### SARMAC II: Toronto, July 1997

The second biennial meetings of SARMAC were held at Ryerson Polytechnic University in Toronto, July 11-13, 1997. The meeting coordinator was John Turtle.

#### **Abstracts**

### SUSAN BLUCK & LINDA J. LEVINE, University of California - Irvine *Hypermnesia in memory of an autobiographical event*

This study investigated whether hypermnesia occurred in recall of an indirectly experienced autobiographical event. Older and younger adults recalled what they remembered about the event in three interviews. Participants rated their reactions to the event, and the phenomenology of their memory. Findings indicate that hypermnesia is evident in recall of an indirectly experienced autobiographical event. The increase in recalled information over repeated interviews was due to the addition of new, veridical information. No age differences were found in the extent of hypermnesia, the amount or type of information recalled about the event, or the number of or type of errors made.

# JOHN C. BRIGHAM & ADINA W. WASSERMAN, Florida State University Cognitions, attitudes, and memory of African Americans and whites about the criminal trial of O.J. Simpson: A three-study set

Cognitions, attitudes and factual memory of Blacks and Whites were assessed as the Simpson trial began (Study 1), after closing arguments (Study 2), and after the verdict was returned (Study 3). Large racial differences and smaller gender differences occurred in all 3 studies. Blacks saw less system unfairness in Studies 2 and 3 than in Study 1 and their racial attitudes were more positive in Studies 2 and 3. Blacks' racial attitudes related to judgments of Simpson's culpability only in Study 1, whereas Whites' racial attitudes related to culpability judgments only in Study 3. A hindsight bias occurred for Whites.

### NORMAN R. BROWN, University of Alberta Facilitation and interference in the retrieval of autobiographical memories

This study concerns the effect of retrieval instructions on event cueing performance. Participants recalled personal events and then were timed as they responded to each cueing event by retrieving a second event. Narrative participants recalled another event from the same story as the cueing event; nonnarrative participants recalled an event related to the cueing event, but not part of the same story; neutral participants simply recalled related events. The narrative group responded faster (6.2 s) than the neutral group (8.1 s), who responded faster than the nonnarrative group (9.4 s) indicating that event memories are often embedded in narrative-like event clusters and that accessing one member of a cluster facilitates retrieval of others.

# ALAN BROWN, SUSAN HORNSTEIN, & AMINA MEMON, Southern Methodist University *Target monitoring*

Prior research has evaluated source monitoring (where you heard new information) but no research has examined target monitoring (who you tell new information). In two pilot studies, we had participants tell personal information to different celebrities on repeated encounters (over days), with instructions to avoid repeating the same information to the same person. Participants were moderately successful in avoiding repetitions, although this deteriorated over days. Future work is currently oriented toward integrating source and target monitoring into a more general "informational monitoring" framework.

### DARRYL BRUCE, St. Mary's University Input context and recognizing list and extralist words

False recognition of an extralist critical theme word that is associatively related to all words of a study list may be due to a failure of source monitoring at test time. To facilitate the process and thereby

reduce such false memories, study words were presented in a variety of visually and verbally distinctive contexts. Both types of context lowered false alarms to the nonpresented critical words. More impressively, the study contexts severely reduced the proportion of "Remember" relative to "Know" judgments associated with the false alarms. Impaired source monitoring as an explanation of such false memories is indicated.

# DEBORAH COLLINS, ROD LINDSAY, & LINDSAY HUDSON, Queen's University Dissociation, vividness of imagery, and source monitoring errors: Implications for repressed memories

Techniques such as guided visualization are sometimes used to recover memories. If source monitoring errors are made, however, recovered memories may originate in the visualization process. Vividness of visualization and dissociation may influence accuracy of source monitoring due to attenuation of differences between characteristics of real and imagined events. Measures of dissociation and imagery were administered and a source monitoring task was performed. There was a significant interaction between dissociation, vividness, and imagery of words. However, results fail to support the hypothesis that those high in dissociation and vividness of imagery are more likely to make source monitoring errors.

