that elicits both real and unreal beliefs. 17 participants expressed their opinion on a subject they felt strongly about before being asked to 'play devil's advocate' regarding that opinion. We predicted that truth tellers would say more during the eliciting opinions (EO) question than in the devil's advocate (DA) question, whereas liars would say more during the DA question as this would be their true opinion. Results supported our expectations.

S-TuePm-3-4 **Hartwig, Maria** John Jay College of Criminal Justice

Coauthors: Doering

Strategies of the deception game: A social cognitive theory of the psychology of innocence and guilt

Cues to deception are scarce, and detecting deception is a close-to-chance enterprise. We offer a theoretical sketch of the psychology of innocent and guilty suspects of relevance for deception detection in the legal system, and for the dynamics of deception and its detection in interpersonal settings. We propose and elaborate on an empirically grounded framework on deception hinging on two theoretical principles: Deception and its detection can be analyzed as a form of game of strategies, and deception and its detection between social actors can be understood by invoking concepts related to social cognition, particularly self-regulation, control strategies and self-efficacy.

S-TuePm-3-5 **Leach, Amy-May** University of Ontario Institute of Technology

A new look at deception: Revisiting cognitive dissonance theory

Closely examining the cognitive processes underlying deception might reveal ways to make lying more transparent. One possibility is that cognitive dissonance theory can be applied to the study of deception. Lie-tellers might experience a discrepancy between their cognitions (e.g., "Lying is wrong") and behaviour (telling a lie), resulting in feelings of psychological discomfort. In turn, this discomfort could be expressed through nonverbal and verbal cues. Previous lie detection research will be re-examined from a cognitive dissonance perspective. Moreover, recent successful tests of predictions derived from the theory will be presented. Finally, implications for the justice system will be discussed.

Tuesday 28, 14:15-15:45	Zuihou	Symposium "Flashbulb memories": New issues and new perspectives
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S-TuePm-4-0 **Luminet, Olivier** **Chair**

S-TuePm-4-1 **Luminet, Olivier** Catholic University of Louvain

Testing Four Models of Flashbulb Memory Formation across Groups and the Specific Effects of Social Identity.

Four theoretical models accounting for FBM formation were tested after the 9/11 attacks in the US in 2001 in two groups of participants (US and non-US). Structural equation modeling revealed that 1) a revision of Finkenauer et al.'s (1998) model provided the best fit indices in both groups, 2) the "direct path" (from novelty/surprise to FBMs) was found to be significant only for the US group, while the "indirect path" (from emotional states, rehearsal and event-memory to FBMs) was only significant for the non-US group. It is suggested that the specific activation of social identity in the US group can explain these differences.

S-TuePm-4-2 **Curci, Antonietta** University of Bari

Coauthors: Lanciano

The Latent Structure of Flashbulb Memory

Flashbulb memories (FBMs) have been defined as vivid, detailed, and long-lasting memories of the reception context of public news (Brown & Kulik, 1977). Although the traditional measurement approach of autobiographical memory has supported the idea of dimensionality, the distinction between categorical and dimensional latent structure poses important implications on FBM research. The present work aimed to explore the latent structure of FBM, by simultaneously applying dimensional and categorical models. Taxometric analyses were applied to FBM data, by considering the categorical and the dimensional approaches as two competing hypotheses to assess the best fitting one to FBM data.

S-TuePm-4-3 **Talarico, Jennifer** Lafayette College, USA

"Freshman flashbulbs"

Events during the transition to college lead to flashbulb memories. Participants vividly and confidently remember where they were and what they were doing. Furthermore, large numbers of participants experience them, allowing differences among these memories to be examined while keeping time, location and general event facts constant. Unique events were rated as more emotional and significant than first-time events, yet both were recalled with similarly enhanced vividness and confidence and with similar content. Positive and negative experiences were equally significant and held with equal confidence, however, enhanced emotional intensity for negative events was associated with increased vividness and reliving.

S-TuePm-4-4 **Meksin, Robert** New School University, USA

Coauthors: Hirst

The long-term retention of the terrorist attack of September 11: A large scale three-year study

More than 3,000 individuals from seven US cities reported after one week, 11 months, and 35 months their memories of both learning of and details about the terrorist attacks of September 11. Studies of flashbulb memories examining long-term retention have shown both slowing and acceleration in the rate of forgetting after a year. The present paper indicates that the rate of forgetting for flashbulb memories and event memory slows after a year, with strong emotional reactions elicited by the event remembered substantially worse than other aspects of the flashbulb memory. The results are discussed in terms of community memory practices.

S-TuePm-4-5 **Wright, Daniel B.** **Discussion**

Tuesday 28, 14:15-15:30	Aoi	Regular Session
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R-TuePm-5-0	Itsukushima, Yukio	Chair
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R-TuePm-5-1 **MacLean, Carla L.** University of Victoria

Coauthors: Lindsay, & Brimacombe

A Priori Knowledge and Tunnel Vision Education: An Exploration in the Industrial Accident Investigation

Workplace accident investigations play an important role in preventing future accidents by determining direct and contributing causes and raising safety awareness. The current study explores confirmation bias in industrial investigations and assesses the efficacy of education as a debiasing strategy. Investigator education informed subjects about confirmation bias and encouraged them to consider alternative hypotheses. Findings demonstrate education's influence on participant behaviour (i.e., blame allocation for the accident, information seeking, and evaluation of additional information) as well as its relationship with participants' introspective reports.

R-TuePm-5-2 **Tamada, Keisaku** Keio University

The effect of comic reading literacy and spatial ability in learning by using comics for adults.

The purpose of this study was to investigate the effect of cognitive ability and comic reading literacy in learning, using comics for adults. Participants read comics or text as stimuli to learn. After, they performed a cognitive test, a comic reading literacy test, and a comprehension test about the learning material. The comic group evaluated the learning material more positively than the text group. Only the evaluation of the learning material was positively and significantly correlated with the comprehension test score. This result suggests that because adults have high cognitive ability, emotional aspects play a more important role than cognitive aspects in learning by comics for adults.

R-TuePm-5-3 **Uesaka, Yuri** Tokyo Institute of Technology

Coauthors: Manalo, & Sekitani

Are Pictorial Mnemonics Helpful in Teaching English Letter-sound Correspondence to Japanese Children?

This study examined whether using pictorial mnemonics would help Japanese school children to better remember the sounds associated with consonants of the English alphabet. Participants were 154 6th-grade Japanese students. They were provided letter-sound instruction in one of four groups to which they were assigned. The groups were: with pictorial mnemonics, with emphasis on differences in pronunciation between English and Japanese, with both pictorial mnemonics and emphasis on pronunciation, and without additional manipulations (control). The results show that both instructions with pictorial mnemonics and with emphasis on the differences in pronunciation promoted significantly better retention of the letter-sound associations.

R-TuePm-5-4 **Meyer, Ashley N.D.** Rice University

Coauthors: Logan

Subject-Chosen Feedback: Can Accurate Metacognitive Monitoring Allow One to Correctly Choose and Benefit from Feedback?

An unexplored attribute of feedback that may affect feedback effectiveness is learners' ability to choose it when needed. Successful monitoring may allow learners to assess their need for feedback, enabling them to improve as much as if they had received automatic feedback. As learners attempted to learn both foreign-language vocabulary and deceptive and nondeceptive sentences, subject-chosen and automatic feedback helped improve learners' performance similarly, despite inequities in total feedback received. Allowing a learner to choose his or her own feedback can be a beneficial way to deliver feedback that can be applied in a variety of learning situations.

R-TuePm-5-5 **Shorr, Daniel J.** Georgia Institute of Technology

Coauthors: Ezer, Fisk, & Rogers

Effects of visual degradation on warning symbol comprehension

Warning symbols must be comprehensible under a variety of environmental conditions. This study investigated effects of visual degradation on warning symbol comprehension. ANSI symbols of four types (prohibition, course of action, information, and hazard symbols) were presented to 27 younger adults at three degradation levels (0%, 30%, 40% of pixels inverted). Accuracy and reaction time in answering yes-no questions about whether the symbols were paired with correct labels were recorded. Results showed 40% degraded symbols and hazard alerting symbols were least understood. Thus symbols must be substantially degraded to affect symbol comprehension ability but hazard symbols are generally poorly recognized.

Tuesday 28, 14:15-15:45	Hagoromo	Symposium
		Clinical implications of memory distortion

S-TuePm-6-0 **Strange, Deryn** **Chair**

S-TuePm-6-1 **Takarangi, Melanie** Leicester University

Coauthors: Strange

For better or for worse? External feedback affects autobiographical memory for positive events

Previous research suggests that people's memory for witnessed events is greatly influenced by information from others' experience of the same event. We were interested in whether people's memory for an autobiographical event would be influenced by external feedback about the supposed emotional impact of that event. We asked people to recall a recent positive autobiographical experience, and gave them positive feedback, negative feedback or no feedback about that event. Our results indicate that the direction of the feedback did affect how subjects remembered the event, and suggest a potential mechanism by which positive memories could be subject to memory distortion.

S-TuePm-6-2 **Strange, Deryn** John Jay College of Criminal Justice

Coauthors: Takarangi

Reinterpretation of negative autobiographical memories

Do people who are given different types of feedback about their negative autobiographical experiences change their memory for that experience in line with the feedback? We asked participants to recall a recent negative memory then, 24 hours later, we gave them positive feedback, negative feedback or no feedback about that event. One week later, participants recalled the event again. We predicted that if different types of feedback cause subjects to reinterpret their memories for negative experiences, then subjects should rate those experiences differently in Session 3 than they did originally. Our results indicate that the direction of the feedback affected participants' memories. We suggest that external feedback might be a potential mechanism in the maintenance and promotion of PTSD.

S-TuePm-6-3 **Scoboria, Alan** University of Windsor

Memories for future winnings: Examining rigid beliefs about gambling outcomes in problem gamblers

Recent literature suggests that a key difference between problem and non-problem gamblers is that the former are convinced that they are due a win. Based upon research on episodic future thinking and the development of false memories for past events, it is plausible that problem gambling may reflect an error in "remembering" future winnings. Possible mechanisms include rehearsal of future wins resulting in memory like mental experiences and the development of erroneous beliefs. To examine this possibility, 40 problem and 40 non-problem gamblers described imagined future wins and losses, and provided phenomenological ratings for each event. Data which are currently under analysis will be presented, and clinical implications will be discussed.

S-TuePm-6-4 **Lorber, William** Milwaukee Veterans Affairs Medical Center

Coauthors: Nielson

The cost of control: Emotion regulation strategies differentially affect short- and long- term retention

Studies of emotion regulation (ER) and memory have suggested that suppression impairs, while reappraisal enhances memory. This study, however, uniquely employed delayed memory tests for better assessment of long-term retention. 158 participants, categorized into high/low reappraisal, suppression and experiential avoidance groups, rated emotionally evocative words for arousal and valence. Testing after a one-week delay showed memory was unaffected by suppression but impaired by reappraisal. It is proposed that the short-term effects of ER strategies on arousal response during learning can affect short-term and long-term retention differently because they also influence memory consolidation. Clinical implications will be discussed.

S-TuePm-6-5 **Nielson, Kristy A.** Marquette University

From comedy to gum chewing: non-invasive, biologically based memory interventions for young and old

A long history of animal research has shown that long-term memory storage, or consolidation, is enhanced by moderately stimulating or arousing treatments given soon after learning. The mechanisms of

the effect are complex but directly involve modulation of hippocampal function via brainstem and amygdala nuclei activated by adrenergic hormone stimulation. We have recently employed various arousing interventions shortly after learning, including videos of comedy or surgery, muscle tension "squeeze balls," and gum chewing, which significantly enhanced long-term retention of learning in both young and older adults, and even in the classroom. Several of these studies will be discussed.

Wednesday 29, 10:45-12:00	Saga	Symposium The contamination of co-witnesses: What factors influence a witness's susceptibility to memory conformity?
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S-WedAm-1-0 Paterson, Helen Chair

S-WedAm-1-1 Wright, Daniel B. Florida International University

Coauthors: Memon, Skagerberg, & Gabbert

When Eyewitnesses Talk

When two people witness an event they often discuss it. Because memory is not perfect, sometimes this discussion includes errors. One person's errors can become part of another person's account, and this proliferation of error can lead to miscarriages of justice. The social and cognitive processes involved are described. Research shows how people combine information about their own memory with other people's memories based on factors such as confidence, perceived expertise, and the social cost of disagreeing with other people. Implications for eyewitness testimony are described.

S-WedAm-1-2 Jamieson, Kat University of Abertay, Dundee

Coauthors: Gabbert, Allan, & Carson

The effects of actual versus perceived memory quality on our susceptibility to memory conformity

We investigated the effects of actual versus perceived memory quality upon an individual's susceptibility to memory conformity. Dyad members separately studied a series of images depicting objects, whilst simultaneously engaging in an auditory digit-summation task to divide attention (DA). To manipulate actual memory quality, the DA task was either relatively easy, or difficult. To manipulate perceived memory quality, dyad members were told their DA task was easier, or more difficult than their partner's, whereas in fact both were the same. Post-event information was introduced via a virtual confederate. Findings are discussed in relation to meta-cognitive and social factors underlying memory conformity.

S-WedAm-1-3 Paterson, Helen The University of Sydney

Coauthors: Whittle

Detrimental Effects of Post-Incident Debriefing on Memory and Psychological Wellbeing

Emergency services often provide staff with Critical Incident Stress Debriefing (CISD) following exposure to traumatic events. However, research suggests that these group debriefing sessions may increase the risk of PTSD and also permanently distort the participants' memories for the events. This study compared the impact of two CISD stages on eyewitness memory and psychological wellbeing. In pairs, participants unknowingly viewed slightly different versions of a mildly stressful video. Participants were then randomly allocated to one of three debriefing conditions: emotion-focused, fact-focused, or no debriefing. Results from this study have important implications for the development of new, more effective post-trauma interventions.

S-WedAm-1-4 Gabbert, Fiona University of Abertay, Dundee

Coauthors: Hope

Pros and cons of conferring prior to writing a statement

A current UK debate concerns whether police officers should be allowed to confer prior to writing individual statements. Relevant literature suggests this procedure could have benefits, such as 'cross-cuing' memories. Conversely, 'retrieval inhibition' or 'memory conformity' could occur, reducing

the amount, and accuracy, of information respectively. To investigate this, participants were tested in small groups. A 2 (simulated crime-event: same for all group members; slightly different versions seen by group members) x 3 (retrieval task: conferring; no conferring; individual report noted prior to conferring) between-subjects design was employed. The pros and cons of conferring on subsequent memory reports are discussed.

S-WedAm-1-5 **Kemp, Richard** University of New South Wales

Coauthors: Maretti, & Heidecker

The importance of being there: Memory conformity for actively experienced events

Most studies of co-witness memory test memory for a passively experienced to-be-remembered event such as a video. We report the results of studies employing a new “treasure hunt” methodology which enables us to examine memory conformity for actively experienced events. Pairs of participants walked around the University campus following a series of clues and then discussed the event with their partner before providing individual recall. Results show that co-witness discussion can cause memory conformity for the details of an actively experienced event, but that the effect is reduced relative to passively experienced events. The implications of these findings are discussed.

Symposium		
Wednesday 29, 10:45-12:00	Kuretake	Trauma and memory: How to link cognitive and clinical science

S-WedAm-2-0 **Geraerts, Elke** **Chair**

S-WedAm-2-1 **Engelhard, Iris M.** Utrecht University, The Netherlands

Coauthors: van den Hout, & McNally

Malleability of memories for traumatic events

Retrospective accounts of traumatic events are reliably related to posttraumatic stress disorder (PTSD) symptoms. This is often interpreted as causal impact of such events on functioning, but the causal direction may (partly) be reversed: more PTSD-symptoms may be associated with amplified recollections of precipitating stressors. The aim of this prospective study was to index the consistency with which Dutch soldiers reported stressors on their deployment to Iraq, and examine whether PTSD-symptoms and pre-existing reporting biases affect memory inconsistency. Retrospective accounts of stressors were highly variable over time. Higher levels of PTSD-symptoms and neuroticism were associated with increased reporting over time.

S-WedAm-2-2 **Huntjens, Rafaele** University of Groningen, The Netherlands

Apparent Amnesia: Experimental Research on Inter-Identity Amnesia in Dissociative Identity Disorder

DID patients very frequently report episodes of inter-identity amnesia, in which an identity claims amnesia for events experienced by other identities. We designed a series of experimental studies to determine the degree of information-transfer from one identity to another. Both explicit and implicit memory tests (i.e., the expression of information without conscious recollection) were used and both neutral and trauma-related material was included. Special attention was given to control for simulation of amnesia symptoms. The results of these critical studies collude in that they showed evidence of transfer of information between identities.

S-WedAm-2-3 **Lang, Tamara J.** University of Oxford, UK

Coauthors: Moulds, & Holmes

Computerized Cognitive Bias Modification of Appraisals Task Reducing Depressive Intrusions

Negative intrusive memories are a feature of depression. Negative interpretations of such intrusions (e.g., having intrusive memories means I’m crazy) are associated with the maintenance of depression. We will discuss an experiment, which tested a new cognitive bias modification (CBM) technique, which targets

appraisals of depressive intrusions. In this experiment, participants were randomly allocated to a session of positive or negative CBM and subsequently watched a depressive film. Participants who underwent positive CBM reported a more positive appraisal bias and less intrusive symptomatology one week later. The novel clinical implications derived from this CBM paradigm will be discussed.

S-WedAm-2-4 **Geraerts, Elke** Erasmus University Rotterdam, the Netherlands
and University of St Andrews, UK

Cognitive mechanisms underlying recovered memories of childhood sexual abuse

People sometimes report recovering long-forgotten memories of childhood sexual abuse. The memory mechanisms that lead to such reports are not well understood, and the authenticity of recovered memories has often been challenged. In several studies we have now identified two subgroups of people reporting recovered memories of childhood abuse that differ dramatically in their cognitive profiles. The patterns of memory function that will be discussed in this talk indicate differing mechanistic origins of recovered memories.

S-WedAm-2-5 **Holmes, Emily A.** **Discussion**

Symposium		
Wednesday 29, 10:45-12:00	Miyabi	Concealed Information Test: Current Practice and Research in Japan

S-WedAm-3-0 **Nitto, Hiroshi & Hira, Shinji** **Chairs**

S-WedAm-3-1 **Hirota, Akihisa** National Research Institute of Police Science, Japan

Coauthors: Ogawa, & Matsuda

The polygraph examination in Japan

The purpose of the Japanese polygraph examination is to judge whether an examinee has a memory of a crime or not. Its procedure is based exclusively on the concealed information test (CIT). In the CIT, a set of questions, which include a crime-related item and control items, is presented to an examinee. The questions are constructed so that only a guilty person could distinguish the crime-related item from the control ones. Thus, discrimination is considered the principle of the CIT, and lying is not a necessary prerequisite. We report the current situation in the Japanese polygraph examination.

S-WedAm-3-2 **Ogawa, Tokihiro** National Research Institute of Police Science, Japan

Coauthors: Hirota, & Matsuda

Clues for understanding the significance of the critical item in the concealed information test

Elucidating cognitive and physiological mechanisms or processes that underlie different responses to critical versus non-critical items in the concealed information test (CIT) has been one of the major topics in the domain. For example, despite decades of study, little is known about the nature of "significance" of the critical item in the CIT. We will present laboratory data investigating this topic. Some of these data were derived from reaction time-based experiments, which are popular in cognitive psychology but not in this area. We also discuss possible applications of these paradigms to the practical field.

S-WedAm-3-3 **Otsuka, Takuro** Forensic Science Laboratory of Hyogo Prefectural Police

Coauthors: Hosokawa, Kazai, & Katayose

Simultaneous measurement of NIRS hemodynamic responses and autonomic responses in a concealed information test

The present study examined the validity of hemodynamic responses in the prefrontal cortex recorded by near-infrared spectroscopy (NIRS) as an index of the concealed information test (CIT). Eleven participants enacted a mock crime and were examined for the knowledge of the item they stole (guilty condition). They were also tested for the item stolen in another mock crime in which they did not participate (innocent condition). In the guilty condition, the presentation of the stolen item elicited larger

hemodynamic responses as well as larger autonomic responses. This result suggests that NIRS could provide an additional index for the polygraph examination.

S-WedAm-3-4 **Hira, Shinji** Fukuyama University

International contributions by Japanese polygraphers to the forensic use of the concealed information test

In Japan, the concealed information test (CIT) has been extensively and successfully used in criminal investigations since the 1950s. The number of polygraphic examinations given in Japan is about 5000 per annum. Furthermore, basic studies of the CIT, such as an automated diagnostic method by a computer, and detecting concealed information by using event-related brain potentials, are actively carried out by many Japanese police polygraphers to improve the reliability of the method. I will introduce the advanced Japanese method of forensic polygraph and the basic and applied studies in Japan, and propose international contributions that Japanese polygraphers would provide.