### DEB COREY & ROY S. MALPASS, University of Texas at El Paso Some problems in the mock witness paradigm

Attempts to extend the mock witness paradigm to evaluation of sequentially presented photospreads reveals several important problems. The Mock Witness technique has been used to assess the fairness of simultaneous lineups. A recent court case included a photospread where one descriptor was "squinted eyes" and the defendant's photo showed him blinking for the camera. Conventional evaluation shows this photospread to be extremely biased. We substituted alternative photographs of the defendant from police records, varied the form of the photospread (simultaneous vs. sequential presentation) and modified the verbal description. We discuss several questions about the validity of mock witness evaluations.

# ANGELA M. CROSSMAN & STEPHEN J. CECI, Cornell University False beliefs and cross-examination: Exploring their impact on preschoolers' testimony and credibility

The present research explored the impact of cross-examination on the accuracy and credibility of repeatedly, suggestively interviewed child witnesses. Preschool children observed an event about which they were repeatedly and suggestively interviewed. Three months later, the children underwent both direct and cross-examination about the event by practicing trial attorneys. Mock jurors viewed videotapes of these interviews and rated the children on a variety of dimensions. Results suggest that, although cross-examination is highly effective at discrediting both accurate and inaccurate preschoolaged witnesses, it does not alter children's false beliefs, nor does it assist fact-finders in the detection of reliable testimony.

# GRAHAM DAVIES & SONYA THASAN, Leicester University *Identification from video surveillance footage*

Among the claims for video surveillance is the ability readily to identify offenders. This deserves to be queried given the proven unreliability of identification evidence. CCTV footage may of course be replayed continuously but this in itself does not guarantee accuracy. Two studies are reported which examined the ability of adults to identify strangers seen on video from a 12 person array. Rates of misidentification in Study 1 reached 68% when identification was from a wholebody shot and 39% in Study 2 when made from a close-up. The forensic implications of these findings are discussed.

#### MITCHELL L. EISEN, Mt. Sinai Hospital and Medical Center, Chicago Assessing the relationship between dissociation and suggestibility in children and adults

One individual difference factor that has been raised as possibly being related to suggestibility is dissociation. Theoretically, dissociation affects memory through the creation of dissociative barriers separating the contents of various aspects of memory, or by simply creating disparities in the network

of associations that can enrich the recall of explicit memories. In this presentation I will discuss data from a series of studies conducted with adults and children examining the relationship between performance on various measures of dissociation and suggestibility. Preliminary data from this body of work indicate that performance on the Dissociative Experiences Scale (DES) is related to increased suggestibility and poor event memory in adult college students. However, event memory and suggestibility were not found to be related to performance on various measures of dissociation in maltreated children. These findings will be discussed within the context of current theories of dissociation through the examination of how this construct is defined and measured in children and adults. Possible developmental differences in the expression of dissociation across the life span will also be examined.

#### KRISTINE ERICSON, Surrey Place Centre

#### Knowledge of legal terminology and court proceedings in adults with developmental disabilities

Courts are very formal settings, where witnesses are called upon to answer questions requiring understanding of highly technical language in a complex and unfamiliar environment. Lack of understanding of legal terminology and court proceedings can affect courtroom performance and judgments of competency of a witness, and may create unnecessary anxiety for the victim/witness. Our research suggests that of 34 common legal terms, only 8 (court, judge, jail, lawyer, lie, police officer, truth, and witness) were well understood by 75% or more of the individuals in the high moderate to high mild range of developmental disabilities who participated in the study. We argue that an important component of preparation for the legal proceedings for developmentally disabled individuals is an assessment of the client's understanding of the legal process and court personnel, clarification of any misconceptions, and education with respect to legal terminology.

### STEPHEN M. FIORE & JONATHAN W. SCHOOLER, University of Pittsburgh Differential influence of task type on problem solving by groups and individuals

An ongoing debate in the literature on group versus individual problem solving is the presence or absence of process gains -- the improvement in group performance over and above the simple combination of individual members' skills. Such process gains are difficult to demonstrate and the majority of research demonstrates that group processes produce inhibitory effects on solution generation. In this paper aspects of the problem solving process, which could account for these differences, are explored. Results from a preliminary experiment are discussed in relation to group process factors that interact with particular problem solving elements to contribute to these patterns of performance.