S-WedAm-3-5 **Ben-Shakhar, Gershon** **Discussion**

Wednesday 29, 10:45-12:00	Zuihou	Symposium
History and Memory: Cognitive Perspectives		

S-WedAm-4-0 **Brown, Norman R.** **Chair**

S-WedAm-4-1 **Hirst, William** New School for Social Research

Coauthors: Coman

Towards a psychology of collective memory

Halbwachs (1925/1992) and Nora (1989) have distinguished history and collective memory by treating the former but not the latter as possessing professionalized standards of evidence. Even so, many students of collective memory find little place for individual memory in accounts of the formation of collective memory. However, a strong argument exists for treating the formation of collective memories as the spread of a memory through a network of individuals. Psychological mechanisms and processes could facilitate or constrain mnemonic transmission. We illustrate the influence of psychological processes in an experimental study of the role of retrieval-induced forgetting in mnemonic spread.

S-WedAm-4-2 **Nourkova, Veronika V.** Moscow State University, Moscow Russia

When historical becomes personal? Age at encoding and temporal distance predict sensitivity to historical memories

When do people consider historical events as a significant part of their personal past? 457 Russian participants recollected their lives without special correspondence to history. 20% of them spontaneously mentioned historical events. The most common were WW II, Collapse of USSR and Financial default. 80% of mentioned events occurred when participants were younger than 27, while nothing from the last decade. Participants younger than 27 didn't recollected historical events, while 77% of participants older than 65 did so. Hence, to have historical memories it is necessary: to experience historically transitional events in youth, to pass the reminiscence bump period and to have at least decade time perspective.

S-WedAm-4-3 **Brown, Norman R.** University of Alberta

Coauthors: Lee

How Age Affects the Creation of Historically-Defined Autobiographical Periods

This study employed a two-phase procedure to assess the impact of group conflict on the organization of autobiographical memory in people who were children, teenagers or young adults during the Bosnian Civil War. All participants first responded to 20 neutral cue words by recalling personal memories; then, they thought aloud while dating each recalled event. Regardless of age, participants often mentions the civil war when dating mundane personal events during war years (1992-1995), though this tendency was much stronger in the oldest (85%) and middle (83%) groups than in the youngest group (51%).

Implications of this finding will be discussed.

S-WedAm-4-4 Hansen, Tia G. B. Aalborg University, Denmark

Coauthors: Brown, Vanderveen, Conrad, & Lee

Life-long effect of living in history

The living-in-history (LIH) effect demonstrated in young samples might be transitory. We tested its duration by extending the paradigm to people who were young during WWII. Samples of Danes, Dutch, Canadians and US-Americans (N=14-36) showed that (1) World War II is used to date personal events even 60 years later, (2) the graded LIH-effect found in young Balkan samples replicates: the more invasive the war, the more LIH-effect, and (3) since WWII coincided with the reminiscence bump for these samples, a high percentage of memories was from the relevant period. Future studies need to disentangle the bump from the LIH-effect.

S-WedAm-4-5 Conway, Martin A. Discussion

Wednesday 29, 10:45-12:00	Aoi	Regular Session
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R-WedAm-5-0	Itoh, Yuji	Chair
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R-WedAm-5-1 Arakawa, Ayumu Nagoya University

Coauthors: Kawano

Cognitive bias of jurors concerning the verdict of defendants with a personality disorder

On the 21st of May in 2009, a mixed jury system will be adopted in Japan for major criminal cases. In this system, bias and prejudice among jurors is a potential problem. The current study examined whether knowledge of a defendant's personality disorder has an effect on juror decision-making. Undergraduate students participated as mock-jurors in one of three groups, and were provided with a questionnaire outlining a scenario involving an attempted murder case. The impact of the mental status of the defendant on jurors' decision-making was examined. The effect of differentiating the defendant from "ordinary people" on jurors' opinions will be discussed.

R-WedAm-5-2 Sandham, Alex Lancaster University, UK

Coauthors: Ormerod, & Taylor

The roles of familiarity, experience and domain in determining the inferences that investigators draw

How do police investigators handling critical incidents remain open to all possibilities when research suggests that cognitively our tendency is to satisfice? This paper describes three experiments assessing how civilian individuals and police investigators, employ investigative reasoning across three incident types (murder, bombings and fatal accidents). Results show differences in both the quantity and quality of inferences made. The 'principle of truth' showed very powerful effects. Our results suggest that investigator role needs to be understood fully before training is designed, as the same training package will not fit all types of investigator /investigation requirement.

R-WedAm-5-3 Pezdek, Kathy Claremont Graduate University

Coauthors: Stolzenberg

How Accurately Can Individuals Judge Whether a Person is Familiar to Them, and How are Familiarity Judgments Affected by Exposure Time and the Cross-Race Effect?

One factor that affects the accuracy of eyewitness identification is whether the suspect is familiar to the eyewitness; familiar individuals are more likely to be correctly identified. However, no research has examined how accurately individuals can assess whether someone is familiar to them. Although it is clear that very familiar people can be classified as familiar very accurately, it is not clear how well people can classify as familiar, people seen only incidentally. We assessed peoples' ability to judge the familiarity of faces, and how these judgments are affected by the cross-race effect (Experiment 1) and exposure time

(Experiment 2).

R-WedAm-5-4 **Goodman-Delahunty, Jane** Charles Sturt University

Multimedia, traditional oral DNA expert evidence and the "white coat syndrome"

Jurors consistently struggle with DNA evidence. Correctly applying this evidence is crucial to justice. Basic DNA knowledge was assessed in a community sample of 3611 Australian jury-eligible citizens of whom 470 served as virtual jurors in simulated trial involving evidence of a DNA match. Cognitively sequenced expert evidence on DNA was presented orally or with multimedia. Expert evidence significantly increased DNA knowledge. Education did not predict verdicts, but the conviction rate was highest among mock-jurors with the least DNA knowledge. Multimedia facilitated learning and reduced mock-juror susceptibility to the "white coat" syndrome.

R-WedAm-5-5 **Sasaki, Rie** Keio University

Coauthors: Hine, Itoh, Boyce, Lindsay, & Brimacombe

Evaluation of eyewitness identification evidence by student-investigators: Knowledge on own-race bias and its use

This research compared the impact of eyewitness identification judgment for lineups of Asian and white persons on student-investigators with Japanese participants. Student-investigators interviewed student-witnesses who observed a videotaped crime committed by an Asian or white culprit. Then they chose a suspect from a database of potential suspects and administered a photo lineup to witnesses. Investigators' ratings of the probability that their suspect was guilty were changed significantly by eyewitness identification judgment. However, whether the lineup was of Asian or white did not influence the effect of identification judgment. Investigators' subjective evaluation of eyewitness judgment is also analyzed and discussed.

Symposium

Wednesday 29, 10:45-12:00

Hagoromo

Manipulations and Heuristics That Lead to False Beliefs and Memories

S-WedAm-6-0

Nash, Robert A.

Chair

S-WedAm-6-1 **Newman, Eryn J.** Victoria University of Wellington

Coauthors: Frame, Bernstein, Lindsay, & Garry

When photos raise people from the dead: Photos, fluency, and attributions of truth

Repeated exposure to photographs can profoundly affect beliefs and memories for previous experiences. But it is unclear how a single, quick exposure can affect beliefs about facts. In two experiments, we showed subjects names of dead or alive famous people, normed for familiarity. Names were paired with or without a related photograph. People responded true or false to the claim "This person is alive" (or "This person is dead") within 3 seconds. Photos made subjects more accurate on familiar names and more likely to say "true" on unfamiliar names. These results have implications for how photos affect heuristic judgments.

S-WedAm-6-2 **Henkel, Linda A.** Fairfield University

Photograph-Induced Memory Errors for Performed Actions

This project examines the role of photographs in inducing people to falsely remember performing actions that they did not in fact perform. Participants performed and imagined various actions and then later saw photographs of actions in their completed states (e.g., a broken toothpick, a deflated balloon) or just read the name of the action. Viewing photographs of nonperformed actions was found to induce high-confidence false memory reports for having performed those actions. Such errors were more prevalent when photos were seen than when just the name of the actions was seen, and errors increased systematically with number of exposures.

S-WedAm-6-3 **Nash, Robert A.** University of Warwick

Coauthors: Wade, & Lindsay

Digitally manipulating memory: Doctored-video evidence distorts recent memories, but why?

Doctored images can alter beliefs and memories about childhood experiences, but what about recent experiences? In two experiments, subjects were filmed observing and performing simple actions, and two days later they were exposed to doctored video-clips that implied they had performed additional actions. Two weeks after seeing these clips, subjects frequently reported false beliefs and memories of performing the additional actions. In a third experiment, we found that at least two cognitive mechanisms are responsible for this 'false-evidence effect'. We offer a metacognitive account of our findings, which have implications for the role of evidence in belief and memory formation.

S-WedAm-6-4 **Foster, Jeffrey L.** Victoria University of Wellington

Coauthors: Gerrie, & Garry

Do People Have Fewer False Memories When They Perform Actions Than When They Witness Actions?

Are people protected from false memories if they do something rather than merely watch something? We addressed this question, asking some people to build Lego toys, in a structured way, while others watched. We asked the people building the toys to perform some steps in the building sequence, but not others. Later, everyone took a memory test, trying to identify the steps that were actually performed. Although people who built the toys reported fewer false memories than people who watched, both builders and watchers systematically developed false memories, all without experimenter suggestion.

S-WedAm-6-5 **Kawasaki, Yayoi** Japan Society for the Promotion of Science / Nihon University

The self-choice effect on true and false memory

This purpose of the study was to examine two major theories of false memories; implicit activation and source monitoring approach, and fuzzy trace theory, with self-choice effect in the DRM paradigm. The self-choice effect is the superior memory performance observed when participants are allowed to choose the item at the study phase. Twenty participants studied four DRM lists in two conditions; a forced condition and a self-choice condition. Participants were subsequently asked to recall as many as possible. The results showed that a self-choice effect was observed in relation to the word lists and CLs associated from list words that were not chosen at study. Hence implicit activation and source monitoring approach was supported.

Wednesday 29, 13:00-14:15	Saga	Regular Session
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R-WedPm-1-0	Takahashi, Masanobu	Chair
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R-WedPm-1-1 **Tanaka, Mio** Nihon University

Coauthors: Itukushima

Deception of eye-witnessed events leading to memory distortion: Experimental research on the effect of inhibiting original memory rehearsal

This study investigated whether memory rehearsal of eye-witnessed events were inhibited when people gave a false recount of those events. Participants were assigned to a one of four groups: Commission which is to make false recollection, Omission which is to make incomplete recollection, Genuine which is to recall accurately, and Non-Rehearsal which is without recalling the event, and compared their memory performance after a week from eye-witnessed. Results showed that deceptive strategies affect to recall the eye-witnessed events differently, and that the original memory rehearsal was inhibited by using Commission strategy when people gave a false recount.

R-WedPm-1-2 **Toglia, Michael P.** University of North Florida

Coauthors: Mueller-Johnson, Sweeney, O'Connell, & Ceci

Physiognomic cues of old age and perceived witness credibility

These two studies are the first to examine the effect of facial aging cues on witness credibility. In study 1, photographs of older adults (male, female, ages 69,79,89 years) were rated by undergraduates for witness characteristics. Study 2, adding a witness transcript to the photo, asked for the same ratings. Consistent with the stereotype literature, when participants only have a witness' picture, older witnesses are rated more unfavourably than younger, and women more unfavourably than men. However when participants also have a statement, ratings become less stereotypical and are more based on what witnesses say than how old they look.

R-WedPm-1-3 **Azad, Tanjeem** University of Victoria

Coauthors: Lindsay, & Brimacombe

Examining the memory conformity effect: Do people falsely “remember,” “know,” or “guess” unseen details they learned from another person during co-witness discussion?

We examined the extent to which people falsely remember details they learned from another person during co-witness discussion. Subjects were tested in pairs, with each member of a pair shown a different version of a video. There were critical details in each of the following conditions: visible to only one member of the pair, visible to both members of the pair, and not visible to either member of the pair. Preliminary findings from a source judgment and R/K/G judgment task suggest that co-witness discussion may lead people to genuinely experience illusory recollections for details they did not witness themselves.

R-WedPm-1-4 **Nakayama, Tomonori** Chuo University

Coauthors: Muneyoshi

Recall of witnessed event or post-event information affects source monitoring

This research examined the influence on source-monitoring using post-event information (PEI) effect paradigm when participants retrieve witnessed event or PEI. In Experiment 1, participants recalled witnessed event before or after PEI with "report everything instruction". As a result, in both condition, correct response about witnessed event was lower than control condition. In Experiment 2, participants completed cued recall test about witnessed event or PEI (misinformation). As a result, only when participants retrieved PEI (misinformation), correct response about PEI (misinformation) was increased. These results suggest that retrieving post-event information may prevent error response.

R-WedPm-1-5 **Lindsay, Stephen** University of Victoria

Coauthors: Ferguson, Brimacombe, Dahl, Boyce, & Azad

Investigating Investigators: Simulated Police Investigations of Multiple Crimes

We extended our studies of simulated police investigations (e.g., Boyce, Lindsay, & Brimacombe, 2008; Dahl, Brimacombe, & Lindsay, 2007). In our prior studies, each role-playing investigator interviewed one witness about a crime and later administered a lineup test to that witness. Subject/investigators were greatly swayed by identification evidence and were generally insensitive to factors that affected eyewitnesses' accuracy. In our new work, each subject/investigator investigated four different crimes, each with its own witness (two who had good views of the culprit, two who had poor views, one of each tested on a TA lineup the other on a TP lineup).

Wednesday 29, 13:00-14:15

Kuretake

Regular Session

R-WedPm-2-0

Muroi, Miya

Chair

R-WedPm-2-1

Speed, Ann

Sandia National Laboratories

Coauthors: Benz, Dixon, Verzi, Warrender, Matzen, & Doser

Understanding the neurophysiology of analogy-making through computational modeling

This paper outlines a computational modeling project attempting to link representational properties of neurons in V1 through anterior areas of prefrontal cortex in order to simulate human-like analogy making. To date, computational models of analogy have not addressed the problem of knowledge representation in the brain. Rather they assume discrete symbolic representations and posit algorithms to manipulate those

symbols in a way that resembles analogy at a behavioral level. This paper briefly reviews previous modeling attempts, then discusses the current project, its strengths and weaknesses and some of challenges and issues associated with the final version of the current model.

R-WedPm-2-2 Watanabe, Megumi Kyushu University

Coauthors: Hakoda, Nomura, & Matsumoto

Relationship between Switching Attention, Arousal Level and Immune-Endocrine Secretion

The relationship between switching attention, level of arousal and salivary immunoglobulin A (S-IgA) in anxiety disorder patients was examined. Patients suffering from depression took part in the study alongside a control group. The original group version Stroop test and a Mood Adjective Check List were used. Anxiety disorder patients showed reverse Stroop interference which was significantly higher during the switching procedure than during the normal procedure. The patient group data showed both energy-arousal levels and S-IgA levels significantly increased during the Stroop test. Results suggest that the function of switching attention is vulnerable to higher arousal in the anxiety disorder group.

R-WedPm-2-3 Ziniel, Sonja Harvard Medical School

Coauthors: Brown, & Conrad

Cognitive Aging, Response Strategy Choice, and Accuracy of Frequency Estimates

Normal cognitive aging may be associated with increased difficulties in answering survey questions, resulting in poorer data quality. This study addresses (1) whether age-related decline in cognitive functioning increases the likelihood that respondents use cognitively less taxing response strategies when answering behavioral frequency questions and (2) whether this change in strategy choice produces overall differences in the accuracy of frequency estimates. Frequency reports, records, and other factors known to influence response strategy choice were collected from forty young and 40 old respondents through in-person interviews. Results show a differential use of response strategies between young and old respondents controlling for other known factors.

R-WedPm-2-4 Fohn, Adeline University of Louvain

Coauthors: Heenen-Wolff, & Luminet

The impact of early non-recognized trauma on current Post-traumatic stress disorders symptoms and the strategies to cope with intrusive thoughts

The study examines the long-term impact of an early non-recognized trauma on current Post-traumatic symptoms and the strategies used to cope with intrusive thoughts. Fifty-four Jewish hidden children survivors of the Holocaust completed the Impact of Event Scale-Revised (IES-R, Brunet, St Hilaire, Jehel, and King, 2003) and the Thought Control Questionnaire (TCQ, Wells and Davies, 1994). Our results show that age and the family composition after the war influence the post-traumatic symptoms and the strategies to cope with intrusive thoughts.

R-WedPm-2-5 Salim, Roxanna Claremont Graduate University

Coauthors: Weekes

Do Appraisals Moderate the Relationship Between Stress and Memory?

Numerous studies have demonstrated stress affects memory functioning. However, stress is not only determined by the circumstances of the external environment but also by individual appraisals of these circumstances. While previous research has investigated the relationship between stress and memory, the relationship between stress, appraisals, and memory has yet to be observed. This study examines these relationships in 100 college undergraduates. Preliminary findings will be discussed.

Wednesday 29, 13:00-14:15	Miyabi	Regular Session
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R-WedPm-3-0	Nihei, Yoshiaki	Chair
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R-WedPm-3-1	Nee, Claire	University of Portsmouth, UK
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Coauthors: Meenaghan

Decision-making and expertise in burglars at the scene of the crime

Research on burglars at the scene of the crime has focused on target (property) selection. Only two studies to date, one in the US and our study in the UK, have looked at search strategies inside the property. After a brief review of cognitive processing and expertise in the target selection of burglars we will present data from 50 interviews with experienced burglars in the UK focusing on the initial decision to burgle, target selection and search strategies within the property. We discuss the implications of our findings in terms of primary and secondary crime prevention.

R-WedPm-3-2 Mansour, Jamal K. Queen's University

Coauthors: Lindsay, Bertrand, Kalmet, Whaley, & Munhall

Applied Lineup Theory: Testing the Competition-Corroborator Conceptualization

We tested the premises of Charman & Wells' (2007) Competition-Corroborator Conceptualization using a face recognition paradigm. Participants rated faces and then completed a surprise recognition task. In Experiment 1 (N = 18) we showed that, consistent with their position, greater opportunity to encode led to greater likelihood of recognition. In Experiment 2 (N = 144) we replicated our Experiment 1 findings and specifically tested the Competition-Corroborator Conceptualization. All main effects and the interaction of Memory Quality*Cue Type were significant. The interaction of Cue Type* Time Pressure was in the expected direction but not significant. Implications for the conceptualization are discussed.

R-WedPm-3-3 Kalmet, Natalie Queen's University

Coauthors: Stober, Mansour, Bertrand, Whaley, Beaudry, & Lindsay

Multiple Lineup Identifications: Examining Utility with Face-Only Lineups

The multiple lineup identification procedure may produce highly diagnostic identification evidence. Participants (n = 72) watched videos of targets. After each target video, participants were asked to state whether the target was present or absent from three face-only lineups. In each array, lineup members were shown facing one of the three key directions seen in the videos. Results indicate that overall, as the number of lineup identifications increase, so does the likelihood that the identified person is the target.

R-WedPm-3-4 Sato, Taku Tohoku University

Coauthors: Kikuchi, & Nihei

Linguistic cues for detecting deception: Morphological and content-based analysis

Methods of detecting lies in verbal communication can be divided into three approaches: (a) morphological analysis, (b) lexical semantic analysis, and (c) content-based analysis. In the present study, we compared the relative effectiveness of the three approaches. During the first experiment, participants were asked to describe a real or fictitious event. In the second experiment, participants were asked to repeat their description of a real or fictitious event three times. In the third experiment, participants were asked to revise an original statement to make it appear more credible. Results suggest that morphological analysis is an efficient method for detecting lies.

R-WedPm-3-5 Zarkadi, Theodora University of Warwick

Coauthors: Stewart, & Wade

Creating Fair Lineups for Suspects with Distinctive Features

In their descriptions, eyewitnesses often refer to a culprit's distinctive features. But, in a police line up, to select the only member with the distinctive feature is unfair to the suspect and increases the probability of a wrongful identification. To ensure that a suspect does not stand out in a lineup, the distinctive feature should be replicated across foils, removed from the face of the suspect, or pixilated. Testing these lineup techniques, this study revealed that replication increased the probability of identifying the target decreasing at the same time the probability of selecting an innocent foil or making no selection.

Wednesday 29, 13:00-14:15

Zuihou

Regular Session

R-WedPm-4-0 **Harada, Etsuko T.** **Chair**

R-WedPm-4-1 **Belli, Robert F.** University of Nebraska

Parallel Associations Populate the Structure of Autobiographical Knowledge

Current models concerning the structure of autobiographical knowledge lack clarity on the frequency of associations that exist among events that occur contemporaneously across different themes. A content analysis of audiotaped calendar survey interviews reveals that spontaneous parallel associations are common with a mean of 12 parallel associations per interview. Respondents draw parallel associations with educational, labor, and residential events while remembering their relationship histories, and remember educational, relationship, and residential events for their labor histories. This content analysis supports the notion that models need to deemphasize the existence of hierarchical structures to account for the common presence of parallel associations.