# RONALD FISHER, MICHELLE MCCAULEY, & EILEEN MELLO, Florida International University; KAREN FALKNER & MARUIZIO TREVISAN, State University of New York, Buffalo Adapting the cognitive interview for long-term (35 years) recall of physical activity

The cognitive interview (CI) was modified for use in an epidemiological study where respondents were asked to recall their daily physical activities from the distant past (1960). In comparison to a traditional epidemiological interview, the CI elicited many more responses and also more precise responses. Several practical costs were incurred by the CI: training the interviewers, conducting the interviews, and coding the responses. These costs and benefits of using the CI are addressed along with conceptual and methodological challenges. We end with an existential question: Is the CI a technique, if it can be modified so radically for different settings?

# JOSEPH M. FITZGERALD, Wayne State University Source memory in the context of juror decision making

Sixty-four subjects participated in a study of juror memory and decision making. Subjects individually watched a 2-hour videotape reenactment of a civil trial. The design manipulated timing of judicial instructions, notetaking, and the format of a source memory task. The present paper will focus on the source memory task. Results indicated that subjects identified the correct source out 13 possible sources more than 50% of the time across evidence type and experimental condition. Subjects who were preinstructed were better able to reject false defense information (p < .001), but notetaking and recognition condition did not significantly impact performance.

MARYANNE GARRY, Victoria University of Wellington; CHARLES G. MANNING & ELIZABETH F. LOFTUS, University of Washington

A cognitive whodunit: Thinking about an event can make you think it happened to you

Garry et al. (1996) showed that imagining a hypothetical childhood event inflated confidence that it had actually occurred. However, it was unclear whether inflation was caused by subjects imagining the event or imagining themselves in the event. To disentangle the effects of protagonist and event, we asked subjects to write about events and varied [in Experiment 1] whether they or another person was the protagonist, and [in Experiment 2] whether they, a similar other person, or a different other person was the protagonist. The results of both experiments showed that writing about oneself and a different other increased confidence that a childhood event had actually occurred. Moreover, writing about a different other caused greater inflation than writing about a similar other. These results may help to explain circumstances in people thinking and writing about hypothetical experiences, or the experiences of another, promotes confidence that the experiences actually happened to them

SENA GARVEN, JAMES M. WOOD, JOHN S. SHAW, III, & ROY S. MALPASS, University of Texas at El Paso

More than suggestion: Consequences of the interviewing techniques from the McMartin preschool case

Four social influence techniques derived from McMartin Preschool Trial interviews were found to be substantially more effective than suggestive questioning at inducing 3 - 6 year olds to incorrectly report negative acts by a classroom visitor. The 36 children questioned using McMartin techniques made 58% accusations compared with 16% for 30 children questioned using the suggestive techniques frequently employed in the field's classic studies. Social influence and reinforcement appeared to be much more powerful determinants of children's answers than simple suggestive questioning. The SIRR model is proposed to explain how false statements may be elicited from children or adults.

JEFFREY A. GIBBONS, BRADLEY J. NEADERHISER, & W. RICHARD WALKER, Kansas State University

Forgetting and the independent interaction of conscious and unconscious processes

Participants saw two sets of nonsense syllables. The second set contained six items from the first set and followed it either immediately, after a 15 minute distracter or after 9 days. Nonsense syllables exposed twice were recalled best except after 9 days where forgetting occurred. Participants circled twice exposed items they thought (i.e., aware) were presented previously less as time increased. However, the number of twice exposed items left uncircled increased from immediate to the 15 minute distracter and remained stable for the 9 day delay. Apparently, conscious processes continue to decrease with time while unconscious processes rapidly peak.

BRENT GILLUND, DOUG PETERS, & DAVE CHRISTIAN, University of North Dakota; MARCIA MOBERG, Metricus Jury Consultants

Studying juror behavior using pretrial and posttrial questionnaires and videotape analysis of jury deliberations

A total of 40 juries were studied in 10 mock (criminal and civil) trials run by third year law students for their trial advocacy class. Federal or state judges presided over each trial. Considerable pretrial information (demographic, personality, & attitudinal) was collected for jury members via questionnaires. Following jury deliberation and voting, posttrial questionnaires evaluated the impact of trial factors (e.g., evidence, witnesses, & opening and closing statements) on trial outcome. The results revealed large individual differences in information processing and cognitive biases across jurors. Self-perceptions of leadership and measures of social desirability were predictive of power roles within juries, e.g., forepersons.

LIVIA L. GILSTRAP, ELIZABETH GRANT, & LAURIMAR REVERON, Cornell University; IRA E. HYMAN, JR., Western Washington University

Repeatedly manipulating remember versus know judgments in autobiographical memories

In this experiment, we examined adults' judgments about whether a recollection is a personal memory or self-knowledge. This dichotomization of autobiographical recall has come to be called the

remember versus know' distinction. In previous research, participants have been asked questions that emphasize the contextual characteristics of memories that they have described (Hyman, Gilstrap, Decker & Wilkinson; in press). These questions have been shown to have differential effects on source judgments concerning remembered memories (i.e., originating in the perceptual experience of the event) and known memories (i.e., originating from other sources such as photographs or parental narratives). The trend being that remembered memories are judged as less remembered and known memories are judged as more remembered after participants describe contextual details associated with the memory. The current study addressed whether these differential trends in participants' judgments of remembered and known memories would remain constant under conditions of repeated questioning. After the second interview, we asked participants questions about their remember versus know rating to address whether participants are interpreting the remember versus know scale as intended. This should engender a better understanding of participants' responses to questioning.

# KERRI A. GOODWIN & L. MARK CARRIER, Florida State University What it takes to overcome a weapon focus effect

The present study determined under what circumstances a weapon focus effect occurs with regard to memory for facial information and whether or not a weapon focus effect can be overcome. Participants were provided with differing instructions with regard to the event and information about the weapon focus. After viewing an event with or without a weapon involved, participants were asked to choose the culprit from a photo lineup. The results address the automaticity of the weapon focus effect and to what degree the effect involves consciously-controlled processes.

## JONATHAN M. GRADY & CHRISTOPHER D. B. BURT, University of Canterbury Comparison of within and across event sequencing ability

This study examined individuals' memory for the temporal position of both events and event components. Study one examined within event component sequencing by requiring subjects to arrange photographs they had taken into the correct temporal order and compared performance to across event sequencing measured by the arrangement of cards which displayed event labels. Results indicated no significant performance difference between the two tasks. Study 2 measured within event component and across event sequencing using computer presented digital images. Subjects performed both tasks with their own and other subjects' stimulus sets. Comparison of within and across event sequencing performance indicated a significant difference on self trials but not on other trials. The results are discussed in terms of possible differences in the retrieval of temporal information under within and across event conditions.

# MICHAEL GRUNEBERG, University of Wales - Swansea Applying memory research: We have the potential, we need the technology

This paper will argue that applied memory research has come a long way in 20 years, and in many respects progress in applicable research has had important real life implications. The paper will Cherry pick some of the most useful work in for example the field of eyewitnessing, memory improvement, aging and cognitive rehabilitation. However the main thrust of the paper will be to argue for the necessity of real life application, if real progress is to be made. Not only is real life application the logical endpoint of applied research, those who undertake real life application benefit from the different perspective that actual real life involvement brings. Real life involvement also opens up the need to solve new theoretical questions ,and when successful brings credit to the discipline from outside with the likelihood of increased funding for both basic and applied research. The paper will end with a plea for equal academic value to be accorded to advances in basic and applicable research and in cognitive technology, an area whose time has come.

#### S. HEATHERLEY & T. J. PERFECT, University of Bristol Implicit memory as a tool for measuring print advertising effectiveness

Implicit memory offers an exciting prospect to print advertisers. Previous research suggests that although adverts may not be remembered, there is an unconscious bias towards them. The present research manipulates color, brand name and slogans in an attempt to determine the factors that influence print advertising effectiveness. Participants were shown adverts incidentally and later asked to give preference ratings on either the entire advert or features of it. A final recognition test assessed

the influence of explicit memory on these preferences. The pattern of implicit and explicit memory effects are discussed in relation to print advertising practice.