R-WedPm-4-2 **Bender, Michael** Tilburg University

Coauthors: Lachmann, Pohl, & Chasiotis

Empathic picture stimuli enhance autobiographical recall

In two studies, we investigated the relationship between empathic skills and autobiographical memory (AM). In Study 1, participants were presented with either empathy-inducing picture stimuli or control stimuli. Participants in an empathy-inducing context exhibited more empathy and better AM recall. In Study 2, a neutral and emotional condition were contrasted, revealing no differences between the conditions, which supports that findings in Study 1 can be attributed specifically to the empathy-inducing quality of pictures. These findings suggest an important but largely neglected link between empathy and AM: Individuals tap into their personal memories to exhibit empathy.

R-WedPm-4-3 **McIlwain, Doris** Macquarie University

Remembering feeling: Reflection and rumination as determinants of the valence of autobiographical memories

That we are ‘not just knowers but wanters’ has implications for remembering. Emotions determine selectivity of autobiographical memory from curiosity-driven appreciation of novelty (Ashby, Isen, & Turken, 1999; Frederickson, 1998), to the anxious mapping of recurring threats. The manner of attending to emotion powerfully shapes memory. Reflecting on feelings produces mood-incongruent memories, while ruminative focus produces mood-congruent recollections (McFarland & Buehler, 1997). Reflection and rumination are not equally well measured in psychological research (Trapnell & Campbell, 1997). Situating reflection in emotion theory (Lambie & Marcel, 2002), I offer results of a scale assessing reflection, with implications for depression and PTSD.

R-WedPm-4-4 **Shimajima, Yumi** Kyorin University

Time perspective and autobiographical memory: The effect of being conscious of death on episodic memory

In this study, the effect of death education, called Guided Death Experience (GDE), on episodic memory was examined. Fifty-eight participants in small groups discarded cards on which important belongings, names of loved people, favorite places, important goals, or important experiences were written, while listening to a story in which “you” or “the protagonist” is hypothetically dying. The ratings of three past events, three present events, three future events, death, and birth were compared before and after GDE. The effect of time perspective change by being conscious of “death” on episodic memory will be discussed.

R-WedPm-4-5 **Rasmussen, Anne S.** University of Aarhus

Personality Traits and the Directive, Self and Social Functions of Autobiographical Memory

Evidence suggests that autobiographical memory serves directive, self and social functions, but the relationship between the three functions and personality traits has not been examined systematically. In

two studies, participants answered questionnaires concerning the three functions, personality, time perspective and affect. Positive relationships between the directive function and Neuroticism, as well as between the social function and Extraversion, were found in Study 1, whereas the directive function was positively related to Negative Affect as well as Past Negative and Present Hedonistic time perspectives in Study 2. Openness was positively related to the directive and self-functions in both studies.

Wednesday 29, 13:00-14:15	Aoi	Regular Session
R-WedPm-5-0	Uesaka, Yuri	Chair

R-WedPm-5-1 **Manalo, Emmanuel** University of Auckland

Coauthors: Toyota, & Henning

A Comparison of University Students' Memory Use in New Zealand and Japan

This study investigated the kinds of relationships that may exist between [1] university students' reported memory use behaviors, [2] the aspects of their memory they most want to improve, [3] their beliefs and perceptions about the importance of learning outcomes in their studies, and [4] the learning and memory challenges they experience. Participants were undergraduate university students in national universities in New Zealand and Japan.

R-WedPm-5-2 **Crawford, Emily** University of Otago

Coauthors: Gross, Brown, & Hayne

Does drawing facilitate communication with adolescents?

Past research has shown that drawing enhances the amount of verbal information that young children report, compared to a verbal interview. The aim of the present experiment was to investigate whether drawing could be used to enhance the amount of information that adolescents report about emotionally significant events. Thirty 15- and 16-year olds drew and told, or simply told, about happy, proud/confident, angry, and worried/nervous emotional experiences. Drawing did not facilitate interviews with adolescents about emotionally significant events compared to telling. The implications of using drawing with adolescents within a clinical or forensic interview are discussed.

R-WedPm-5-3 **Takigawa, Shinya** Hokkaido University

Coauthors: Naka

Functions and characteristics of nostalgic memory

The purpose of this study was to identify the constituents of nostalgic feelings and to examine the functions of nostalgic memories. Study 1 was conducted to determine the constituents of nostalgic feelings associated with autobiographical memory and to establish a scale to measure nostalgic feelings. Factor analysis revealed three factors: positive feelings, relaxed feelings, and pathos. Study 2 aimed to clarify the functions of nostalgic memory. Undergraduates (19-28 years old) and older adults (65 years old or over) answered the questionnaire constructed in Study 1 and the Reminiscence Functions Scale (RFS) (Webster, 1993, 1997). We also studied the change of the functions of nostalgic memories over age.

R-WedPm-5-4 **Kawaguchi, Jun** Nagoya University

Coauthors: Kitagami

Where does the feeling of nostalgia come from? : Interaction of memory and the feeling of nostalgia

Reflecting on past events sometimes generates strong feelings of nostalgia. We investigate processes that might underlie the emergence of nostalgia. Retrieval of episodic memory appears to be related to nostalgia, but has not yet been investigated. The current study examined the influence of memory variables, (such as, accuracy of memory for past events, the years of interval of past events) upon the feeling of nostalgia. The results revealed a relation between the memory attributes and the strength of nostalgia. The processes to produce nostalgia are discussed.

R-WedPm-5-5 Morrison, Catriona M. University of Leeds

Coauthors: Conway, & Conneely

Memories of The Beatles

We report the results of an online survey of more than 4000 people's Beatles memories. The most popular song for generating memories was She Loves You; the most popular album was Sergeant Pepper's. The memories were generally very positive, except for those relating to Imagine and the death of John Lennon. Older adults' memories were no more emotionally intense than young adults'. We also found a classic reminiscence bump in the data. Memories were often described in great detail, pointing up the value of music, and The Beatles in particular, as a memory tool.

Wednesday 29, 13:00-14:15	Hagoromo	Regular Session
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R-WedPm-6-0	Naka, Makiko	Chair
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R-WedPm-6-1 Miwa, Tomoko Hokkaido University

Coauthors: Naka

Young children's narratives about emotionally laden events: What kind of information do they provide?

During the current study interviews were conducted to examine what kind of information young children provide about emotional events. Fifty kindergarteners and their parents participated in the study. First, parents were asked to provide details of two emotionally positive and negative events, that their children had experienced. Next, children were individually interviewed about the events. Furthermore, children were required to choose one positive and one negative event by themselves to talk about. When children did not provide any information during the free recall, direct questions were asked about the events. Even when children did not provide information spontaneously, they were able to answer the direct questions.

R-WedPm-6-2 Roos af Hjelmsater, Emma University of Gothenburg

Coauthors: Granhag, & Strömwall

Was the stranger alone? On how different sources of social influence affect children's memory reports

Children (11-12 years, N = 176) were interviewed about a personally experienced interaction with a stranger. Before the interview, they received social influence from another witness (adult or child), who either suggested that (a) a person who was present during the event had actually not been present, or (b) a non-present person had actually been present. This resulted in both commission and omission errors in the children's reports. The children who had seen the person (vs. those who had not) provided more details about him. In a target-absent lineup, 87 % of the children identified a foil.

R-WedPm-6-3 Howie, Pauline University of Sydney

Coauthors: Kurukulasuriya, & Nash

Children's recall of events: The impact of delay, age and question format on accuracy and consistency when questions are repeated

This study examined (a) the impact of age, question format and delay since encoding on children's recall, suggestibility and shifting to repeated questions, and (b) timing of repetition within the recall interview. Preschoolers and first graders participated in an activity and were interviewed one or three weeks later, with repeated questions either interspersed throughout the interview or in a block at the end. Correct recall increased with age and decreased across time. Overall, shifting was not affected by the timing of repeated questions or time since encoding, but preliminary analysis suggests that interspersed repetition may reduce preschoolers' risk of shifting at the shorter delay. Forensic implications are considered.

R-WedPm-6-4 Matsuda, Emi Hokkaido University

Coauthors: Naka

What is method of interviewing the most effective to facilitate children's verbal report

This study investigates which interviewing method is most effective to facilitate children's verbal report. Procedure is as follows. Participants are 4~12 year's old children who are cared at child care center. Material is a puppet play on DVD. Each child watches DVD and is interviewed about contents of DVD individually an experimenter at a room in the child care center. There are three different interviewing conditions. The interview conditions are, : verbal, in which they were simply asked to tell ; doll, in which they were asked to use puppets and tell ; drawing, in which they were asked to draw and tell.

R-WedPm-6-5 Withdrawn

Wednesday 29, 14:45-16:00	Saga	Regular Session
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R-WedPm-11-0 **Lindsay, Stephen** **Chair**

R-WedPm-11-1 **Horry, Ruth** University of Sussex

Coauthors: Wright, & Tredoux

Memory for context in own- and other-race identifications

Face recognition is less likely to be accurate when an observer identifies a person of another race than a person of their own race. In real world identifications, it is often crucial to be able to remember contextual information about the previous occurrence of a face. A series of studies will be presented which show that both White and Black participants are more accurate at identifying the context in which own-race faces are encoded than other-race faces. Potential mechanisms for the effect, including dual-process memory and differing cognitive demand, are explored.

R-WedPm-11-2 **Melnyk, Laura** King's University College at the University of Western Ontario

Coauthors: Lucyk, & Gribble

Accuracy for estimating age, height and weight

A witness's description of a suspect can be a critical initial step in a criminal investigation. We had 122 adult "raters" (with varying ages, heights and weights) view 40 models (also across a range of ages, heights and weights) and estimate each model's age, height and weight. First, we assessed the accuracy of the estimates, defined as within 5% of the true value. Height was the most accurately estimated variable (72% accurate), compared with accurate estimates for 30% of weight and 25% of age estimates. Second, we found that estimate accuracy was systematically related to the raters' own characteristics.

R-WedPm-11-3 **Takahashi, Masanobu** University of the Sacred Heart

Coauthors: Kawaguchi, & Kitagami

Recognition memory for cars and identification of location

We investigated how accurately people can remember the locations in which the cars were present. Participants were shown each of 10 photographs of cars, of which 5 were in one location and 5 in another location. In the two-alternative forced-choice recognition test, they were shown 20 photographs of cars, displayed in pairs. Immediately after that, two-alternative forced-choice test for the location, in which each of the target cars had initially appeared, was administered. The results showed that people recognize cars much better than they remember where the cars were encountered. These results are discussed in terms of source monitoring framework.

R-WedPm-11-4 **Gehrke, Juergen** University of Leicester

Coauthors: Lansdale

The contribution of eye-movements to picture database design

In large picture databases it can be challenging to retrieve a picture without knowing exactly what the viewer is looking for. One approach to facilitate the retrieval of pictures is to measure eye-movements or scanpath similarity. In two experiments, one with immediate repetition and one with a delay of five minutes, participants saw a picture twice and were either asked to replicate their scanpath from the first viewing in the second viewing or look at the picture twice. LD was lower for the replication condition

compared to the viewing condition in experiment 1. This difference disappears in experiment 2.

R-WedPm-11-5 **Nihei, Yoshiaki** Tohoku University

Coauthors: Sato

The overly suspicious person is easily deceived: The Moses illusion and paranoid tendencies

Persons with a suspicious nature are not easily deceived. To test this assumption, we investigated the relationship between responses to the Moses illusion task, a type of trick question, and paranoid tendencies. One hundred undergraduates completed the Moses illusion tasks and filled out the Paranoia Checklist. The mean score of the paranoia checklist was significantly lower for participants who noticed the trick than for the participants who did not. Contrary to our original hypothesis, these results indicate that overly suspicious persons are rather easily deceived because they appear to form premature conclusions based on partial information without first searching for further details.

Wednesday 29, 14:45-16:00

Kuretake

Regular Session

R-WedPm-12-0

Belli, Robert F.

Chair

R-WedPm-12-1

Logan, Jessica M.

Rice University

Coauthors: Halcomb, & Meyer

Making The Most of Study Time in a Face-Name Learning Paradigm

When learning names, should one invest more time studying information on first exposure or revisit the information in several quicker repetitions over time? We investigated the role of exposure time versus repetition in a face-name learning paradigm in younger and older adults. Participants studied faces and names either once, twice, or four times for 4s, 8s, or 16s. For younger adults, repetition had the largest benefits on recall, such that the four presentation condition yielded the best performance. Older adults also performed best in the four presentation condition, but showed larger benefits for increasing exposure time compared to younger adults.

R-WedPm-12-2

Nittono, Hiroshi

Hiroshima University

Coauthors: Kasejima

Assessing video game players' state of attention by brain potentials

The probe stimulus method has been used to assess mental workload or a person's allocation of attention toward a task. This method works by measuring reaction times or brain potentials for probe stimuli that are irrelevant to the main task. Here, we introduce a new probe stimulus method using somatosensory event-related potentials. Two experiments using Nintendo Wii and Tetris showed that the N140 component elicited by unattended vibratory stimuli was reduced in amplitude when participants were playing video games. This method is less obtrusive than traditional methods and useful for assessing a person's state of attention during an audio-visual experience.

R-WedPm-12-3

Sasaki, Takashi

Keio University

The role of the central executive in the semantic priming effect

The purpose of this study was to investigate the role of the central executive in the semantic priming effect. Thirteen participants performed the lexical decision task with the random number generation (RNG). The RTs in the related condition were faster than the unrelated and the error rates were lower. Furthermore, the RTs in RNG condition were slower than the control and the error rates were higher. However, the effect of RNG did not differ across conditions of word relatedness and stimulus onset asynchrony (SOA). This result suggests that the central executive does not have a crucial role in semantic priming effect.

R-WedPm-12-4

Hayashi, Mitsuko

Tokyo University of Social Welfare

A trial of hypermnesia in older adults using a doodle recognition task

This study investigated hypermnesia in older adults using a labeled doodle recognition task. Twelve

older adults (mean age 67.75) participated in the experiment, during which they engaged in recognition tests three times after having studied 30 pairs of labeled doodles. During the tests, participants were shown a doodle and were required to select the one that was paired with it during the study phase from a list of exemplar doodles. The results indicated that no hypermnesia was present in older adults. The results will be compared with those of similar experiments in which younger adults took part (Hayashi & Une, 2004).

R-WedPm-12-5 **Cook, Gabriel I.** Claremont McKenna College

Coauthors: Merritt, & Lyle

Judgments of Learning Source: How Accurate are Predictions about Learning Contextual Attributes of an Encoding Experience?

Participants studied English words, predicted their future memory for the words and their sources, and then performed a source-memory test. We investigated whether the variables that affect JOLs (e.g., immediate vs. delayed judgments; word frequency, etc.) also affect JOSLs (judgments of source learning) in similar ways and if the cognitive processes involved in making JOLs on words and JOLs for source (e.g., location) affected later source-memory performance. Preliminary data suggest that the mechanisms responsible for influencing JOLs can also influence JOSLs; that relationship can be influenced by other learning variables.

Wednesday 29, 14:45-16:00	Miyabi	Regular Session
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R-WedPm-13-0	Powell, Martine	Chair
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R-WedPm-13-1	Withdrawn	
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R-WedPm-13-2 **Liikkanen, Lassi A.** Helsinki Institute for Information Technology HIIT

Coauthors: Paakkonen

Are involuntary musical memories special?

Involuntary memories are an interesting new topic in psychological research, but have this not considered musical memories. We propose involuntary musical imagery (INMI), the phenomenon of experiencing music in the absence of external stimulus, as a new branch to this research area. We have recently gathered data about INMI using heterogeneous methodology involving thousands of people, trying to connect musical memories to the involuntary memory studies. It is surprisingly common and often triggered by identifiable events. Based on the accumulated number of results, we propose that INMI is a distinct category of involuntary memories, falling between semantic and autobiographical ones.

R-WedPm-13-3 **Ito, Hiroshi** Nagoya University

Coauthors: Saito, Oi, & Li

Activities in the prefrontal and parietal cortices are modulated by preparation of imitation. A near-infrared spectroscopy study

We used 48-channel near-infrared spectroscopy to investigate brain activity during the observation and imitation of sequentially presented meaningless postures. The participants' task was to observe nine sequentially-presented meaningless postures depicted with three dimensional computer graphics, after which the participants were to observe the same postures and to imitate them with observers moving their limbs. The sequence varied in terms of movements (still pictures and animation conditions) functioning during the changes in neighboring postures. We will discuss the preparatory activities of the prefrontal and parietal cortices preceding the imitation of postures.

R-WedPm-13-4 **Shimizu, Takayuki** Aisin Cosmos R&D Co., Ltd.

Coauthors: Saito, Ito, Oi, Li, & Meng

Cortical activities during the mental rotation of hand and letter as measured by near-infrared spectroscopy

It has been reported that the reaction time in the mental rotation task is as a function of the rotation angle of object except hand figure due to the biomechanical constraint (Sekiyama, 1982). To examine the cortical areas involved in the biomechanical constraint in the mental rotation task, using 48 channel near-infrared spectroscopy, we measured the cortical activation in 9 right-handed students and while they participated in the mental rotation task of hand. The results showed that the concentration changes in oxy-Hb varied on not only the rotation angle of hand but also the biomechanical constraint of hand.

R-WedPm-13-5 **Saito, Hirofumi** Nagoya University

Coauthors: Kita, Ito, Oi, & Li

Cortical activities during gesture generation as measured by near-infrared spectroscopy: Object manipulation (“character-viewpoint”) gesture versus object representation (“observer-viewpoint”) gesture

Using near-infrared spectroscopy, we measured cortical activations while subjects observed a picture of an object (e.g., ball) and generated hand-gesture with the right or left hand under two conditions: Action (as if to manipulate the object), or Motion (the hand represents object movement). When using the right hand, the change in the oxyHb level was significantly larger in Motion than Action in the left hemisphere, but not in the right hemisphere. When using the left hand, the conditions did not significantly differ in either hemisphere. The results suggest that generation of gestures needs more mental efforts in Motion than Action.

Wednesday 29, 14:45-16:00	Zuihou	Regular Session
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R-WedPm-14-0 **Pezdek, Kathy** **Chair**

R-WedPm-14-1 **Blandon-Gitlin, Iris** California State University, Fullerton

Coauthors: Pezdek

Event Plausibility Affects Autobiographical Beliefs, but Plausible to Whom?

Three studies investigated the effect of perceived event plausibility on autobiographical beliefs. In Study 1, community members reported it implausible to have personally forgotten memories of childhood sexual abuse. In Study 2, the perceived cohort plausibility of an event influenced autobiographical beliefs more than the perceived general plausibility. In Study 3, increases in false beliefs were higher when imagining a personally plausible but not an implausible event. These results suggest that false memories are less likely for personally implausible events, and because forgotten memory of childhood sexual abuse is an implausible event, the probability of a false memory for this event is low.

R-WedPm-14-2 **Uzer, Tugba** University of Alberta

Coauthors: Lee, & Brown

On the Prevalence of Direct Retrieval in Autobiographical Memory

Three experiments investigated the prevalence of multiple strategies (direct vs. generative retrieval) in the recollection of personal memories. In Experiment 1, participants retrieved memories to concrete nouns and emotion words while providing concurrent verbal protocols. In Experiments 2 and 3, participants were timed as they responded to the cue words; they also reported their retrieval strategy on each trial. In all three experiments concrete and emotional cues elicited both directly retrieved and generated memories. We demonstrate that directly retrieved memories are typically more common than generated retrievals - arguing against generation as the canonical form of retrieval for autobiographical memories.

R-WedPm-14-3 **Ikeda, Kazuhiro** Tohoku University

Coauthors: Nihei

The effect of biased retelling and biased rewriting on autobiographical memory.

We investigated the effect of positive retelling/rewriting on negative autobiographical memory. We asked 46 undergraduates to recall a traumatic memory and rate the negativity. One half of them retold their memory, and the other half rewrote it. In each retelling and rewriting condition, half of the participants

simply repeated the retelling/rewriting and the other half converted their retellings/rewriting to be positive. All the participants repeated the retelling/rewriting twice with a week interval. At the final phase, the participants recalled their memory as it was and rated the negativity again. The results showed that the positive retelling/rewriting reduced the negativity of the autobiographical memory. The effect of positive rewriting was statistically larger than positive retelling.

R-WedPm-14-4 **Miles, Amanda N.** University of Aarhus

Coauthors: Berntsen

Sensory Modality Cuing in Autobiographical Memory: The Proust Phenomenon Revisited

This work examined sensory modality cuing in autobiographical memory, while taking possible effects of temporal distance into account. We use a 2 (temporal distance) X 4 (sensory modality- word cue, visual, auditory, and olfactory) within subjects design. Each participant is presented with objects represented across the various cue types in both two temporal conditions. Based on previous work showing that memories evoked by olfactory cues exhibit a greater sense of re-experiencing than their visual and auditory counterparts, we expect the phenomenological clarity of odor cued memories to decrease less with temporal distance than memories triggered by other sensory modality cues.