HELENE HEMBROOKE, Cornell University; MARYANNE GARRY & JUSTINE MCPHEE, Victoria University of Wellington

#### Verifying autobiographical memories

Most false memory research has addressed the conditions under which they can occur. We focused on the next step: what kinds of strategies would people use to determine if a memory was genuine? Intentional movement research suggests that subjects tend to maximize goal-directed action while minimizing metabolic cost (e.g., Holt, Hamill & Andres, 1991; Shaw & Kinsella-Shaw, 1988). Would such a tradeoff be true for a hypothetical task? In two experiments, subjects considered childhood memories and described strategies to determine if the event had actually happened. We asked subjects about the quality of the information and personal cost in obtaining that information. We hypothesized that subjects would try to maximize the ratio of information quality to personal cost. Results showed that subjects were most likely to pursue strategies that maximized, and least likely to pursue those that minimized. This pattern was true regardless of whether subjects considered their own memory or a hypothetical one; it was also true whether subjects considered events for which there would be persisting corroborating evidence.

# HELENE A. HEMBROOKE & STEPHEN J. CECI, Cornell University *True and false memories of traumatic childhood events*

This study investigated whether participants could be induced to develop a false memory for a traumatic childhood event. Rather than suggest a specific childhood event, participants were exposed to global categories of trauma so that participants would be creating the entire memories from past experiences and personal histories. Participants were trained to use a variety of techniques to help them remember, including imaging, journalling, and auto-suggestion. After six weeks, five participants had developed a total of seven "memories". Five of these memories were not corroborated by participants' parents. This study addresses several social, cognitive, and motivational variables relevant to the creation of illusory memories.

# DOUGLAS J. HERRMANN & CAROL YODER, Indiana State University What is the place in SARMAC for applied research?

Basic research explains why things happen. On the basis of these explanations, applied research develops applications and technology to meet our needs. The success of applied research is critically important to the support given to basic research because the public tends not to finance basic research that does not lead to worthwhile applications. This paper examines the pros and cons of attracting applied researchers to join SARMAC. We propose that SARMAC should develop a plan regarding how much emphasis the Society should place on applied research.

D. HERRMANN, C. YODER, D. PLUDE, & T. LOPP, Indiana State University and University of Maryland

Memory in late life: Using the multi-dimensional model to integrate cognitive aging research

The multimodal model of memory is a broad-based theory which recognizes active (e.g., cognitive strategies, environmental demands) and passive (e.g., physical state, motivation) influences on encoding, storage, and retrieval processes. With organ reserve declines and cognitive changes, both active and passive modes may facilitate or limit memory performance, particularly in later life. In this poster, we will describe how memory research using older persons as participants provides support for the multimodal model. We believe that this comprehensive theory will provide new ways of understanding memory changes in late life.

CHRISTOPHER HERTZOG, Georgia Institute of Technology; DENISE C. PARK & ROGER A. MORRELL, University of Michigan; MIKE MARTIN, University of Mainz Relationships of metamemory, memory performance, and medication adherence in patients with rheumatoid arthritis

121 rheumatoid arthritis patients were assessed for cognitive functioning, metamemory, and everyday

prospective memory -- medication adherence. Self-reports of memory problems showed context-specific predictive validity; reported problems with medications correlated with adherence, but neither variable correlated with either cognitive tasks or reported frequency of forgetting. These results indicate a set of constraints on the validity of subjective memory complaints, and show that everyday prospective memory may be weakly related to laboratory memory task performance, possibly because of strategic behaviors for adherence that minimize reliance on memory processes for taking medications.

### BETH HOFFMAN, STEPHANIE KOLAKOWKSKY, STACIE METZ, & RICK PARENTE, Towson State University

#### The assessment of foreign language learning disabilities

People are affected by a plethora of learning disabilities; however most of which have been supported and accommodated. One of the more recent disabilities, foreign language acquisition, has become a primary issue with school administrations. The purpose of this study is to develop a valid test to assess an individuals ability to learn a foreign language. The participants consisted of 20 undergraduate psychology students who previously failed a foreign language course at least 2 times and 20 undergraduate psychology students who previously demonstrated the ability to learn a foreign language as controls. Using the nonsense word association task, each participant listened to 10 nonsense word associations, for example (lek-him). The entire word list was read aloud once. Then in random order each nonsense syllable (lek) was read aloud, requiring the participants to write down the corresponding word (him), continuing for eight trials. In order to illustrate a possible learning curve, only the correct responses were recorded for each trial. The results indicated a significant difference in performance between the two groups, showing those students who previously failed courses in foreign language performed significantly worse than the control group.