R-WedPm-14-5 **Lee, Peter J.** University of Alberta

Coauthors: Brown

A Period Perception Account Of Forward Telescoping For Event Date Estimates

This research investigated the role of period judgments in telescoping biases. First participants provided period judgments for 60 news events by selecting temporal periods from a bounded timeline. Next, they provided year estimates for each event. Results indicated that when period judgments accurately capture the true event date telescoping biases were small. However, period judgments were frequently inaccurate and the primary source of bias was due to the forward telescoping of entire periods, suggesting that understanding memory for periods is essential for explaining forward telescoping. We present a model of memory predicated on temporal components and discuss its theoretical implications.

Wednesday 29, 14:45-16:00	Aoi	Regular Session
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R-WedPm-15-0	Toglia, Mike	Chair
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R-WedPm-15-1 **Mendoza, Kevin** John Jay College of Criminal Justice

Puerto Rico's prison structure and its gangs

The purpose of this paper is to learn how the penal system works in Puerto Rico. This paper will focus on two major aspects of the penal system that are very important to better understand how things are inside prisons in Puerto Rico. The first major aspect is the structure of the prisons. Structure of the prison is primarily the classification of the prisoner, the objective of the correctional system, security, discipline, culture, economic system and other aspects. The second major aspect will focus on the gangs that are inside prisons of Puerto Rico. It will discuss when the gangs were organized, the number of existing gang, the effects that these gangs have inside prisons, the most powerful gangs and their living code.

R-WedPm-15-2 **Lepe Garza, Alberto** Nagoya University

Coauthors: Saito, Oi, Ito, & Li

Hands occlusion in the imitation of meaningless gestures

To investigate whether “hands occlusion” (without watching our own hands) affects the imitation of meaningless gestures, we investigated the error rates using a 17” monitor, a 50” monitor and a video eyewear device (perceived: 32”) Each participant imitated online 35 meaningless gestures. The results showed that the Eyewear condition produced a higher error rate than the average error rate of the 17” and the 50” conditions. To test the “hands occlusion” effect, 2-handed gestures were categorized as touching-fingers and non-touching-fingers gestures. The Eyewear produced a low error rate in the touching-fingers gestures, showing no evidence of a “hands occlusion” effect.

R-WedPm-15-3 **Li, Zongfeng** Nagoya University

Coauthors: Saito, Ito, & Oi

Why does hands restriction in the animation narration task affect gesture production in the successive recall of narration under hands-free condition?

To examine function of two types of co-speech gestures (representational gesture and beat), we conducted an animation narration task (to observe an animation and narrate the content), and then a narration recall task (to recall their narratives and narrate it again). We divided participants into two groups (hands free vs. restricted) in the narration task, and analyzed gesture frequency per speech (minutes). The results showed that the frequency of representational gestures in the restricted groups was lower than that in the free groups in the recall task, while the frequency of beat was same between the two groups.

R-WedPm-15-4 **Janssen, Steve M. J.** Duke University

Coauthors: Rubin

Age Effects in Life Scripts

Life scripts are culturally shared expectations about the timing of life events in an idealized life course, which are used to process life stories. One critical property of the life scripts account is that they are transmitted by tradition. In this online study Dutch participants were asked to imagine an ordinary infant and to name the seven most important events that were likely to take place in the rest of the life of this prototypical infant. We found that the life script was similar for young, middle-aged and older adults, supporting the assumption that life scripts are culturally transmitted.

R-WedPm-15-5 **Bohn, Annette** Aarhus University

Generational Differences in Cultural Life Scripts and Life Story Memories of Younger and Older Danish Adults

Cultural life scripts (CLS) and the seven most important life story memories were collected in younger and older Danes, and rated on valence. Scales on depression, satisfaction with life, and the Centrality of Event Scale (CES) were administered. CLS were relatively stable across generations. Older participants had more realistic, less idealized CLS. CES scores correlated negatively with life satisfaction, and, in older participants, with life story typicality. Only in younger participants, the CES and number of negative events in the life story correlated with depression. Overlap between CLS events and recall of important life story memories increased with age.

Wednesday 29, 14:45-16:00

Hagoromo

Regular Session

R-WedPm-16-0

Read, Don

Chair

R-WedPm-16-1

Kurita, Satoko

Indiana University, Bloomington

Coauthors: Gao, Lang, Lee, & Wang

Dimension of Attention: Media structure, content, cognitive load & overload

This study investigated how various combinations of information introduced by a camera change affect the cognitive load of audience during TV viewing. Recent research from a perspective of the limited capacity model of mediated message processing (LC4MP; e.g. Lang, 2006) has found two global characteristics of visual information affect viewers' information processing; the number of camera changes per second and information introduced by a camera change per second. This study extended the previous work by focusing on local aspects of the information introduced measure. 98 college students participated in the experiment. STRT during viewing was employed to measure available resources and visual recognition was administered.

R-WedPm-16-2

Shiraishi, Hiroaki

Hokkaido University

Coauthors: Naka

Making the Cognitive Interview Automatic?: The development of an Interactive Interview System

The cognitive interview is highly effective but it is known to take time to train skilled interviewers. As an alternative to training human interviewers, we developed an automated computer interviewer. The automated agent nods when detecting the interviewees' voice with the purpose of making the interviewee feel comfortable. In order to evaluate the effectiveness of the agent, an experimental study was conducted to examine whether the automated agent elicits similar information in comparison to a human interviewer. Results confirmed that the information elicited was comparable.

R-WedPm-16-3 Withdrawn

R-WedPm-16-4 **Conway, Martin A.** University of Leeds, England

Coauthors: Morrison

SenseCam: The Future of Memory Research?

SenseCam is a new neck-worn camera from Microsoft. It takes colour photographs automatically in response to sensory changes. A typical 2h everyday event it may upwards of 200 photographs. Later these can be viewed in a few minutes. SenseCam pictures are hugely powerful cues to remembering and induce what I call "Proustian moments". I describe the use of SC with normal and brain damaged patients, evaluate its potential for memory research, and describe how it has these remarkable memory effects.

R-WedPm-16-5 **Chung, C. F. Bell** University of Hong Kong

Race bias and lineup in eyewitness identification

Globalization makes cross-racial identification more frequent than ever before. The present research studies the Own-race Bias (ORB) effect in eyewitness identification by using Sequential and Simultaneous lineups. Chinese subjects were tested with Chinese and Caucasian targets under different conditions. They perform significantly better in own-race faces and the ORB effect is confirmed. A significant interaction between race and lineup is detected. Prominent ORB effect is only found in Sequential lineup, probably due to the operation of absolute judgment process. The results further show that Sequential lineup is better for own-race identification, whereas Simultaneous lineup is better for cross-race.

Poster Sessions

Tuesday 28, 12:00-13:00

Higashiyama

Poster Session AM

P-TueAm-01 **Worth, Eleri Rhian** Swansea University

Coauthors: Reppa, & Saunders

Memory for Actions

Previous research has suggested a role for inhibitory processes in memory (Anderson, Bjork, & Bjork, 1994), and has been implicated in memory for photographs of novel actions (Koutstaal, Schacter, Johnson, & Galluccio, 1999). The current study examines whether inhibitory mechanisms play a role in memory for actions using a retrieval practice paradigm. In two experiments, participants were asked to perform actions or observe actions being performed. Evidence of facilitation was found for performed and observed actions; whereas inhibition was found for performed actions only; suggesting that inhibitory processes are involved and that performing self-generated actions gives rise to retrieval-induced forgetting.

P-TueAm-03 **Kobayashi, Masanori** The University of Tokyo

Coauthors: Tanno

The Effect of Distraction Strategy in relation to Memory Suppression in Think/No-Think Task.

Previous studies have indicated that individuals can suppress their memory intentionally. In the current study we examined whether a distraction strategy was effective for memory suppression in a

Think/No-Think task (Anderson & Green, 2001). Thirty-four participants learned noun pairs (cue-target). Next, in response to cues, participants responded with some targets and suppressed other targets each 12 times. During suppression, participants in the distraction condition (N=17) used a distraction strategy to think of a nonverbal image (control condition (N=17) did not use a distraction strategy). Finally, all participants took a cue-recall test. The results showed that only control condition participants suppressed targets. It suggests that the distraction strategy is ineffective for memory suppression.

P-TueAm-05 **Mukai, Akira** Takamatsu University

False Recall for People's Names in the Deese-Roediger-McDermott Paradigm

This study investigated whether encoding manipulations aimed at making source monitoring of critical lures difficult could alter the levels of false recall for people's names used as lures in the Deese-Roediger-McDermott (DRM) paradigm. The results demonstrate that most manipulations failed to increase false recall. This may be because manipulations attenuated semantic encoding around the lures, and consequently lowered their activation levels. Meanwhile, manipulations which disguised the nature of the list organization hindered the decrease of false recall. The question of why false recall for people's names was rarely elicited in general is discussed.

P-TueAm-07 **Kotozaki, Yuka** Japan Advanced Institute of Science and Technology

The effects of personality traits and subjective well-being on affective aspects of autobiographical memory

This study reports correlation analyses between autobiographical memory and personality characteristics including subjective well-being (SWB). Undergraduates (n=54) were asked to recall a series of autobiographical episodes and rate each episode for emotional valence at the time they were experienced. Emotional valence, along with other variables obtained via these methods were analyzed by calculating their correlations with the 'Big Five' personality traits (Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness). Regression analyses revealed that affective aspects of autobiographical memory were correlated with Neuroticism, Extraversion, and Agreeableness, but not with SWB.

P-TueAm-09 **Williams, Sophie** Swansea University

Coauthors: Saunders, & Alfieri

Retrieval-induced forgetting in memory for odors

Memory for hard-to-describe sensory information can be impaired following attempts to describe it (verbal overshadowing), whereas related research indicates that it is non-described information that is drawn from the described category that is subject to impairment (retrieval-induced forgetting). Memory impairment was, therefore, examined for memory for odours. Recognition for non-described scents from the described category was impaired compared to the no description participants (i.e., retrieval-induced forgetting). Item-specific processing of odours at study was also found to abolish retrieval-induced forgetting, and retrieval-induced forgetting of odours was found to occur in male and female participants.

P-TueAm-11 **Amemiya, Yuri** University of Tokyo

Coauthors: Taka

The effect of retrieval intention on specificity and retrieval process of autobiographical memory

This study examined the effects of voluntary and involuntary autobiographical memory retrieval processes upon levels of specificity for recalled autobiographical events. Participants were assigned to either the voluntary recall condition (n=124) in which they were asked to recall their autobiographical episodes under a cued-word method or an involuntary recall condition (n=208) whereby episodes were retrieved involuntarily through the word impression rating tasks (Involuntary Recall Condition). The same cue and task words were used within both conditions. Our findings show that participants within the voluntary recall condition tended to retrieve more specific events than those who recalled in the involuntary condition.

P-TueAm-13 **Shigemori, Masayoshi** Railway Technical Research Institute

Error prevention effect of memory of a post error

In order to verify effect of memory of a post error on performance in other similar tasks, the author conducted 2 experimental sessions at weekly intervals, both of which asked participants to transcribe numbers or pronunciations of kanji characters. After the second session, the participants were asked whether they remembered the first session just prior to the second session. The error ratios, which were divided into 2 x 2 groups depending on performance accuracy and presence of remembrance of the first session, were compared. The results suggest that remembrance and experience of an error prevents another similar errors.

P-TueAm-15 **Miyazawa, Shiho** Shokei Gakuin University

Coauthors: Iwasaki

Does emotion reduce the attentional blink?

In this study, we investigated the effect of emotional valence on the reduction of the attentional blink (AB). In contrast to previous research showing that a task-relevant positive stimulus (happy face) reduced the AB effect (Mack, Pappas, Silverman, & Gay, 2002), the results of this study suggest that presentation of task-irrelevant negative stimulus (angry face) also reduces the AB effect. The reduction of the AB effect with an angry face involves processing of emotional rather than featural information.

P-TueAm-17 **Finnbogadottir, Hildur** University of Aarhus

Coauthors: Berntsen

Mental time travel in high and low worriers

While there is evidence for a relationship between overgeneral autobiographical memory (OGM) and rumination, as yet, no study has examined OGM in relation to trait worry. The current project employs a 2 (low vs. high worry) x 2 (voluntary vs. involuntary) x 2 (future vs. past) mixed design to explore autobiographical memory specificity in relation to trait worry. Using a diary method, undergraduates, identified as high or low worriers, register autobiographical memories and future event representations. It is expected that mental representations reported by high worriers will be less specific than those reported by low worriers.

P-TueAm-19 **Akimoto, Yoritaka** Tohoku University

The effect of cognitive load on the perception of irony.

Using a manipulation of shared common ground (CG) between a speaker and a listener, effects of cognitive load on irony comprehension were explored. In the low-CG condition, unlike in the high-CG condition, cognitive load increased the degree of perceived irony and decreased the reaction time of an irony judgment. These results show that participants failed to inhibit the unintended ironical meaning because they were unable to consider common ground under cognitive load. It is suggested that the perception of irony occurs before considering common ground and therefore understanding of unintended irony might happen. This is one cause for miscommunication.

P-TueAm-21 **Ojima, Yukari** Nagoya University

Coauthors: Kanayama, Ohira, & Mizuta

The investigation of automatic and controlled process in semantic priming: An ERP study

Automatic and controlled processes, spreading activation and expectancy, in semantic priming during a lexical decision task were investigated by measuring event-related potentials and manipulating the stimulus-onset asynchrony. For prime-onset ERP, we observed positive and negative components in the 200–300 ms and 350–450 ms intervals and the later positive component in the 450–650 ms interval. On the first two components, significant differences were found between semantic and nonsemantic prime in short and long SOAs, suggesting that the components reflect spreading activation. The later positive component for semantic prime only in long SOA suggests that this component reflects expectancy.

P-TueAm-23 **Mochizuki, Masaya** Nihon University

Coauthors: Naito

Applying Pathfinder network scaling to illustrate memory representation of procedural text

In this research, Pathfinder analysis was employed to illustration of procedural text representation. Thirty-two participants learned the LEGO assembly from the text in either ‘read and perform’ condition or ‘read only’ condition. Then, they rated the relatedness of each sentences and assembled the LEGO. Results showed that participants in read-and-perform condition well understood the assembly. In Pathfinder analysis, however, network of read-only condition had more coherent representation. These results suggested that Pathfinder analysis is appropriate for illustrating of text-based representation that read-only condition formed. However, it is necessary to improve Pathfinder analysis more to illustrate representation of ‘procedure comprehension’.

P-TueAm-25 **MacLeod, Malcolm D.** Swansea University

Coauthors: Saunders

The effect of ageing on inhibitory processes

Previous research has suggested that retrieval-induced forgetting is still in tact in older adults which throws doubt on the relationship between temporary forgetting and inhibitory processes. The current experiment tested the hypothesis that older adults’ retrieval-induced forgetting effect is due to noninhibitory processes operating at recall which produces a pattern of recall which resembles retrieval-induced forgetting. Specifically, it is suggested that older adults’ pattern of recall is due to output interference operating at final recall and not due to inhibitory processes operating at retrieval practice. Conversely, younger adults’ pattern of recall is due to inhibitory processes operating during retrieval practice.

P-TueAm-27 **Ueno, Daisuke** Osaka University

Coauthors: Masumoto, Kurokawa, Gondo, & Fujita

Thought suppression effect on emotional memory in older adults

This study examined the correlation between thought suppression and emotional memory in older adults. The participants were 49 older adults who were divided into 25 younger adults and into 24 older adults by 70 years old. 15 paired non-emotional words and emotional pictures from emotional positive, negative, and neutral condition were presented during learning session, before free-recall session. Thought suppression was measured by questionnaire. Positive correlation between thought suppression and number of recalled words on positive condition was observed in younger adult. Results suggest that function of thought suppression is not remained in older adults, but in younger adults.

P-TueAm-29 **Kurazumi, Tomoe** University of Tsukuba

Coauthors: Sakurai

How do students cognize their reasons for why they do not study?

The purpose of this study was to develop a ‘Measure of the Reason Not to Study’ (MRNS) and to examine the effects of the MRNS on students’ study time. Our MRNS was constructed with 9 factors; (1) negative cognition of task, (2) low value on studying, (3) busyness, (4) resistance against adults’ control, (5) high understanding of task, (6) bad academic environment, (7) fascination with other activities, (8) negative evaluation from friends and (9) unknown methods of studying. Following regression analysis our findings suggest that (5) high understanding of task, (7) fascination with other activities and (9) unknown methods of studying contribute towards why students cognize their reasons for not studying.

P-TueAm-31 **Fernandes, Marcelle** Swansea University

Coauthors: Saunders

Retrieval-induced forgetting and impression formation

Retrieval alters memory not only by increasing the availability of retrieved information but also by

impairing other information associated with the same cues, an effect known as retrieval-induced forgetting (RIF). Two experiments explore the role of RIF in maintaining and modifying impressions; specifically, whether RIF of valence could modify honesty ratings. Results show that positive and negative characteristics are subject to RIF. However, while overall findings suggest that retrieval-induced forgetting of valence does occur, it does not significantly alter the affective impression of that person.

P-TueAm-33 **Watamura, Eiichiro** The University of Tokyo

Coauthors: Wakebe, Tsuneoka, & Takano

Can laypeople decide punishment severity independently of irrelevant information?

Across two experiments we tested whether laypeople could make informed decisions regarding punishment severity, by disregarding irrelevant information concerning the severity of the crime in question. Experiment 1 showed that participants exposed to irrelevant information (e.g., “The victim’s family met with a traffic accident” or “The offender received more money by chance”) assigned longer criminal sentences. Experiment 2 showed that by interchanging the terms “the victim’s family” and “the offender” within the irrelevant sentences, contrasting results were found. Our findings suggest that laypeople’s judgments can be influenced by irrelevant information and moreover that they are unaware of the influence of this information.

P-TueAm-35 **Kageyama, Nozomu** Kyushu University

Coauthors: Ozawa, & Hakoda

The effects of acute environmental change on cognitive dysfunction in a hyperbaric environment

We examined the interaction of an acute environmental change with the size of environmental pressure using a Stroop interference task. This was measured over 3 phases (1) Compression: acute environmental changes; (2) Stay at the maximum environmental pressure: no change; (3) Decompression: moderate change, throughout simulated 45ATA deep sea diving. Six professional male divers participated. Our findings showed that the amount of Stroop interference within Phase 1(Compression) increased in proportion to the size of environmental pressure. These changes did not occur during the other phases. We suggest that the acute environmental change, rather than the size of environmental pressure, causes cognitive dysfunction in hyperbaric environments.

P-TueAm-37 **Yaguchi, Yukiyasu** Hosei University

How is the modality character of Onomatopoeia recognized?

In this research, the modality character of Onomatopoeia was examined by a modality differential method. Participants were requested to evaluate how Onomatopoeia of 47 words relate to 5 senses. And Onomatopoeia was classified by the cluster analysis. Result of analysis, five clusters were extracted. And its related to the modality of sight, aural, taste, smell, and touch. Moreover, some words are evaluated to relate to more modalities. From these results, the following two points were shown. One is the modality character of Onomatopoeia can be classified into five. Another one is some Onomatopoeia relate to two or more modalities.

P-TueAm-39 **Vermeulen, Nicolas** University of Louvain

Coauthors: Olivier

Intentional Memory Incurs Modal Costs

We found that the intentional memory of concepts related to a visual modality (e.g., Squirrel) or to an auditory modality (e.g., Song) is hindered more by perceptual short-term memory load in the same than in a different modality as that represented by the to-be-memorized concept. Semantic interferences do not naturally account for this finding because we manipulated load by charging participants with meaningless stimuli. We suggest that people spontaneously access sensory attributes of concepts when trying to memorize them, and that this comes with modal costs. We discuss the present finding in the broader context of modal models of knowledge.

P-TueAm-41 **Ueno, Makoto** Hosei University

Effects of mismatch of gaze and face on face recognition

This experiment examined the relation between match and mismatch of direction of gaze and direction of face in the context of face recognition. There were four conditions of experiment in which either matched or mismatched direction of gaze and face in the learning and test phases. Each condition had 20 participants. So the experiment was a between-subjects model with 80 participants. The rate of correct choice was used as the dependent variable. As a result, there were significant differences in the rate of correct choice between match and mismatch conditions.

P-TueAm-43 **Itoh, Mariko** University of Tsukuba

Coauthors: Kawasaki

Examining the effects of thoughts during the performance of actions on feelings of voluntariness and memory

When performing actions, people are sometimes aware that the action was carried out, whereas at other times they just have a feeling that the action occurred. In the current study, participants were asked to either 'perform' or 'not perform' a series of simple actions (e.g., "rub your chin"). During each trial participants were presented with an action sentence where they were asked to either (1) read the sentence aloud and thereafter perform the same action, (2) read the sentence aloud and perform a different action, or (3) only read the sentence aloud. Our findings showed that performing a different action resulted in induced reports of voluntariness as compared to performing the same action, but did not affect recognition memory performance.