### T. S. HOLLINS & T. J. PERFECT, University of Bristol

#### Using training with feedback to improve the eyewitness confidence&shyp;accuracy relation

It has been hypothesized that the poor between&shyp;subject confidence&shyp;accuracy (C&shyp;A) relation in eyewitness memory is because of a witness's lack of knowledge about their areas of expertise regarding memory for events. This means they have no yardstick against which to measure their performance against others. In the present experiment a group of subjects given feedback on their performance over two training videos showed significant improvement in the between&shyp;subject C&shyp;A relation on the test video compared with a group who had practice but no feedback and a group that saw the test video only.

### IRA E. HYMAN, JR., CAROL L. WILKINSON, & CHERYL L. THOM, Western Washington University

#### Individual differences and false autobiographical memories

We investigated individual differences related to the creation of false childhood memories. In Experiment 1, college students repeatedly were asked about true childhood experiences and one false event. In a separate session, the students were administered cognitive/personality scales. Imagery ability and dissociative tendencies were related to memory creation. In a second experiment, we looked at individual differences related to source monitoring judgments in autobiographical memory. College students described a childhood experience they knew but didn't remember, formed a mental image of the event, and made a final know to remember rating of their memory. The students also completed several cognitive/personality scales. We looked at variables that related to the amount of change in the know to remember ratings. Individual differences that increase the quality of memory constructions and decrease source monitoring reliability contribute to the creation of false memories.

# IRA E. HYMAN, JR., KIMBERLY J. KROONTJE, KERI L. ANDERSON, AMY M. VAN BOVEN, & IRAIDA ATILES, Western Washington University

### The forgot-it-all-along effect: Investigations in remembering remembering

We investigated the ability to remember previously remembering events. In Experiment 1, students kept diaries for two weeks. On a first memory test, students completed a recognition test. On a second test, students were asked to identify events that had been on the previous test. Students claimed that true events had been on the previous test and that distracters had not. In two additional experiments, we

created word list analogs to investigate factors affecting the types of errors people make. Errors in remembering previous instances of remembering are caused by people making inferences based on the familiarity of an event.

TOMOYOSHI INOUE, Doshisha University; MASANOBU TAKAHASHI, University of the Sacred Heart

#### Memory and comprehension of paired pictograms and their verbal equivalents

The purpose of this study is to investigate the memory of a set of words or phrases which are thought to be verbal equivalents to certain visual symbols, pictograms. The subjects, who were presented pictograms in semantically related pairs, did not show any better performances both on immediate and delayed free recall than those who memorized the same forty items at random. But another experiment, which only asked subjects to name each pictogram on two conditions showed that the transparency was enhanced when each stimulus was presented with its semantically related item for both preschool children and undergraduates subjects.

# BARRY ISSACS, Surrey Place Centre/York University Witnesses with developmental disabilities: The Cognitive Interview and time delay

Research has shown that under free recall conditions people with developmental disabilities (DD) provide correct information about the central elements of witnessed events, but typically do not provide as many details as adults without DD. Asking more structured questions can assist individuals with DD to remember more information, but also increases the risk of presenting leading or misleading information. The cognitive interview is well suited to address these difficulties because it provides structure while avoiding suggestive material. Modifications and additions to the interview procedure, however, are necessary so that it better suits individuals with DD. This study investigates the event recall of individuals with DD using the Cognitive Interview under immediate and one week delay interview condition. Qualitative and quantitative results will be presented. Suggestions for modified and additional procedures for interviewing individuals with DD in legal contexts will be discussed.

#### YUJI ITOH, Keio University

### Memory for unattended radio advertisements

Memory for radio advertisements to which little attentional resources were allocated was investigated. The participants played a game while a 30 minute radio program was presented. During the program, two advertisements were presented three times and six were presented once. Recognition tests were conducted immediately after the program. Generally, memory for advertisement increased as a function of exposure frequency. The aspects of radio advertisements that are and are not acquired with little attentional resources are discussed.

## YUKIO ITSUKUSHIMA, YASUNARI OKABE, & HIROSHI YAMADA, Nihon University *The Self, others, and recollective experience*

To investigate the role of the self and other person in memory, self-reference paradigm and remembering vs. knowing distinctions were introduced. In our research, two other person references (like vs. dislike) and semantic encoding were also included. Recognition tests and remembering/knowing judgment tasks were given to the subjects after an hour, and then a week later. Results showed that self-reference resembles like-other reference in remembering judgments. However, reference to dislike-other leads to different processing in memory. These results suggest that depending on the person referred, memory processes are different.