P-TueAm-45 **Harada, Eriko** Hosei University

Coauthors: Watanabe

Social Skills Education Aiming at Change of Cognition of Self-Esteem

The purpose of this study was to examine the effects of social skills training (SSGRIN-A) on social skills and self-esteem of high school students. This program was designed to focus on the cognition of emotions. Ten sessions were included in this program to systematically teach and build specific social skills. Especially some sessions were intended to control emotions and to enhance self-esteem so that students could become more aware of their emotions. The Social Skills Scale, Self-Esteem Scale and behavioral observation were used as assessments both at pre-test and post-test. Results showed more pro-social skills and less aggressive behaviors in the SSGRIN-A group.

P-TueAm-47 **Czaplewska, Ewa** University of Gdańsk; Poland

Coauthors: Kaczorowska-Bray

Spatial orientation among 3- to 8-year old children

This research study involved the participation of 1054 children of both sexes, resident in villages, towns and cities of Poland. The basic tool was: 'Experiments for researching spatial orientation,' specially constructed for this study. The obtained results made evident that the development of spatial orientation is closely linked to the development of decentrism and follows the following stages: 1. recognition of one's own body concept and the ability to draw directions in space from one's own body, 2. the ability to transmit one's body concept onto another person while simultaneously informing of this, 3. the ability to transmit the body concept onto another object – a piece of paper and spatial orientation on that paper. The study results make clear that the development of spatial orientation is connected with the development of operational thinking. During the study, no significant differences between the results of boys and girls were noted. However, there were notable differences between the results of residents of small towns and those of big cities.

P-TueAm-49 **Okazaki, Yoshihiro** Fukuyama University

Coauthors: Matsuda

Working Memory and time duration judgments in undergraduate students

We investigated the relationship between time duration judgments and working memory. Undergraduates (n=51) were administered three types of time duration judgment tasks. Type A task duration was judged using the equation of “duration = departure time – arrival time”; Type B task using the equation, “duration = distance / velocity”; and Type C task duration could be judged using either Type A or Type B equations. Participants' working memory capacity was measured by reverse order digit span. Our results revealed a correlation between participants' duration judgment accuracy and their working memory capacity.

P-TueAm-51 **Howe, Mark** Lancaster University

Coauthors: Derbish

Are Survival Memories Simply more Elaborate Memories?

The role of elaboration in the survival memory advantage was examined using a DRM-like paradigm. Lists containing associates of critical lures for neutral, negative, and survival words were rated for their relevance across encoding scenarios varying in elaboration. Overall, survival words were less accurately remembered (more false recognition) than neutral words regardless of encoding scenario. Accuracy for scenarios requiring only modest elaboration was higher (fewer false memories) than those requiring greater elaboration. That elaboration may drive the accuracy of adaptive memories is discussed in the context of general models of memory and models of false memory, specifically.

P-TueAm-53 **Sato, Tomomi** Ochanomizu University

Coauthors: Wakebe

The processes of effective persuasions: From a developmental perspective

This study examined whether three abilities (a) focusing on appropriate person to persuade, (b) focusing on appropriate belief to persuade, and (c) focusing on both appropriate person and belief and employing belief relevant information underlie effective persuasions. The results of hypothetical story tasks showed that 4-year-olds could focus on appropriate person to persuade and 5-year-olds could focus on appropriate belief to persuade. Only 6-year-olds could persuade others effectively based on recipients' beliefs. These results suggested that there are at least three stages to proceed for effective persuasion, and the abilities develop slowly through preschool and early school age.

P-TueAm-55 **Wakebe, Toshihiro** University of Tokyo

Coauthors: Watamura, Tsuneoka, & Takano

Memory Retrieval and Hypermnnesia

This study investigated whether memory activation continues after an original retrieval attempt. Participants were placed into one of two groups (Retrieval or Calculation) and asked to study a series of pictorial images containing target stimuli. At Test 1 participants were asked to retrieve the target stimuli. Immediately afterwards 'Retrieval' group participants were asked to retrieve filler verbal stimuli whilst those within the 'Calculation' condition were asked to perform numeric additions. At Test 2 participants in both groups were asked to re-retrieve the target stimuli (Test 2). We hypothesized that if target activation continues after Test 1, the activation would be affected by retrospective interference by the verbal filler retrieval but not with calculation, thus at Test 2, participants within the 'Retrieval' group would retrieve fewer targets than those within the 'Calculation' group. Our findings however did not support this. Participants within the 'Retrieval' group re-retrieved more targets, suggesting that retrieving a memory involves activating other irrelevant memories.

P-TueAm-57 **Yamada, Ryoma** Nihon University

Coauthors: Itsukushima

The effects of schema and its verbalization on memory and recollective experience

The purpose of this study is to examine the effects of schema and its verbalization on memory and recollective experience. In Experiment □, participants watched slides describing cooking scene in the

kitchen, which included schema-consistent items and inconsistent items. In Experiment □, participants watched similar slides, except that the slide included consistent items only. In both experiments, following the slides, half of the participants verbalized the kitchen schema. The other half of the participants didn't verbalize. Then, participants completed recognition test consisted of targets, schema-consistent distracters, and inconsistent distracters. Furthermore, remember-know judgment task was given to all the participants. In both experiments, the false alarm rate and remember judgment rate for schema-consistent distracters were higher than for inconsistent. The false alarm rate and remember judgment rate in schema verbalization group were as much as those in control group in Experiment □, and were higher than those in control group in Experiment □.

P-TueAm-59 **Iseki, Ryuta** University of Tsukuba

Coauthors: Kikuchi

How does adversative conjunction improve one's impression? The specificity of discourse focus effect

Adversative conjunction emphasizes some elements of a sentence rather than others. For example, in "Kazuya is know-it-all, but he is unselfish", being know-it-all would be less attended than being unselfish. This study is intended to establish such discourse focus effects, and to investigate whether the effects occurred from moderating influence of specific elements. In Experiment 1, participants rated likeability of a character mentioned in the sentence. In Experiment 2, the other participants rated likeability of one trait of the character. The results suggested that the discourse focus effects by conjunction were not due to eliminate valence of one trait.

P-TueAm-61 **Ikeda, Kenji** Nagoya University

Coauthors: Kitagami

The effects of working memory capacity and mental effort upon monitoring accuracy in text comprehension

We investigated the effects of working memory capacity and mental effort upon our ability to monitor accuracy in text comprehension. Participants' working memory span was measured by reading span and operation span tests. Mental effort was measured by three levels of text difficulty (easy, standard, and difficult). Participants were administered a working memory span test and were asked to read six expository texts. Participants provided each text with a personal comprehension rating and were then asked to complete a comprehension test. Our findings showed that a participant's working memory capacity and the level of text difficulty affected their ability to monitor accuracy. Our findings are discussed.

P-TueAm-63 **Kaczorowska-Bray, Katarzyna** University of Gdańsk, Poland

Coauthors: Czaplewska

The understanding of indirect instructions by 3- to 7-year old children

The purpose of the conducted research was to basically outline a development model regarding the comprehension of indirect instructions by pre-school children. During the research, an effort was made to determine at what age children begin to understand such instructions; in which situational or social conditions they interpret utterances as requests and in which as questions of possibility. The final research group consisted of 68 children (40 boys and 28 girls) in the ages of 3.6 to 6.5 years. The obtained data allowed us to outline a initial developmental model of the comprehension of indirect instructions by pre-school aged children.

P-TueAm-65 **Kikuchi, Fumitoshi** Tohoku University

Coauthors: Sato, & Abe

Is humor a better excuse than a lie?

We investigated how cognitive and emotional responses to an excuse affect judgments of tolerance. A total of 277 college students read three scenarios in which the protagonist gave an excuse (incredible lie, a

credible lie, or humor) for arriving late to an appointment. Participants then rated the cognitive and emotional responses to each excuse. Participants are more intolerant and felt angrier when they read a humorous excuse than the lies. These results suggest that humor is the worst excuse; however, a “truly” humorous excuse could be good because the degree of humor is positively correlated with the level of tolerance.

P-TueAm-67 **Hamajima, Hideki** Aichi University of Education

Do false memories occur for items presented as line drawings?

We investigated the false memory phenomenon using the DRM paradigm. In one condition, memory items were depicted by line drawings only whilst in the other condition, items were presented by line drawings accompanied with words. Undergraduates (n=75) were placed into two groups and asked to learn six ten-item lists of items depicted only by line drawings or line drawings accompanied with words. Our findings showed that participants within the line drawing + word condition falsely recognized the critical lures more frequently than those within the line drawings only condition. We suggest that the ambiguity of the line drawings may have caused a reduction in the likelihood of false memories for items within the line drawing only condition.

P-TueAm-69 **Shinohara, Kazumitsu** Osaka University

Coauthors: Morimoto, & Kubota

Finger-pointing and call method contributing to sure orientation of visual attention

The purpose of this study was to examine the effect of finger-pointing and call on the orientation of visual attention. The spatial cueing task was performed with the finger-pointing and call method including "finger-pointing and call", "pointing only", and "call only". The target was responded faster in the "finger-pointing and call" condition and the "pointing only" condition than in the control condition. The validity effect was subtle in the "finger-pointing and call" condition. These results indicate that the finger-pointing and call contributes to sure orientation of visual attention to the cued position.

P-TueAm-71 **Williams, Emma** Cardiff University

Coauthors: Bott, & Lewis

The role of suppression and choice in telling lies

The Activation-Decision-Construction Model (ADCM; Walczyk, Roper, Seeman, & Humphreys, 2003) predicts that when people lie they will take longer to respond to questions because they have to make the decision to lie, suppress the truth in working memory and construct a plausible lie. A study was conducted to test the contributions of the different components of this model. In the basic paradigm, participants saw a coloured square on the screen and were instructed to lie about its colour, tell the truth about the colour, or decide to do either. Results are discussed in relation to the specific components of the ADCM and wider research examining deception detection.

P-TueAm-73 **Kawahira, Kyoko** Nihon university

Coauthors: Itsukushima

Point of view in involuntary memories

This study aimed at clarifying the feature of involuntary memories that were triggered and recalled by the sense stimulation. To clarify the features of such involuntary memories, we introduced the concept of the “point of view” that tells us the re-collective quality of the memories. 89 participants (M=29.56, SD=16.43) were asked to describe freely the recollection including the items such as the cue, retrieved content, and retrieved time. They also answered the vividness, importance of the recalled items, the present and past (when it was experienced) emotionality of the memories, and the “point of view”. The result showed that observer “point of view” was dominant, and more old events recollected in field perspective.

P-TueAm-75 **Yoshimura, Takako** Osaka Kawasaki Rehabilitation University

Coauthors: Saito, Saito, Fukumori, & Maeshima

The nature of information integration in a patient with a right frontal lobe lesion: Implications from an analysis of memory errors

We investigated how a patient with a right frontal lesion performed on tasks regarding the maintenance of bound information derived from two different domains (verbal and spatial). Although the patient exhibited equivalent levels of memory performance to a healthy control group in a task that required memory for simultaneously but separately presented spatial and verbal information, an error analysis showed that the patient produced more errors in a certain error category than the control subjects in a task that required memory for integrated information from spatial and verbal domains. We discuss the nature and mechanisms of memory binding.

**Tuesday 28, 13:45-14:00 &
15:30-16:15**

Higashiyama

Poster Session PM

P-TuePm-02

Potvin, Marie-Julie

Université du Québec à Montréal
Hôpital du Sacré-Coeur de Montréal

Coauthors: Audy, Giguère, & Rouleau

Proposition of a new ecological prospective memory task

Although prospective memory (PM) is crucial for daily functioning, few sensitive, valid and ecological clinical tasks are available. To address these concerns, we developed an ecological PM task and administered it to a group of chronic traumatic brain injury (TBI) patients. Preliminary results show that TBI patients perform lower than normal control participants, especially when the initiation of actions is determined by time. Moreover, PM performance is significantly correlated with results on a questionnaire assessing PM in daily living. The present PM task appears to be a sensitive tool to assess PM difficulties that combines both internal and ecological validity.

P-TuePm-04

Kunimi, Mitsunobu Jin-ai University

Coauthors: Matsukawa

Investigating an efficient approach to improve visual short-term memory in the elderly

We examined the effects of visual long-term memory on improving visual short-term memory in elderly people. Twenty-five elderly participants (M=68.3 years) were asked to learn two types of visual figures via one of four levels of repetition: once, twice, three times, or four times. Our findings indicated that participants' memory scores increased with the number of repetitions and differed dependant on the figure type. These findings suggest that the formation of visual long-term memory via repetition can improve visual short-term memory by facilitating the encoding of visual figures.

P-TuePm-06

Muroi, Miya Hyogo College of Medicine

The effect of distance between each Braille on tactile identification.

Braille is an effective tool for blind people to collect information as an Augmentative & Alternative Communication (AAC) but it's difficult for people to acquire it especially for adult. In this study, to investigate what makes difficult for beginner to learn Braille, the distance between each letter was manipulated when identifying Braille. As a result, when the distance between each letter increase, the time for identification decreased and the number of correct answer increased.

P-TuePm-08

Iwanaga, Mio Hiroshima University

Coauthors: Nittono

Distraction effects of unexpected computer responses to users' operation

When interacting with a computer, we select a goal-directed action with the expectation of its effect. However, we sometimes receive feedback different from our expectations. This study examines whether such an unexpected computer response affects a user's task performance. Participants were asked to guide a cursor on the screen to a goal by pressing two buttons, and at the same time, to detect the flash of a target stimulus. When the cursor showed an unusual movement against the user's button press, target

detection was delayed. The results suggest that unexpected computer responses capture users' attention.

P-TuePm-10 **Gross, Julien** University of Otago

Coauthors: Gillard, Crawford, & Hayne

Adults' Ability to Interpret Color in Children's Art

Research has shown that children do not use color symbolically when producing drawings of clinically-relevant events. Can adults distinguish between children's drawings of happy and sad events? Participants were asked to evaluate drawings produced by children who were asked to draw about a happy or a sad event. Some participants viewed the drawings in black and white and some viewed the drawings in color. Although adults identified happy drawings at a rate greater than chance, their ability to identify the more clinically relevant, sad drawings was poor. The clinical implications of these data will be discussed.

P-TuePm-12 **Iwakura, Nozomi** Hosei University

Coauthors: Ochi

Examining the relationship between fear of crime and knowledge of actual crime occurrence

We examined factors that evoke fear among people in a place where the occurrence of crime was either frequent or highly expected. Thirty undergraduates (15 males and 15 females) viewed photographs depicting various locations in which crimes had or had not actually occurred. Participants were asked to provide each photograph with a rating that reflected their fear of crime occurring at each location. Our findings showed that participant fear of crime ratings were statistically higher for locations where crimes had actually occurred. These results are discussed with a view to utilizing the fear of crime in the effective avoidance of criminal involvement.

P-TuePm-14 **Sakuma, Yasuyuki** Fukushima University

Coauthors: Saito

English digit span improves through English class activities in Japanese primary school children: A cross-sectional sequential study

We report data from an English training programme at a Japanese primary school, in which children attended English activities regularly for three years. Three groups of children participated (first-, third- and fifth-grade pupils). During the first year participants engaged in Japanese and English aural digit span tests and were later tested during the second and third year of the programme. Our findings showed that in the third year of the programme, third- and fifth-grade children demonstrated a higher English (but not Japanese) digit span score than a comparison group of third- and fifth-grade children who were in their first year of training.

P-TuePm-16 **Matsuo, Kayo** Keio University

Coauthors: Itoh, & Cho

Effects of Frustration and Temporal Distance on Altruistic Behavior

The present study investigated whether frustration, a type of antisocial affects that was not investigated in the previous studies, reduces helping and if so, whether an extended time for helping mitigates the negative effect of frustration on helping. Participants (N = 266) were manipulated their moods by solving anagrams and then read a letter that requested volunteers either near or distant future. The results showed no effects of frustration and time on the decision to help and the amount of helping. The results implied that frustration is qualitatively different from the other antisocial affects (e.g., anger) on intention to help.

P-TuePm-18 **Lechowicz, Meryn** University of Sydney

Coauthors: Howie

Suggestibility in Children: Language and the Pragmatics of Guidance

Assisting children to provide accurate recall for remembered experiences requires an understanding of suggestibility. Understanding suggestibility requires the consideration of both cognitive and contextual

factors. However, investigations into relevant combinations of these factors have been rare. Therefore, this study investigated the importance of pragmatic awareness, language ability, the contextual variable of guidance and their interactions in accounting for suggestibility in 71 children aged five to eight years. Interrogative suggestibility was measured using misleading questions about a video watched a week earlier. Standardized tests of language ability were administered, and a pictorial measure of pragmatic ability based on Relevance Theory (Sperber & Wilson, 1995) was developed for the study. The guidance protocol targeted the pragmatic demands of the interview: reminding children of the interviewer's ignorance and the likelihood of tricky questions. The guidance also informed children how to answer such questions and included practice opportunities. Guidance significantly reduced suggestibility, and there was a significant interaction between pragmatic awareness and guidance whereby guidance supported low pragmatic awareness, allowing children to overcome these limitations. Furthermore, a composite language score significantly predicted suggestibility. Finally, an exploratory investigation into the role of specific language abilities supported the particular importance of expressive grammatical ability rather than semantic or receptive grammatical ability.

P-TuePm-20 **Matsuda, Takashi** Kanazawa University

Coauthors: Matsukawa

Retrieval-induced forgetting in a DRM paradigm

Using the DRM paradigm, we examined whether retrieval-induced forgetting (RIF) would occur for episodic associations and false memory. In addition, we also examined whether the inhibitory function in RIF declined with aging. The results indicated that RIF was observed for episodic associations and that the inhibitory function in RIF did not decline with aging. For false memory, false recall of critical items associated with practiced lists was lower than false recall of critical items associated with unpracticed lists. This result suggests that RIF influences false memory and decreases the production of false recall.

P-TuePm-22 **Kondo, Aya** Hiroshima University

Coauthors: Sugimura

The effect of the amount and source-attribution level of information on source-monitoring accuracy: Developmental changes from 4- to 6-year-olds

Three hundred young children were given source-monitoring (SM) tasks identifying two speakers under four conditions; the amount of information received (i.e., word/sentence) and the level of source-attribution (i.e., neutral/source-attributed). Results showed that a) the accuracy of SM increased with age, b) for the 4-year-olds, there was no difference between the four conditions on SM accuracy, however; the 5-and 6-year-olds showed the highest performance under 'sentence and source-attributed' conditions. Finally, for the 6-year-olds, the SM under 'word and neutral' condition was less accurate. The results are discussed from the perspective of developmental changes underlying SM processes.

P-TuePm-24 **Tsuneoka, Michiko** The University of Tokyo

Coauthors: Wakebe, Watamura, & Takano

The relation between anger intensity and territory invasion: An examination of "the anger urge" in Urge theory

This study examined whether anger intensity positively correlated with the degree of "territory invasion." Participants evaluated their anger intensity, supposing that their rights and property, and social rules were violated. Results suggested that participants felt greater levels of anger the more they thought their territory was invaded. Experiment 2 investigated whether this anger intensity became stronger in front of others than without others present. Participants evaluated their anger intensity, supposing that the above violations occurred in front of others or without others present. The results revealed that in some situations participants felt angrier without others present, meaning that the violation alone could not explain this result.

P-TuePm-26 **Rouleau, Isabelle** Université du Québec à Montréal, Canada

Coauthors: Mallett, Chouinard, Imbeault, & Achim

The validity of the 48-picture test in the detection of simulated memory impairment

Fifty-five patients suspected of malingering and 37 volunteers asked to simulate memory deficits were compared to memory impaired (22 severe amnesics and 105 with mild memory impairment : MMI) and 254 other patients on three tests: Rey Auditory Verbal Learning Test (RAVLT), Rey Complex Figure immediate recall (RCFT-IR) and the 48-picture test (48-P), a forced-choice recognition test. On the 48-P, simulators (74.2%) and amnesics (77.7%) did significantly worse than the MMI (98.7%). However, on the RCFT and RAVLT, simulators did much better than the amnesics, performing like the MMI. Discrepancy between the 48-P and RCFT or RAVLT strongly indicates simulation.

P-TuePm-28 **Inoue, Kazuya** University of Tsukuba

Coauthors: Kikuchi

The size of visual field restriction affects mere exposure effect

We investigated whether the mere exposure effect (MEE) would occur for mental images. In the first phase, participants were asked to memorize whole images of random polygons while observing hidden polygons through a small window (5% or 10 % of a search area) controlled with a mouse. In the next phase, participants were asked to select which polygons their preferred out of pairs of learned and novel polygons in full view. The proportion of learned polygons selected was significantly above the chance in the larger window group, suggesting that the MEE could occur for mental images—when the images were easy to construct.

P-TuePm-30 **Kitagami, Shinji** Nagoya University

Coauthors: Yamada

The effect of negative emotion and verbal description in face recognition

The verbal overshadowing effect is the phenomenon in which describing a previously seen face impairs its recognition (Schooler & Engstler-Schooler, 1990). The primary purpose of this study was to investigate the effect of negative emotion on verbal overshadowing. In order to induce negative emotions, half the participants were presented unpleasant pictures selected from the International Affective Pictures System (IAPS) at the beginning of the experiment. As a result, we found that emotional states could influence the emergence of the verbal overshadowing effect. The implications of these findings for research and practice are discussed.