## AKIKO KAMADA, Nihon University **Probability judgment in the "6-box" problem**

When the correct answers to probability problems are counter to human intuitive reasoning, what do people give as the principle of the problem over repetition of trials? The 6-box problem used in this study was a modification of the Monty Hall Dilemma (Granberg & Brown, 1995). 26 pairs of subjects (host-role and guest-role) repeated this problem for 50 trials. Most subjects changed their answers of the probability between before and after the trials. Subjects reported other factors such as the attitude of the host or the positioning of the cards and not probability as the reason for counter intuitive phenomena.

### STEPHANIE A. KOLAKOWSKY, BETH HOFFMAN, STACEY METZ, & RICK PARENTE, Towson State University

Predicting long-term retention of knowledge: Practical applications for people with head injuries and learning disabilities

There are a variety of methods used to predict long-term retention of knowledge. Research has shown rehearsal to have an effect on retention. This study was conducted to investigate which aspects of rehearsal best predict long-term retention in people with head injuries and learning disabilities. Subjects included 400 head injured and learning disabled clients. Results indicate the best predictors include number of rehearsal trials needed, amount of overlearning, level of terminal performance, and whether or not subjects employed a strategy when learning.

# RUTH KRASCUM & ALEXANDRA BRIGHT-PAUL, University of Wales - Swansea A pervasive influence of repeated and focused questioning on preschoolers' memory for an eyewitness event

3-year-olds were misled about an event either before it occurred, during the course of post-event questioning, or not at all. There were two categories of questions about the event, and children were asked half the questions from one category on four consecutive days. Misinformation targeted only the aspects of the event about which children were repeatedly questioned. On the final day children were asked the repeated questions, novel questions from the same category, and novel questions from the other category. All three groups did better at answering novel questions from the other category than novel questions from the practiced category.

#### JITINDER S. LAKHANA, Nihon University

#### The cognitive dynamics of cultural alienness &shyp; Is racial distinctiveness universal?

Cultural Alienness is the cognition of a dichotomy between national, ethnic and/or cultural groups, resulting in peculiar cognitive and behavioral patterns (Lakhana,1996). 7 Whites and 23 non-Whites in Canada gave CA-manifesting incidents involving them, their frequency and initiators' descriptions. High CA attributions by non-Whites to the white majority, the minority races being the object of all the Whites' CA and inconsistency in the NW's choice of races supported results from a Japanese CA study, that racial distinctiveness stimulates CA in the majority. Negative incident content and the fundamental attribution error suggested, however, that race might be equally potent for the minorities.

# JAMES M . LAMPINEN & DAVID G. PAYNE, Binghamton University; JEREMIAH M. FARIES, Bermuda College

#### Recollections of things schematic: The influence of schemas on recollective experience

Story memory can be influenced by the prior knowledge of the reader. Readers often show good memory for surprising or unusual story details and sometimes falsely remember schema consistent story details that were never explicitly presented. In the present experiment, we examined the qualitative characteristics of schema based memories. False memories were quite similar to true memories and atypical actions were especially likely to be experienced as conscious recollections.

# SEAN M. LANE, University of Nevada; KAREN CHAMBERS, Gettysburg College *The effect of warnings on false memories*

Two experiments explored the effect of warnings on false recognition or recall of critical non-presented words that are highly associated with words on a list. We provided subjects with information about the associative structure of the lists and the possibility that they may have thought of or recalled words that were not presented. When this information was provided after recall, but before recognition, the warning had no effect on recognition of critical items. When this information was provided after subjects had recalled half of the word lists, the warning decreased subsequent recall (and later recognition) of the critical items.

Real world frequencies of offender lineup identifications strongly influence the probability of the defendant's innocence. Estimator variables of 136 experimental real world conditions were compared in 115 real world cases. Real world conditions were overwhelmingly poorer. Identifications of the culprit were conservatively estimated at 25%, which, by Bayes theorem, approximates the probability of the defendant's innocence when identified. Given the propensity to believe the "identification", about 25% of lineup-based convictions are mistaken. We need stronger expert witness testimony and a modified lineup. A suggested modification is based on the sequential lineup and a proposal of Levi and Jungman (1995).