P-TuePm-32 **Hotta, Chie** Nagoya University

Coauthors: Kawaguchi

Effects of learning on successful forgetting

Previous studies indicated that the learning of thought substitution had a powerful effect on successful forgetting of unwanted memories. We examined how the first paired-associate learning speeds, as an indicator of learning ability, had an effect on the degree of forgetting. At paired-associate learning, participants studied until providing the correct responses on two consecutive. After that, they were asked to avoid thinking of a respond word to a cue word. Finally, they were asked to recall the respond word. The results showed that the middle learner seemed to succeed in forgetting, but not the extreme fast and slow learners.

P-TuePm-34 **Cieraad, Rineke van Wees** University of Groningen

Coauthors: Huntjens, & de Jong

Characteristics of non-memory intrusions in children of Second World War survivors

It is often assumed that, due to the patient's phenomenological experience of reliving the original traumatic event, intrusions are historically accurate recollections. However, some studies suggest that traumatic intrusions do not necessarily reflect traumatic incidents accurately. The poster presents the setup of the study in which this hypothesis is investigated by looking at the characteristics of intrusive recollections in a sample of children of WW-II survivors, children who themselves have not directly

witnessed war atrocities. Both qualitative and quantitative characteristics of intrusive recollections will be indexed and related to several participant characteristics.

P-TuePm-36 **Hoshi, Yuuichiro** Hosei University

Coauthors: Watanabe

Assessing the Effects of Generalization Strategy of Class-wide Social Skills Training on Junior High School students

The purposes of this study were to examine effects of self-management strategy and the Social Skills Group Intervention Program (DeRosier, 2002). One hundred and twenty students were assigned class-wise to Generalization group (SST and self-management strategy; n = 21) or Treatment (SST only; n = 18) or no-treatment Control (n = 81). All participants evaluated by themselves their Social Skills and Self-Esteem at Baseline-, Post-, and Follow-up tests. Results showed that there were main significant effects of the group and the time on social skills. Social Skills of the Generalization group increased higher than these of the Treatment group.

P-TuePm-38 **Honma, Yoshiko** Nagoya University

Retrieval-induced forgetting of emotional and non-emotional words

The aim of this study was to examine whether retrieval-induced forgetting obtained typically in non-emotional materials could also occurred in emotional materials. The procedure consisted of three phase, included the Study, Retrieval practice, Cued-recall test. First, participants studied the positive (e.g. holiday), and negative (e.g. hopelessness), and neutral (e.g. baggage) word lists. After that, they retrieved the half words of each word lists. Finally, cued recall test was conducted in all materials. The results showed that retrieval-induced forgetting for positive and negative materials could not be obtained, but not neutral ones.

P-TuePm-40 **Kubo, Kenta** Hiroshima University

Coauthors: Nittono

Additional processing of a critical item affects event-related potentials in the concealed information test

The concealed information test (CIT) assesses an examinee's knowledge of a critical item that only a guilty person knows. This study examined whether additional processing of the critical item would affect the event-related potential (ERP) responses to it. Twelve participants chose one card from five, and then they performed a cognitive task that required repetitive processing of the chosen card or a different card. In the subsequent CIT, the chosen card elicited a larger late positive ERP than the unchosen cards when it had been processed repeatedly. The results suggest that additional processing increases ERP responses to the critical item.

P-TuePm-42 **Miura, Hiroshi** Keio University

Coauthors: Itoh

Revelation effects in recognition judgments of real-life brand names

The revelation effect in judgments of brand names was examined. Twenty undergraduates (M=19.7 years) viewed a series of brand names and were asked to judge whether they had known these brands during a designated period; when they had been junior-high-school students. Some of the trials were preceded by an anagram task. The results showed that anagrams increased participants' recognition responses but only for brand names that had not existed during the designated period. These findings suggest that revelation effects occur when judgments do not necessarily rely on recollection but on familiarity processes.

P-TuePm-44 **Hamamoto, Yuki** Fukuyama University

Coauthors: Hira

The relationship between weapon focus and the physical features of weapons: A P300 study

The weapon focus effect refers to the phenomenon where, in the event of a crime, an eyewitness' memory of the features of a criminal is impaired if the criminal was holding a weapon, such as a gun or knife. The present study, with P300 and RT as the dependent variable, was designed to investigate the relationship between weapon focus and the physical features of weapons; that is, whether a sharp triangular knife attracts more attention than a blunt rectangular knife using visual exploratory task. We propose that the perceived sharpness of a knife increases the weapon focus effect.

P-TuePm-46 **Sakuma, Naoko** Tokyo Metropolitan Institute of Gerontology

Coauthors: Ohgami, Kureta, Fushimi, Yasunaga, Suzuki, Fujiwara, Shinkai, & Homma

Self-reports on memory functioning and cognitive performance in older adults

We examined the relationship between self-reports on memory functioning and cognitive performance. A sample of 219 healthy older adults (mean age 67.2 years) completed a battery of 10 cognitive tasks and questionnaires including self-evaluation of retrospective memory functioning, daily memory problems, and depression. Exploratory factor analysis yielded three factors (Crystallized Intelligence, Perceptual Speed, and Memory) on the 10 cognitive tasks. Memory performance was only related to remote retrospective functioning, while perceptual speed was related to recent retrospective functioning and depression. Self-evaluation of memory-declines by older adults may be affected by the speed of processing in addition to memory functioning itself.

P-TuePm-48 **Ohgami, Yuko** Wayo Women's University

Coauthors: Sakuma, Kureta, Fushimi, Suzuki, Yasunaga, Fujiwara, Shinkai, & Homma

Content analysis of story recall in older adults

To examine age-related differences in story recall, a sample of 144 healthy older adults (initially 56 to 83 years old) were tested four times over three years, using four parallel versions of the story recall subtest, taken from the Rivermead Behavioral Memory Test. In addition to the standard propositional scoring, we used a content analysis focusing on the end of the story. We found moderate age-related decline in the number of propositions recalled, but failed to find any age-related differences in the accuracy of end-of-story recall. These results suggest that the recall of storyline is less affected by aging.

P-TuePm-50 **van Golde, Celine** Maastricht University, The Netherlands

Coauthors: Sharman, & Candel

High and low prevalence information from different sources affects the development of false beliefs

To examine the effects of high and low prevalence information from different sources on false beliefs subjects rated the plausibility of different childhood events, how confident they were experiencing those events, and their memories of these. Two weeks later, subjects received high prevalence information about one target event and low prevalence information about another. Subjects received the information in a third-person description, a newspaper article, or cohort data about previous students' experiences, or they received no information. High prevalence newspaper information increased plausibility and belief ratings compared to no information or third-person descriptions. We discuss various applications of our findings.

P-TuePm-52 **Maruyama, Manami** Mie Chukyo University

Coauthors: Takeuchi

The Developmental Relationship between Space Concept and Time Concept

In this study, the developmental relationship between the conceptual structures of space and time was examined. Generally, it is thought that space concept is the foundation of time concept. Participants were 1st, 2nd, 3rd graders. Results were as follows: (1) 1st grade children's time and space representations were as shown route map image. (2) 2nd and 3rd grade children had hierarchical time structure. (3) 3rd grade children had more organized space structure. These results didn't support the general relationship of space concept and time concept. Further research is required to clarify developmental relation between a time concept and a space concept. Proofreading by a native speaker is appreciated.

P-TuePm-54 **Yamada, Yohei** Nagoya University

Coauthors: Kitagami

Retrieval-induced forgetting on face identification

Retrieving a subset of learned items impairs recall of the remaining items. Previous studies have indicated that retrieving a half of physical features induced forgetting the remaining features. However, it is unclear whether retrieving physical features also influences face identification. Thus, we examined the effects of retrieval practice on face identification. Participants studied ten slides of two criminals who had ten unique features respectively, and then recalled a half of the features of either criminal. Finally, participants recalled all the features of two criminals and recognized the faces. The results showed that retrieval practice could influence face identification.

P-TuePm-56 **Kamigaki, Akiko** Kawasaki College of Allied Health Professions

Cross-modal recognition in infants: Using the matching tasks of visual and haptic perception

We examined the development of cross-modal recognition abilities of infants. Seventy two infants (aged 3, 4 and 5 years) and 24 undergraduates were asked to complete two types of matching tasks; visual-visual and visual-haptic. The results showed that the younger the infants, the lower the scores in the visual-haptic versus the visual-visual matching tasks. The differences in the scores on these two tests became smaller for children of increasing age, and no difference was observed in undergraduates. These findings may indicate that infants hold separate representations for visual and haptic perceptions of objects.

P-TuePm-58 **Tamayo, Ricardo** Universidad del Norte, Barranquilla, Colombia

Enhancing executive functioning to prevent hostile attributions

This pilot study examined whether increased executive functioning may be used to prevent implicit hostile attributions in situations involving ambiguous stimuli. Participants were assigned to one of two groups after completing a modified version of the Implicit Association Test (IAT) adapted to reveal implicit attitudes toward violence. Half of the participants that previously showed implicit preference for violent pictures were exposed to a modified version of the Stroop task. The other half of the participants that previously showed implicit preference for violent pictures were exposed to a neutral (filling) task. The results showed that performance in a retest of the IAT was significantly different in the two groups. I discuss this preliminary findings in terms of the potential positive effects of enhanced executive functioning (possibly conveyed by the Stroop task) to prevent implicit and biased hostile interpretations of stimuli. The findings are (1) discussed in line with Anderson and Bushman's (2002) General Aggression Model (GAM) and (2) considered as a potential contribution to design learning environments useful to prevent aggression.

P-TuePm-60 **Matsuda, Yukihiisa** Tohoku University

Coauthors: Iwasaki

Sensation seeking style predicts working memory capacities

This study addresses the proposal that sensation seeking style (SSS) predicts working memory capacities (WMCs). In the current study, high sensation seekers showed better performance on the dichotic listening task (Ball and Zuckerman, 1992), leading to the proposal that high sensation seekers would have high WMC. In this experiments, we tested that visual, verbal WMC and SSS. The results showed that relationship between SSS and WMCs was found, moreover, the types of SSS predicts different types of WMC. Two subscales, Thrill and Adventure Seeking and Experience Seeking, predict visual WMC. Rest of subscales, Disinhibition and Boredom Susceptibility, predict verbal WMC.

P-TuePm-62 **Matsuda, Ken** Yamaguchi University

Coauthors: Kusumi

The influential effects of emotional association on product preference

We examined the effects of emotional association on product preference. Ninety-four undergraduates repeatedly watched a series of product advertisements which were simultaneously paired with a series of emotional pictures. Participants were asked to rate their intention to purchase each of the products shown as well as a series of new products. The results revealed that the emotions paired with the product advertisements had an effect on participants' purchase intentions through the misattribution of the emotional information to the paired advertised products. Our findings are discussed alongside the additional effects of emotional associations on other variables such as product attributes and brand names.

P-TuePm-64 **Nomura, Mitsue** Kyoto University

Coauthors: Tomishiro, Takemoto, Jo, Suzuki, Kataoka, Tomita, Ikeda, & Yoshikawa

Does nurses wearing masks affect the quality of communication between nurses and patients?

Communication between nurses and patients is essential for the provision of nursing care. The present study investigated whether nurses wearing masks would affect the quality of communication between nurses and patients. A questionnaire study was conducted individually with in-patients in a ward for tuberculosis. The nurses and patients were asked to report levels of satisfaction and frustration with daily communication between them. In addition, patients were asked for their impressions of nurses wearing the N95 mask, and nurses were asked how the patients felt about nurses wearing the N95 mask. The difference between patients' impressions and nurses' beliefs, and the possible factors determining the extent of satisfaction of communication are discussed.

P-TuePm-66 **Joslyn, Susan** University of Washington, Seattle

Coauthors: Savelli, & Nadav-Greenberg

Impact of forecast uncertainty on decisions involving costs and losses

Public weather forecasts rarely include uncertainty estimates because of research demonstrating that humans do not perform according to normative models of rational choice when uncertainty is involved. However, existing research does not compare people's decisions with and without uncertainty information. Our research demonstrates improved decision-making with uncertainty information in a realistic road maintenance task, compared to a control condition with a conventional deterministic forecast. Although participants tended to be risk seeking, those with uncertainty information made better decisions overall. Results suggest that non-experts can use uncertainty information to improve decision quality, although resulting decisions do not necessarily meet normative standards.

P-TuePm-68 **Nagaoka, Chika** Kyoto University

Coauthors: Kuwabara, Watabe, Yoshikawa, & Oyama

Understanding the client in psychotherapy

The present study investigated empirically the ways in which counselors understand their clients. 8 counselors and 12 non-counselors watched the first 23 minutes of two counseling sessions, and wrote down everything they could recall from what the client said during the counseling sessions. These recollections were transformed into scores of 'true recall' based on their semantic correspondence to the transcript of the counseling videos, and into scores of 'false recall' based on their semantic inconsistency. The results highlighted differences between counselors and non-counselors with regard to both true and false recall.

P-TuePm-70 **Goto, Nobuhiko** Nagoya University

Coauthors: Karasawa

The Level of Abstraction in Memory with a Feeling of Guilt: Comparison of Recent and Far Memory

People tend to envision near future in details whereas far future tends to be described in more abstract terms (Liberman & Trope, 1998). The present study examined whether the same is true for events in near and far past. This study specifically focused on undergraduate students' memory connected with a feeling

of guilt toward recalled events. The results showed that the feeling of guilt had an impact to raise the concreteness regardless of the time of events. Applied implications of the present findings for the study of confession are discussed.

P-TuePm-72 **Masuda, Sayako** Keio University

Coauthors: Tanaka, Ashino, Yoshida, & Mori

The theory of mind development in Japanese deaf children

We have an ability to infer other's mind called theory of mind, which is generally tested by a false belief task. Many researchers reported that 4-years-olds passed the task, but that children with autism could not pass even if at a higher mental age. In recent studies in the United States and England, it was reported that not only autism, but also the deaf children couldn't pass the task at 4-years-old. In this present study, we compared the performances on the false belief task of deaf and hearing Japanese children who don't have developmental disorders.

P-TuePm-74 **Kumar, Poornima** University of Aberdeen

Coauthors: Waiter, Ahearn, Milders, Reid, & Steele

Abnormal Brain Responses during Social Inclusion in Major Depressive Disorder

Fifteen patients with major depressive disorder (MDD) and 16 matched healthy controls were scanned (fMRI) while playing a virtual "ball passing" game, during which they were periodically included and excluded from the game. The task was used to investigate the neural circuitry involved during various levels of social inclusion in healthy controls and depressed patients. Consistent with our hypothesis, the subgenual cingulate, orbitofrontal cortex, insula, ventral striatum and posterior cingulate were found to be deactivated in depressed patients when compared with controls during social inclusion. Abnormal activity in these brain regions in patients during a social inclusion task may be associated with a failure to efficiently predict social behaviour and respond normally during social interactions.

P-TuePm-76 **Imai, Hisato** Tokyo Women's Christian University

Coauthors: Ishii

Emotional valence and remembering perspectives on autobiographical memory

We investigated relationship among emotional valences on encoding and remembering of autobiographical memory, and two types of remembering perspectives; field or observer (Nigro & Neisser, 1983). Ninety-nine female undergraduates remembered three types of autobiographical memories in their junior high schools and in recent years. The types were pleasant experiences remembered pleasantly (pleasant-pleasant), unpleasant experiences remembered unpleasantly (unpleasant-unpleasant), and unpleasant experiences remembered neutrally (unpleasant-neutral). They also classified each memory as field or observer. Results showed field memories were more frequent for unpleasant-unpleasant memories than pleasant-pleasant and unpleasant-neutral memories in junior-high-school condition. No differences were found for memories in recent-years condition.

Author Index with Email Address

ID Legend: Key = keynote, P = poster, PS = plenary session, R = regular session, & S = symposium

A	email address	Date/Time	ID
Abe, Nobuhito	abe-n&mail.tains.tohoku.ac.jp	Mon27, 10:45-12:00	S-MonAm-3-4
Akimoto, Yoritaka	aki-moto&cog.is.tohoku.ac.jp	Tue28, 10:45-13:00	P-TueAm-19
Amemiya, Yuri	twomoons_t@yahoo.co.jp	Tue28, 10:45-13:00	P-TueAm-11
Arakawa, Ayumu	a.arakawa&law.nagoya-u.ac.jp	Wed29, 10:45-12:00	R-WedAm-5-1
Avci, Gunes	gunesavci@gmail.com	Mon27, 14:15-15:45	R-MonPm-5-1
Azad, Tanjeem	tazad&uvic.ca	Wed29, 13:00-14:15	R-WedPm-1-3
B	email address	Date/Time	ID
Belli, Robert F.	bbelli2&unl.edu	Wed29, 13:00-14:15	R-WedPm-4-1
Belli, Robert F.	bbelli2&unl.edu	Wed29, 14:45-16:00	R-WedPm-12-0
Bender, Michael	m.bender&uvt.nl	Wed29, 13:00-14:15	R-WedPm-4-2
Ben-Shakhar, Gershon	mshpugb&pluto.mscc.huji.ac.il	Wed29, 10:45-12:00	S-WedAm-3-5
Berka, Chris	chris&b-alert.com	Mon27, 16:00-17:15	PS-MonPm-2
Berntsen, Dorthie	dorthie&psy.au.dk	Mon27, 14:15-15:45	R-MonPm-4-5
Blandon-Gitlin, Iris	iblandon-gitlin&fullerton.edu	Wed29, 14:45-16:00	R-WedPm-14-1
Blank, Hartmut	hartmut.blank&port.ac.uk	Tue28, 14:15-15:30	S-TuePm-1-2
Bohn, Annette	anetboh&psy.au.dk	Wed29, 14:45-16:00	R-WedPm-15-5
Bortolotti, Lisa	l.bortolotti&bham.ac.uk	Tue28, 14:15-15:30	S-TuePm-2-5
Bourne, Corin	Corin.Bourne&psych.ox.ac.uk	Tue28, 10:45-12:00	S-TueAm-2-1
Brace, Nicola	N.A.Brace&open.ac.uk	Tue28, 14:15-15:30	S-TuePm-1-0
Brace, Nicola	N.A.Brace&open.ac.uk	Tue28, 14:15-15:30	S-TuePm-1-4
Brewer, Neil	neil.brewer&flinders.edu.au	Mon27, 10:45-12:00	S-MonAm-1-0
Brewer, Neil	neil.brewer&flinders.edu.au	Wed29, 09:00-10:30	PS-WedAm-1
Brewer, Neil	neil.brewer&flinders.edu.au	Wed29, 09:00-10:30	PS-WedAm-5
Brown, Norman R.	nrbrown&ualberta.ca	Wed29, 10:45-12:00	S-WedAm-4-0
Brown, Norman R.	nrbrown&ualberta.ca	Wed29, 10:45-12:00	S-WedAm-4-3
Bull, Ray	rhb10&leicester.ac.uk	Tue28, 10:45-12:00	S-TueAm-3-4
Bull, Ray	rhb10&leicester.ac.uk	Wed29, 16:15-17:45	PS-WedPm-5
Bussey, Kay	Kay.Bussey&psy.mq.edu.au	Mon27, 10:45-12:00	S-MonAm-6-1
Buttle, Heather	H.Buttle&massey.ac.nz	Mon27, 14:15-15:45	R-MonPm-4-1
C	email address	Date/Time	ID
Chung, C. F. Bell	chungbell@hotmail.com	Wed29, 14:45-16:00	R-WedPm-16-5
Conway, Martin A.	martinconway1&me.com	Tue28, 09:00-10:30	PS-TueAm-5
Conway, Martin A.	martinconway1&me.com	Wed29, 10:45-12:00	S-WedAm-4-5
Conway, Martin A.	martinconway1&me.com	Wed29, 14:45-16:00	R-WedPm-16-4
Cook, Gabriel I.	gcook&cmc.edu	Wed29, 14:45-16:00	R-WedPm-12-5
Cox, Rochelle E.	rcox&maccs.mq.edu.au	Tue28, 14:15-15:30	S-TuePm-2-0
Cox, Rochelle E.	rcox&maccs.mq.edu.au	Tue28, 14:15-15:30	S-TuePm-2-4
Crawford, Emily	emilycrawford@gmail.com	Wed29, 13:00-14:15	R-WedPm-5-2
Curci, Antonietta	a.curci&psico.uniba.it	Tue28, 14:15-15:30	S-TuePm-4-2
Czaplewska, Ewa	logec&univ.gda.pl	Tue28, 10:45-13:00	P-TueAm-47
D	email address	Date/Time	ID
Dando, Coral	c.dando&lancaster.ac.uk	Mon27, 14:15-15:45	R-MonPm-6-1
de Gracia, Veronica Caban	caban.v@gmail.com	Mon27, 14:15-15:45	R-MonPm-2-4
DePrince, Anne	adeprince&psy.du.edu	Mon27, 10:45-12:00	S-MonAm-2-4
Dorahy, Martin	martin.dorahy&canterbury.ac.nz	Mon27, 10:45-12:00	S-MonAm-2-1
E	email address	Date/Time	ID
Echterhoff, Gerald	g.echterhoff&jacobs-university.de	Tue28, 10:45-12:00	S-TueAm-4-3
Engelhard, Iris M.	I.M.Engelhard&uu.nl	Wed29, 10:45-12:00	S-WedAm-2-1
Engle, Randall	randallengle&earthlink.net	Tue28, 17:30-18:30	Key-TueEv-1
Etches, Richard B.	r.b.etches&leeds.ac.uk	Tue28, 14:15-15:30	S-TuePm-2-1
F	email address	Date/Time	ID
Fernandes, Marcelle	372252&swansea.ac.uk	Tue28, 10:45-13:00	P-TueAm-31

ID Legend: Key = keynote, P = poster, PS = plenary session, R = regular session, & S = symposium

Fine, Cordelia	cfine@unimelb.edu.au	Mon27, 17:30-18:30	Key-MonEv-1
Finnbogadottir, Hildur	hildur&psy.au.dk	Tue28, 10:45-13:00	P-TueAm-17
Fiore, Steve	sfiore&ist.ucf.edu	Mon27, 16:00-17:15	PS-MonPm-0
Fohn, Adeline	adeline.fohn@uclouvain.be	Wed29, 13:00-14:15	R-WedPm-2-4
Foster, Jeffrey L.	jeffrey.foster@vuw.ac.nz	Wed29, 10:45-12:00	S-WedAm-6-4
French, Lauren Y.	lyfrench@gmail.com	Mon27, 14:15-15:45	S-MonPm-1-2
Fujisawa, Takashi X.	fujisawa@kwansei.ac.jp	Mon27, 14:15-15:45	S-MonPm-1-5
G	email address	Date/Time	ID
Gabbert, Fiona	f.gabbert@abertay.ac.uk	Wed29, 10:45-12:00	S-WedAm-1-4
Garry, Maryanne	maryannegarry@mac.com	Tue28, 16:15-17:15	PS-TuePm-0
Gawrylowicz, Julie	0706193@abertay.ac.uk	Tue28, 10:45-12:00	S-TueAm-1-1
Gehrke, Juergen	jg189@le.ac.uk	Wed29, 14:45-16:00	R-WedPm-11-4
Geraerts, Elke	e.geraerts@psychology.unimaas.nl	Wed29, 10:45-12:00	S-WedAm-2-0
Geraerts, Elke	e.geraerts@psychology.unimaas.nl	Wed29, 10:45-12:00	S-WedAm-2-4
Gerrie, Matthew P.	matthew.gerrie@vuw.ac.nz	Tue28, 10:45-12:00	S-TueAm-1-2
Gondo, Yasuyuki	ygondo@hus.osaka-u.ac.jp	Mon27, 10:45-12:00	S-MonAm-4-1
Goodman-Delahunty, Jane	jdelahunty@csu.edu.au	Wed29, 10:45-12:00	R-WedAm-5-4
Goto, Nobuhiko	goto@nagoya-u.jp	Tue28, 13:45-16:15	P-TuePm-70
Grisham, Jessica R.	jgrisham@psy.unsw.edu.au	Tue28, 14:15-15:30	S-TuePm-2-2
Gross, Julien	jules@psy.otago.ac.nz	Tue28, 13:45-16:15	P-TuePm-10
H	email address	Date/Time	ID
Hamada, Sumio	s-hamad@mwb.biglobe.ne.jp	Wed29, 16:15-17:45	PS-WedPm-1
Hamajima, Hideaki	hamajima@rd6.so-net.ne.jp	Tue28, 10:45-13:00	P-TueAm-67
Hamamoto, Yuki	hpm0709@hcedu.fuhc.fukuyama-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-44
Hanayama, Aiko	snowing0806@yahoo.co.jp	Mon27, 14:15-15:45	S-MonPm-1-4
Hansen, Tia G. B.	tia@hum.aau.dk	Wed29, 10:45-12:00	S-WedAm-4-4
Hara, Satoshi	shara@surugadai.ac.jp	Wed29, 16:15-17:45	PS-WedPm-4
Hara, Yuuki	yuki.hara.en@hitachi.com	Mon27, 10:45-12:00	S-MonAm-4-4
Harada, Eriko	eriko@a6.rimnet.ne.jp	Tue28, 10:45-13:00	P-TueAm-45
Harada, Etsuko T.	etharada@hosei.ac.jp	Mon27, 10:45-12:00	S-MonAm-4-0
Harada, Etsuko T.	etharada@hosei.ac.jp	Mon27, 10:45-12:00	S-MonAm-4-5
Harada, Etsuko T.	etharada@hosei.ac.jp	Wed29, 13:00-14:15	R-WedPm-4-0
Harris, Celia	charris@maccs.mq.edu.au	Mon27, 09:00-10:30	PS-MonAm-3
Harris, Celia	charris@maccs.mq.edu.au	Tue28, 10:45-12:00	S-TueAm-4-2
Hartwig, Maria	mhartwig@jjay.cuny.edu	Tue28, 14:15-15:30	S-TuePm-3-4
Hattori, Yosuke	hattori.yosuke@c.mbox.nagoya-u.ac.jp	Mon27, 10:45-12:00	S-MonAm-2-5
Hayashi, Mitsuko	mihayash@ed.tokyo-fukushi.ac.jp	Wed29, 14:45-16:00	R-WedPm-12-4
Hayne, Harlene	hayne@psy.otago.ac.nz	Mon27, 17:30-18:30	Key-MonEv-0
Hayne, Harlene	hayne@psy.otago.ac.nz	Tue28, 09:00-10:30	PS-TueAm-0
Hayne, Harlene	hayne@psy.otago.ac.nz	Tue28, 09:00-10:30	PS-TueAm-2
Henkel, Linda A.	LHenkel@mail.fairfield.edu	Wed29, 10:45-12:00	S-WedAm-6-2
Hertel, Paula	phertel@trinity.edu	Sun26, 17:00-18:00	Key-SunEv-1
Hertel, Paula	phertel@trinity.edu	Mon27, 09:00-10:30	PS-MonAm-0
Hessen, Joanna K.	hessen@uwindsor.ca	Tue28, 10:45-12:00	S-TueAm-6-1
Hilliar, Kirin	khilliar@psy.unsw.edu.au	Tue28, 14:15-15:30	S-TuePm-1-1
Hine, Kyoko	hine@psy.flet.keio.ac.jp	Tue28, 14:15-15:30	S-TuePm-1-5
Hira, Shinji	hira@fuhc.fukuyama-u.ac.jp	Wed29, 10:45-12:00	S-WedAm-3-0
Hira, Shinji	hira@fuhc.fukuyama-u.ac.jp	Wed29, 10:45-12:00	S-WedAm-3-4
Hirota, Akihisa	hirota@nriips.go.jp	Wed29, 10:45-12:00	S-WedAm-3-1
Hirst, William	hirst@newschool.edu	Tue28, 10:45-12:00	S-TueAm-4-0
Hirst, William	hirst@newschool.edu	Wed29, 10:45-12:00	S-WedAm-4-1
Holmes, Emily A.	emily.holmes@psych.ox.ac.uk	Sun26, 17:00-18:00	Key-SunEv-0
Holmes, Emily A.	emily.holmes@psych.ox.ac.uk	Mon27, 09:00-10:30	PS-MonAm-1
Holmes, Emily A.	emily.holmes@psych.ox.ac.uk	Wed29, 10:45-12:00	S-WedAm-2-5

ID Legend: Key = keynote, P = poster, PS = plenary session, R = regular session, & S = symposium

Honma, Yoshiko	honma.yoshiko@a.mbox.nagoya-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-38
Hope, Lorraine	Lorraine.Hope@port.ac.uk	Wed29, 09:00-10:30	PS-WedAm-2
Horry, Ruth	r.horry@sussex.ac.uk	Wed29, 14:45-16:00	R-WedPm-11-1
Hoshi, Yuuichiro	y.hoshi&gs-hmn.hosei.ac.jp	Tue28, 13:45-16:15	P-TuePm-36
Hotta, Chie	chie_hotta@yahoo.co.jp	Tue28, 13:45-16:15	P-TuePm-32
Howe, Mark	mark.howe@lancaster.ac.uk	Tue28, 09:00-10:30	PS-TueAm-3
Howe, Mark	mark.howe@lancaster.ac.uk	Tue28, 10:45-13:00	P-TueAm-51
Howie, Pauline	paulineh@psych.usyd.edu.au	Wed29, 13:00-14:15	R-WedPm-6-3
Hung, Lynette	lynette@unsw.edu.au	Mon27, 14:15-15:45	R-MonPm-2-3
Huntjens, Rafaele	R.J.C.Huntjens@rug.nl	Mon27, 10:45-12:00	S-MonAm-2-0
Huntjens, Rafaele	R.J.C.Huntjens@rug.nl	Mon27, 10:45-12:00	S-MonAm-2-5
Huntjens, Rafaele	R.J.C.Huntjens@rug.nl	Wed29, 10:45-12:00	S-WedAm-2-2
I	email address	Date/Time	ID
Iida, Saea	iida.saea@a.mbox.nagoya-u.ac.jp	Mon27, 14:15-15:45	R-MonPm-2-1
Ikeda, Kazuhiro	kikeda27@sal.tohoku.ac.jp	Wed29, 14:45-16:00	R-WedPm-14-3
Ikeda, Kenji	a21nas@yahoo.co.jp	Tue28, 10:45-13:00	P-TueAm-61
Imai, Hisato	hisato@lab.twcu.ac.jp	Mon27, 14:15-15:45	R-MonPm-5-0
Imai, Hisato	hisato@lab.twcu.ac.jp	Tue28, 13:45-16:15	P-TuePm-76
Inoue, Kazuya	inoue421@human.tsukuba.ac.jp	Tue28, 13:45-16:15	P-TuePm-28
Inoue, Tomoyoshi	tinoue@mail.doshisha.ac.jp	Mon27, 14:15-15:45	R-MonPm-4-0
Iseki, Ryuta	riseki@human.tsukuba.ac.jp	Tue28, 10:45-13:00	P-TueAm-59
Ishimatsu, Kazuma	ishimatsu@h.jniosh.go.jp	Mon27, 10:45-12:00	S-MonAm-4-3
Ito, Hiroshi	hito@vega.aichi-u.ac.jp	Wed29, 14:45-16:00	R-WedPm-13-3
Itoh, Mariko	mito@human.tsukuba.ac.jp	Tue28, 10:45-13:00	P-TueAm-43
Itoh, Yuji	yitoh@flet.keio.ac.jp	Mon27, 10:45-12:00	R-MonAm-5-2
Itoh, Yuji	yitoh@flet.keio.ac.jp	Wed29, 10:45-12:00	R-WedAm-5-0
Itsukushima, Yukio	yukioi&chs.nihon-u.ac.jp	Mon27, 13:00-14:00	Key-MonPm-0
Itsukushima, Yukio	yukioi&chs.nihon-u.ac.jp	Tue28, 14:15-15:30	R-TuePm-5-0
Itsukushima, Yukio	yukioi&chs.nihon-u.ac.jp	Wed29, 16:15-17:45	PS-WedPm-3
Iwakura, Nozomi	iwakura&gs-hmn.hosei.ac.jp	Tue28, 13:45-16:15	P-TuePm-12
Iwanaga, Mio	iwaiwa-30@hiroshima-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-08
J	email address	Date/Time	ID
Jamieson, Kat	k.jamieson@abertay.ac.uk	Wed29, 10:45-12:00	S-WedAm-1-2
Janssen, Steve M. J.	steve.janssen@duke.edu	Wed29, 14:45-16:00	R-WedPm-15-4
Joslyn, Susan	susanj@u.washington.edu	Tue28, 13:45-16:15	P-TuePm-66
K	email address	Date/Time	ID
Kaczorowska-Bray, Katarzyna	logkk@ug.edu.pl	Tue28, 10:45-13:00	P-TueAm-63
Kageyama, Nozomu	nozomunka@rose.sannet.ne.jp	Tue28, 10:45-13:00	P-TueAm-35
Kalmet, Natalie	natalie.kalmet@gmail.com	Wed29, 13:00-14:15	R-WedPm-3-3
Kamigaki, Akiko	kamigaki_a@yahoo.co.jp	Tue28, 13:45-16:15	P-TuePm-56
Kawaguchi, Jun	kawaguchijun@nagoya-u.jp	Mon27, 10:45-12:00	R-MonAm-5-0
Kawaguchi, Jun	kawaguchijun@nagoya-u.jp	Wed29, 13:00-14:15	R-WedPm-5-4
Kawahira, Kyoko	kyoko305@hotmail.co.jp	Tue28, 10:45-13:00	P-TueAm-73
Kawasaki, Yayoi	yayoi@iris.dti.ne.jp	Wed29, 10:45-12:00	S-WedAm-6-5
Kawashima, Ryuta	ryuta@idac.tohoku.ac.jp	Mon27, 13:00-14:00	Key-MonPm-1
Kemp, Richard	Richard.kemp@unsw.edu.au	Tue28, 10:45-12:00	S-TueAm-3-5
Kemp, Richard	Richard.kemp@unsw.edu.au	Wed29, 10:45-12:00	S-WedAm-1-5
Kemps, Eva	Eva.Kemps@flinders.edu.au	Mon27, 14:15-15:45	R-MonPm-2-2
Khan, Azizuddin	khanaziz@iitb.ac.in	Mon27, 14:15-15:45	R-MonPm-3-4
Kidoguchi, Hideki	cognitivelinguist@yahoo.co.jp	Mon27, 10:45-12:00	R-MonAm-5-3
Kikuchi, Fumitoshi	kikuchi@sal.tohoku.ac.jp	Tue28, 10:45-13:00	P-TueAm-65
Kitagami, Shinji	kitagami@cc.nagoya-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-30
Kobayashi, Masanori	kobayashi@beck.c.u-tokyo.ac.jp	Tue28, 10:45-13:00	P-TueAm-03
Koh, Jessie Bee Kim	bk94@cornell.edu	Mon27, 14:15-15:45	R-MonPm-4-4

ID Legend: Key = keynote, P = poster, PS = plenary session, R = regular session, & S = symposium

Komatsu, Sahoko	sahoko&psycho.hes.kyushu-u.ac.jp	Mon27, 14:15-15:45	R-MonPm-5-3
Komori, Masashi	komori&isc.osakac.ac.jp	Mon27, 14:15-15:45	R-MonPm-5-4
Kondo, Aya	ayayayaya&hiroshima-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-22
Koppel, Jonathan	koppj716&newschool.edu	Tue28, 10:45-12:00	S-TueAm-4-4
Kotozaki, Yuka	ktzk-yk&cog.is.tohoku.ac.jp	Tue28, 10:45-13:00	P-TueAm-07
Krans, Julie	J.Krans&psych.ru.nl	Tue28, 10:45-12:00	S-TueAm-2-4
Kubo, Kenta	kubokenn&hiroshima-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-40
Kumar, Poornima	Poornima.Kumar&psych.ox.ac.uk	Tue28, 13:45-16:15	P-TuePm-74
Kunimi, Mitsunobu	kunimi&jindai.ac.jp	Tue28, 13:45-16:15	P-TuePm-04
Kurazumi, Tomoe	tomok0001&yahoo.co.jp	Tue28, 10:45-13:00	P-TueAm-29
Kurita, Satoko	satokokrt&gmail.com	Wed29, 14:45-16:00	R-WedPm-16-1
Kurita, Tokika	t.kurita&fx5.ecs.kyoto-u.ac.jp	Tue28, 10:45-12:00	R-TueAm-5-4
Kurosawa, Kaoru	kk691&columbia.edu	Mon27, 14:15-15:45	R-MonPm-6-0
Kurosawa, Kaoru	kk691&columbia.edu	Wed29, 16:15-17:45	PS-WedPm-0
Kusumi, Takashi	kusumi&educ.kyoto-u.ac.jp	Mon27, 10:45-12:00	S-MonAm-4-2
Kusumi, Takashi	kusumi&educ.kyoto-u.ac.jp	Tue28, 10:45-12:00	R-TueAm-5-0
L	email address	Date/Time	ID
Lang, Tamara J.	Tamara.Lang&psych.ox.ac.uk	Wed29, 10:45-12:00	S-WedAm-2-3
Leach, Amy-May	amy.leach&uoit.ca	Tue28, 14:15-15:30	S-TuePm-3-0
Leach, Amy-May	amy.leach&uoit.ca	Tue28, 14:15-15:30	S-TuePm-3-5
Leal, Sharon	Sharon.Leal&port.ac.uk	Tue28, 14:15-15:30	S-TuePm-3-3
Lechowicz, Meryn	mlec6609&mail.usyd.edu.au	Tue28, 13:45-16:15	P-TuePm-18
Lee, Peter J.	pjlee&ualberta.ca	Wed29, 14:45-16:00	R-WedPm-14-5
Lepe Garza, Alberto	lepe&cog.human.nagoya-u.ac.jp	Wed29, 14:45-16:00	R-WedPm-15-2
Li, Zongfeng	li&cog.human.nagoya-u.ac.jp	Wed29, 14:45-16:00	R-WedPm-15-3
Liikkanen, Lassi A.	lassi.liikkanen&hiit.fi	Wed29, 14:45-16:00	R-WedPm-13-2
Lindsay, Rod	rod.lindsay&queensu.ca	Mon27, 10:45-12:00	S-MonAm-6-5
Lindsay, Rod	rod.lindsay&queensu.ca	Wed29, 09:00-10:30	PS-WedAm-4
Lindsay, Rod	rod.lindsay&queensu.ca	Wed29, 09:00-10:30	PS-WedAm-6
Lindsay, Stephen	slindsay&uvic.ca	Mon27, 10:45-12:00	S-MonAm-1-5
Lindsay, Stephen	slindsay&uvic.ca	Wed29, 13:00-14:15	R-WedPm-1-5
Lindsay, Stephen	slindsay&uvic.ca	Wed29, 14:45-16:00	R-WedPm-11-0
Loftus, Geoffrey	gloftus&u.washington.edu	Tue28, 16:15-17:15	PS-TuePm-1
Logan, Jessica M.	Jessica.Logan&rice.edu	Wed29, 14:45-16:00	R-WedPm-12-1
Lorber, William	bill.lorber&yahoo.com	Tue28, 14:15-15:30	S-TuePm-6-4
Luminet, Olivier	Olivier.Luminet&uclouvain.be	Tue28, 14:15-15:30	S-TuePm-4-0
Luminet, Olivier	Olivier.Luminet&uclouvain.be	Tue28, 14:15-15:30	S-TuePm-4-1
M	email address	Date/Time	ID
MacLean, Carla L.	carlamac&uvic.ca	Tue28, 14:15-15:30	R-TuePm-5-1
MacLeod, Malcolm D.	mdm&st-and.ac.uk	Tue28, 10:45-13:00	P-TueAm-25
Malik, Aiysha	aiysha.malik&psych.ox.ac.uk	Tue28, 14:15-15:30	S-TuePm-2-3
Manalo, Emmanuel	e.manalo&auckland.ac.nz	Wed29, 13:00-14:15	R-WedPm-5-1
Mann, Samantha	Samantha.Mann&port.ac.uk	Tue28, 14:15-15:30	S-TuePm-3-2
Mansour, Jamal K.	4jkm&queensu.ca	Wed29, 13:00-14:15	R-WedPm-3-2
Maruyama, Manami	maruyama&mie-chukyo-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-52
Masuda, Sayako	masuda.s&flet.keio.ac.jp	Tue28, 13:45-16:15	P-TuePm-72
Matsuda, Emi	matsuda&psych.let.hokudai.ac.jp	Wed29, 13:00-14:15	R-WedPm-6-4
Matsuda, Izumi	izumi&nrips.go.jp	Mon27, 10:45-12:00	S-MonAm-3-1
Matsuda, Ken	matsuken&yamaguchi-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-62
Matsuda, Takashi	takashi7&stu.kanazawa-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-20
Matsuda, Yukihisa	yukiy2001&hotmail.com	Tue28, 13:45-16:15	P-TuePm-60
Matsumoto, Eriko	ermatsu&kobe-u.ac.jp	Mon27, 14:15-15:45	R-MonPm-4-3
Matsuo, Kayo	rainbow_nabistar&hotmail.com	Tue28, 13:45-16:15	P-TuePm-16
Matsuzawa, Tetsuro	matsuzaw&pri.kyoto-u.ac.jp	Tue28, 13:00-14:00	Key-TuePm-1

ID Legend: Key = keynote, P = poster, PS = plenary session, R = regular session, & S = symposium

McIlwain, Doris	dmcilwai&psy.mq.edu.au	Wed29, 13:00-14:15	R-WedPm-4-3
Meijer, Ewout	Eh.Meijer&PSYCHOLOGY.unimaas.nl	Mon27, 10:45-12:00	S-MonAm-3-0
Meijer, Ewout	Eh.Meijer&PSYCHOLOGY.unimaas.nl	Mon27, 10:45-12:00	S-MonAm-3-3
Meksin, Robert	Meksin@gmail.com	Tue28, 14:15-15:30	S-TuePm-4-4
Melnyk, Laura	laura&uwo.ca	Wed29, 14:45-16:00	R-WedPm-11-2
Mendoza, Kevin	kmendoza18_&hotmail.com	Wed29, 14:45-16:00	R-WedPm-15-1
Meyer, Ashley N.D.	anm1&rice.edu	Mon27, 14:15-15:45	R-MonPm-6-4
Miles, Amanda N.	amanda&psy.au.dk	Wed29, 14:45-16:00	R-WedPm-14-4
Miura, Hiroshi	hiroshi9&f7.dion.ne.jp	Tue28, 13:45-16:15	P-TuePm-42
Miwa, Tomoko	miwa&psych.let.hokudai.ac.jp	Wed29, 13:00-14:15	R-WedPm-6-1
Miyazawa, Shiho	miyazawa&shokei.ac.jp	Tue28, 10:45-13:00	P-TueAm-15
Mizutani, Mitsuyoshi	mimimi&canvas.ne.jp	Mon27, 14:15-15:45	R-MonPm-3-2
Mochizuki, Masaya	mochi-ma&chs.nihon-u.ac.jp	Tue28, 10:45-13:00	P-TueAm-23
Mori, Kazuo	kaz-mori&cc.tuat.ac.jp	Mon27, 14:15-15:45	S-MonPm-1-0
Mori, Kazuo	kaz-mori&cc.tuat.ac.jp	Mon27, 14:15-15:45	S-MonPm-1-1
Mori, Kazuo	kaz-mori&cc.tuat.ac.jp	Tue28, 13:00-14:00	Key-TuePm-0
Mori, Naohisa	morichan&sgu.ac.jp	Mon27, 14:15-15:45	R-MonPm-6-3
Morrison, Catriona M.	c.morrison&leeds.ac.uk	Tue28, 09:00-10:30	PS-TueAm-4
Morrison, Catriona M.	c.morrison&leeds.ac.uk	Wed29, 13:00-14:15	R-WedPm-5-5
Moulds, Michelle	mmoulds&psy.unsw.edu.au	Mon27, 09:00-10:30	PS-MonAm-4
Moulds, Michelle	mmoulds&psy.unsw.edu.au	Tue28, 10:45-12:01	S-TueAm-2-5
Mukai, Akira	mukai&takamatsu-u.ac.jp	Tue28, 10:45-13:00	P-TueAm-05
Muroi, Miya	threenights&mwc.biglobe.ne.jp	Tue28, 13:45-16:15	P-TuePm-06
Muroi, Miya	threenights&mwc.biglobe.ne.jp	Wed29, 13:00-14:15	R-WedPm-2-0
N	email address	Date/Time	ID
Nabeta, Tomohiro	nabeta&educ.kyoto-u.ac.jp	Tue28, 10:45-12:00	S-TueAm-6-5
Nagaoka, Chika	nagaoka&educ.kyoto-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-68
Nagesh, Ambika	ambika.nagesh&flinders.edu.au	Mon27, 10:45-12:00	S-MonAm-1-3
Naka, Makiko	mnaka&psych.let.hokudai.ac.jp	Tue28, 10:45-12:00	S-TueAm-3-3
Naka, Makiko	mnaka&psych.let.hokudai.ac.jp	Wed29, 13:00-14:15	R-WedPm-6-0
Nakai, Yasushi	yasnakai1025&yahoo.co.jp	Mon27, 14:15-15:45	R-MonPm-2-5
Nakayama, Tomonori	oc054004&grad.tamacc.chuo-u.ac.jp	Wed29, 13:00-14:15	R-WedPm-1-4
Nash, Robert A.	R.Nash&warwick.ac.uk	Wed29, 10:45-12:00	S-WedAm-6-0
Nash, Robert A.	R.Nash&warwick.ac.uk	Wed29, 10:45-12:00	S-WedAm-6-3
Nee, Claire	claire.nee&port.ac.uk	Wed29, 13:00-14:15	R-WedPm-3-1
Ness, Hayley	h.ness&napier.ac.uk	Tue28, 10:45-12:00	S-TueAm-1-3
Newman, Eryn J.	eryn.newman&vuw.ac.nz	Wed29, 10:45-12:00	S-WedAm-6-1
Nielson, Kristy A.	kristy.nielson&marquette.edu	Tue28, 14:15-15:30	S-TuePm-6-5
Nihei, Yoshiaki	nihei&sal.tohoku.ac.jp	Wed29, 13:00-14:15	R-WedPm-3-0
Nihei, Yoshiaki	nihei&sal.tohoku.ac.jp	Wed29, 14:45-16:00	R-WedPm-11-5
Nittono, Hiroshi	nittono&hiroshima-u.ac.jp	Mon27, 14:15-15:45	R-MonPm-3-0
Nittono, Hiroshi	nittono&hiroshima-u.ac.jp	Wed29, 10:45-12:00	S-WedAm-3-0
Nittono, Hiroshi	nittono&hiroshima-u.ac.jp	Wed29, 14:45-16:00	R-WedPm-12-2
Nomura, Mitsue	nomurami.541&gmail.com	Tue28, 13:45-16:15	P-TuePm-64
Nourkova, Veronika	V.nourkova&mail.ru	Wed29, 10:45-12:00	S-WedAm-4-2
O	email address	Date/Time	ID
Ogawa, Tokihiro	t-ogawa&nrips.go.jp	Wed29, 10:45-12:00	S-WedAm-3-2
Ohgami, Yuko	ohgami&wayo.ac.jp	Tue28, 13:45-16:15	P-TuePm-48
Ojima, Yukari	ojima.yukari&d.mbox.nagoya-u.ac.jp	Tue28, 10:45-13:00	P-TueAm-21
Okazaki, Yoshihiro	kansha_no_kokoro&yahoo.co.jp	Tue28, 10:45-13:00	P-TueAm-49
Ormerod, Thomas C.	t.ormerod&lancaster.ac.uk	Tue28, 14:15-15:30	R-TuePm-5-4
Osugi, Akemi	akemiosugi-74&ch-i.jp	Mon27, 14:15-15:45	R-MonPm-3-3
Otgaar, Henry	Henry.Otgaar&PSYCHOLOGY.unimaas.nl	Tue28, 10:45-12:00	S-TueAm-6-2
Otsuka, Takuro	takuro&rf6.so-net.ne.jp	Wed29, 10:45-12:00	S-WedAm-3-3

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P	email address	Date/Time	ID
Paterson, Helen	helenp&psych.usyd.edu.au	Wed29, 10:45-12:00	S-WedAm-1-0
Paterson, Helen	helenp&psych.usyd.edu.au	Wed29, 10:45-12:00	S-WedAm-1-3
Pezdek, Kathy	Kathy.Pezdek&cgu.edu	Wed29, 10:45-12:00	R-WedAm-5-3
Pezdek, Kathy	Kathy.Pezdek&cgu.edu	Wed29, 14:45-16:00	R-WedPm-14-0
Pike, Graham	G.E.Pike&open.ac.uk	Tue28, 10:45-12:00	S-TueAm-1-0
Pike, Graham	G.E.Pike&open.ac.uk	Tue28, 10:45-12:00	S-TueAm-1-4
Polage, Danielle C.	polaged&cwu.edu	Mon27, 14:15-15:45	R-MonPm-6-5
Polaschek, Devon	devon.polaschek&vwu.ac.nz	Mon27, 09:00-10:30	PS-MonAm-2
Polaschek, Devon	devon.polaschek&vwu.ac.nz	Tue28, 17:30-18:30	Key-TueEv-0
Potvin, Marie-Julie	potvin.marie_julie&courrier.uqam.ca	Tue28, 13:45-16:15	P-TuePm-02
Powell, Martine	martine.powell&deakin.edu.au	Tue28, 10:45-12:00	S-TueAm-3-1
Powell, Martine	martine.powell&deakin.edu.au	Wed29, 14:45-16:00	R-WedPm-13-0
R	email address	Date/Time	ID
Rasmussen, Anne S.	annsr&psy.au.dk	Wed29, 13:00-14:15	R-WedPm-4-5
Read, Don	jdonread&sfu.ca	Mon27, 09:00-10:30	PS-MonAm-5
Read, Don	jdonread&sfu.ca	Tue28, 10:45-12:00	R-TueAm-5-3
Read, Don	jdonread&sfu.ca	Wed29, 14:45-16:00	R-WedPm-16-0
Reinecke, Andrea	andrea.reinecke&psych.ox.ac.uk	Tue28, 10:45-12:00	S-TueAm-2-2
Reinitz, Mark T.	mreinitz&ups.edu	Mon27, 14:15-15:45	R-MonPm-3-1
Rendell, Peter G.	peter.rendell&acu.edu.au	Mon27, 14:15-15:45	R-MonPm-3-5
Reppa, Irene	i.reppa&swansea.ac.uk	Tue28, 10:45-12:00	R-TueAm-5-1
Roos af Hjemsater, Emma	emma.roos&psy.gu.se	Wed29, 13:00-14:15	R-WedPm-6-2
Rouleau, Isabelle	rouleau.isabelle&uqam.ca	Tue28, 13:45-16:15	P-TuePm-26
S	email address	Date/Time	ID
Saito, Hirofumi	saito&is.nagoya-u.ac.jp	Mon27, 14:15-15:45	R-MonPm-2-0
Saito, Hirofumi	saito&is.nagoya-u.ac.jp	Wed29, 14:45-16:00	R-WedPm-13-5
Sakuma, Naoko	sakuma&tmig.or.jp	Tue28, 13:45-16:15	P-TuePm-46
Sakuma, Yasuyuki	ysakuma&educ.fukushima-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-14
Sakurai, Yoshio	ysakurai&bun.kyoto-u.ac.jp	Mon27, 16:00-17:15	PS-MonPm-1
Salim, Roxanna	roxanna.salim&gmail.com	Wed29, 13:00-14:15	R-WedPm-2-5
Sandham, Alex	a.sandham&lancaster.ac.uk	Wed29, 10:45-12:00	R-WedAm-5-2
Sasaki, Rie	riel12083&yahoo.co.jp	Wed29, 10:45-12:00	R-WedAm-5-5
Sasaki, Takashi	sasataka&2001.jukuin.keio.ac.jp	Wed29, 14:45-16:00	R-WedPm-12-3
Sato, Taku	takus&sal.tohoku.ac.jp	Wed29, 13:00-14:15	R-WedPm-3-4
Sato, Tomomi	g0770308&edu.cc.ocha.ac.jp	Tue28, 10:45-13:00	P-TueAm-53
Sauer, James	james.sauer&port.ac.uk	Mon27, 10:45-12:00	S-MonAm-1-1
Saunders, Jo	J.Saunders&swansea.ac.uk	Mon27, 10:45-12:00	R-MonAm-5-4
Saykaly, Christine	Christine.saykaly&mail.mcgill.ca	Mon27, 10:45-12:00	S-MonAm-6-2
Scoboria, Alan	scoboria&uwindsor.ca	Tue28, 10:45-12:00	S-TueAm-6-0
Scoboria, Alan	scoboria&uwindsor.ca	Tue28, 14:15-15:30	S-TuePm-6-3
Semmler, Carolyn	carolyn.semmler&adelaide.edu.au	Mon27, 10:45-12:00	S-MonAm-1-2
Semmler, Carolyn	carolyn.semmler&adelaide.edu.au	Wed29, 09:00-10:30	PS-WedAm-0
Shapero, Dana	shapero&uwindsor.ca	Tue28, 10:45-12:00	S-TueAm-6-4
Sherman, Sue M.	s.m.sherman&psy.keele.ac.uk	Tue28, 10:45-12:00	R-TueAm-5-2
Shigemori, Masayoshi	gemo&h9.dion.ne.jp	Tue28, 10:45-13:00	P-TueAm-13
Shimizu, Takayuki	t.shimizu&cog.human.nagoya-u.ac.jp	Wed29, 14:45-16:00	R-WedPm-13-4
Shimojima, Yumi	shimoji&ks.kyorin-u.ac.jp	Wed29, 13:00-14:15	R-WedPm-4-4
Shinohara, Kazumitsu	sinohara&hus.osaka-u.ac.jp	Tue28, 10:45-13:00	P-TueAm-69
Shiraishi, Hiroaki	hshiraishi&psych.let.hokudai.ac.jp	Wed29, 14:45-16:00	R-WedPm-16-2
Shorr, Daniel J.	dshorr&gatech.edu	Tue28, 14:15-15:30	R-TuePm-5-5
Sobo, Yuki	s0b01o12&yahoo.co.jp	Tue28, 10:45-12:00	S-TueAm-1-5
Speed, Ann	aespeed&sandia.gov	Wed29, 13:00-14:15	R-WedPm-2-1
Stone, Charles B.	charlie.stone&gmail.com	Tue28, 10:45-12:00	S-TueAm-4-5

ID Legend: Key = keynote, P = poster, PS = plenary session, R = regular session, & S = symposium

Strange, Deryn	derynstrange&mac.com	Tue28, 14:15-15:30	S-TuePm-6-0
Strange, Deryn	derynstrange&mac.com	Tue28, 14:15-15:30	S-TuePm-6-2
Suto, Noboru	suto&L.chiba-u.ac.jp	Tue28, 10:45-12:00	R-TueAm-5-5
Sutton, John	jsutton&maccs.mq.edu.au	Tue28, 10:45-12:00	S-TueAm-4-1
T	email address	Date/Time	ID
Tabata, Naoya	nao-tabata&human.tsukuba.ac.jp	Mon27, 14:15-15:45	R-MonPm-4-2
Takagi, Kotaro	tkg&si.aoyama.ac.jp	Wed29, 16:15-17:45	PS-WedPm-2
Takahashi, Masanobu	mtakahas&u-sacred-heart.ac.jp	Wed29, 13:00-14:15	R-WedPm-1-0
Takahashi, Masanobu	mtakahas&u-sacred-heart.ac.jp	Wed29, 14:45-16:00	R-WedPm-11-3
Takarangi, Melanie	mkttl&leicester.ac.uk	Tue28, 14:15-15:30	S-TuePm-6-1
Takigawa, Shinya	stakigawa&psych.let.hokudai.ac.jp	Wed29, 13:00-14:15	R-WedPm-5-3
Talarico, Jennifer	talaricj&lafayette.edu	Tue28, 14:15-15:30	S-TuePm-4-3
Talwar, Victoria	victoria.talwar&mcgill.ca	Mon27, 10:45-12:00	S-MonAm-6-0
Talwar, Victoria	victoria.talwar&mcgill.ca	Mon27, 10:45-12:00	S-MonAm-6-3
Tamada, Keisaku	block-t&cameo.plala.or.jp	Tue28, 14:15-15:30	R-TuePm-5-2
Tamayo, Ricardo	tamayar&gmail.com	Tue28, 13:45-16:15	P-TuePm-58
Tanaka, Mio	miotmio&chs.nihon-u.ac.jp	Wed29, 13:00-14:15	R-WedPm-1-1
Thomas, Ayanna K.	ayanna.thomas&tufts.edu	Mon27, 10:45-12:00	R-MonAm-5-5
Toglia, Mike	m.toglia&unf.edu	Wed29, 13:00-14:15	R-WedPm-1-2
Toglia, Mike	m.toglia&unf.edu	Wed29, 14:45-16:00	R-WedPm-15-0
Tsuneoka, Michiko	michiko&l.u-tokyo.ac.jp	Tue28, 13:45-16:15	P-TuePm-24
Turner, Jim	J.A.J.Turner&open.ac.uk	Tue28, 14:15-15:30	S-TuePm-1-3
U	email address	Date/Time	ID
Uchida, Akitoshi	a-uchida&jh.nagano-ngn.ed.jp	Mon27, 14:15-15:45	S-MonPm-1-3
Uemiya, Ai	grh803au&kc.kobe-c.ac.jp	Mon27, 14:15-15:45	R-MonPm-6-2
Ueno, Daisuke	daisuke&rinro5.hus.osaka-u.ac.jp	Tue28, 10:45-13:00	P-TueAm-27
Ueno, Makoto	makoto909@hotmail.com	Tue28, 10:45-13:00	P-TueAm-41
Uesaka, Yuri	yuri.uesaka&gmail.com	Tue28, 14:15-15:30	R-TuePm-5-3
Uesaka, Yuri	yuri.uesaka&gmail.com	Wed29, 13:00-14:15	R-WedPm-5-0
Uttl, Bob	uttlbob&gmail.com	Mon27, 14:15-15:45	R-MonPm-5-2
Uzer, Tugba	uzer&ualberta.ca	Wed29, 14:45-16:00	R-WedPm-14-2
V	email address	Date/Time	ID
van Golde, Celine	c.vangolde&alumni.unimaas.nl	Tue28, 13:45-16:15	P-TuePm-50
van Wees-Cieraad, Rineke	r.van.wees&rug.nl	Tue28, 13:45-16:15	P-TuePm-34
Vanags, Thea	thea.vanags&canberra.edu.au	Mon27, 10:45-12:00	R-MonAm-5-1
Vermeulen, Nicolas	nicolas.vermeulen&uclouvain.be	Tue28, 10:45-13:00	P-TueAm-39
Verschuere, Bruno	Bruno.verschuere&ugent.be	Mon27, 10:45-12:00	S-MonAm-3-0
Verschuere, Bruno	Bruno.verschuere&ugent.be	Mon27, 10:45-12:00	S-MonAm-3-2
Verwoerd, Johan	J.R.L.Verwoerd&rug.nl	Mon27, 10:45-12:00	S-MonAm-2-3
Vrij, Aldert	aldert.vrij&port.ac.uk	Mon27, 10:45-12:00	S-MonAm-3-5
Vrij, Aldert	aldert.vrij&port.ac.uk	Tue28, 10:45-12:00	S-TueAm-3-0
Vrij, Aldert	aldert.vrij&port.ac.uk	Tue28, 14:15-15:30	S-TuePm-3-1
W	email address	Date/Time	ID
Wakebe, Toshihiro	wakebe&L.u-tokyo.ac.jp	Tue28, 10:45-13:00	P-TueAm-55
Wang, Qi	qw23&cornell.edu	Tue28, 09:00-10:30	PS-TueAm-1
Watamura, Eiichiro	eiichiro&l.u-tokyo.ac.jp	Tue28, 10:45-13:00	P-TueAm-33
Watanabe, Megumi	watanabe&ume-tree.info	Wed29, 13:00-14:15	R-WedPm-2-2
Williams, Emma	WilliamsEJ13&cardiff.ac.uk	Tue28, 10:45-13:00	P-TueAm-71
Williams, Shanna	shanna.williams&mail.mcgill.ca	Mon27, 10:45-12:00	S-MonAm-6-4
Williams, Sophie	325892&swan.ac.uk	Tue28, 10:45-13:00	P-TueAm-09
Williamson, Paul	paul.williamson&flinders.edu.au	Mon27, 10:45-12:00	S-MonAm-1-4
Worth, Eleri Rhian	e.r.worth&swansea.ac.uk	Tue28, 10:45-13:00	P-TueAm-01
Woud, Marcella L.	M.Woud&psych.ru.nl	Tue28, 10:45-12:00	S-TueAm-2-0
Woud, Marcella L.	M.Woud&psych.ru.nl	Tue28, 10:45-12:00	S-TueAm-2-3

ID Legend: Key = keynote, P = poster, PS = plenary session, R = regular session, & S = symposium

Wright, Daniel B.	dwright&fiu.edu	Wed29, 10:45-12:00	S-TuePm-4-5
Wright, Daniel B.	dwright&fiu.edu	Wed29, 10:45-12:00	S-WedAm-1-1
Wysman, Lauren	wysman&uwindsor.ca	Tue28, 10:45-12:00	S-TueAm-6-3
Y	email address	Date/Time	ID
Yaguchi, Yukiyasu	yukiyasu.yaguchi.9c&gs-hmn.hosei.ac.jp	Tue28, 10:45-13:00	P-TueAm-37
Yamada, Ryoma	ryom_cc&yahoo.co.jp	Tue28, 10:45-13:00	P-TueAm-57
Yamada, Yohei	yamada.yohei&b.mbox.nagoya-u.ac.jp	Tue28, 13:45-16:15	P-TuePm-54
Yoshimura, Takako	hytakako&kcc.zaq.ne.jp	Tue28, 10:45-13:00	P-TueAm-75
Z	email address	Date/Time	ID
Zajac, Rachel	rachelz&psy.otago.ac.nz	Wed29, 09:00-10:30	PS-WedAm-3
Zaragoza, Maria S.	mzaragoz&kent.edu	Tue28, 10:45-12:00	S-TueAm-3-2
Zarkadi, Theodora	Theodora.Zarkadi&warwick.ac.uk	Wed29, 13:00-14:15	R-WedPm-3-5
Ziniel, Sonja	sonja.ziniel&childrens.harvard.edu	Wed29, 13:00-14:15	R-WedPm-2-3

Please replace “&” with “@” for proper email addresses.