D. STEPHEN LINDSAY, University of Wales - Bangor; J. DON READ, University of Lethbridge; KUSUM SHARMA, University of Victoria

Accuracy, confidence, and individual differences in memory for the suspect

We hypothesized that both accuracy and confidence in suspect identifications depend, in part, on memory for the suspect: Accuracy and confidence are higher when memory for the suspect is good. Consistent with this hypothesis, when we analyzed across conditions that produced varying levels of accuracy, a substantial AC relationship emerged.

# R. C. L. LINDSAY & KAREN BELLINGER, Queen's University *Alternatives to the sequential lineup*

We tested identification techniques developed by police to increase correct rejections. Student-witnesses attempted identifications from five criminal-absent lineups: 1) sequential lineup; 2) sequential lineup handed to the witness; 3) simultaneous lineup; 4) simultaneous lineup instructing the witness to use absolute judgments; 5) simultaneous array with pictures at different angles. Witnesses indicated whether relative or absolute judgments best described their identification strategy. Sequential lineups (.97) produced significantly more correct rejections than handing sequential lineups to witnesses (.75), simultaneous lineups (.59), simultaneous lineups with enhanced instructions (.75), and pictures at different angles (.43). Subjects reporting absolute judgments made more correct rejections.

# VIORICA MARIAN & ULRIC NEISSER, Cornell University Word lists and autobiographical events: The false memory paradigm

Is memory for word lists indicative of memory for life events? The present study investigated this question by examining performance of the same participants in a word-list task and in interviews about childhood events. Part I replicated Roediger & McDermott's (1995) results of accurate and false memory for words in lists. Part II examined participants' recall of four true childhood events and one fabricated event. No correlation was found between memory for studied items in Part I and memory for true autobiographical events in Part II. Five (of 29) participants accepted some or all of the information about the fabricated event, but in 3 of these cases it later appeared that participants had experienced an event of a similar kind in the past. These findings caution against drawing conclusions from word-list memory to memory for life events.

# ELIZABETH J. MARSH & BARBARA TVERSKY, Stanford University The effects of affective and factual retellings on memory for a violent film scene

The way people talk about events affects the way they later remember them. After watching a violent scene, participants discussed it, focusing either on the facts or their emotions. "Facts" participants were more accurate in delayed recall of the scene but "emotions" participants were more accurate in recalled emotions.

# GIULIANA MAZZONI, University of Florence; ELIZABETH LOFTUS, University of Washington *Dream interpretation and beliefs about childhood events*

Recollections of traumatic childhood events can occur in therapy. These can indicate that an old repressed memory has been recovered or can be the result of suggestive practices. This study explores the possibility that a short therapy-like intervention modifies people's beliefs about childhood events. One group of undergraduates had their dreams interpreted by a trained clinical psychologist. Subjects had stated in a previous Life Events Inventory (LEI) that a critical event did not happen in their early childhood. No matter what the content of the subject's dream, during interpretation the dream was

related to the same critical event for all subjects. A control group did not receive a dream interpretation.

#### KATHLEEN B. MCDERMOTT, Washington University

#### Can priming on perceptual implicit memory tests be achieved through semantic activation?

Roediger and McDermott (1995) presented lists of semantic associates (e.g., thread, pin, sewing) to induce false recall of related, nonpresented words (e.g., needle). This study technique was used in an attempt to determine whether semantic activation of target words would be sufficient to produce perceptual priming. Although most current theories of implicit memory would predict otherwise, reliable priming of the nonpresented items occurred both on word stem and word fragment completion. Priming did not differ reliably (but was numerically less than) priming of presented items. Implications for theories of implicit memory will be discussed.

### CHRISTIAN A. MEISSNER, KERRI A. GOODWIN, & K. ANDERS ERICSSON, Florida State University

#### The structure of memory in false recall

Prior research has demonstrated that studying lists of words associated with a critical non-presented word results in high rates of false recall. The current investigation assessed word association and the structure of memory during the creation of false recall believed to occur during encoding. The complex structuring of list words and subsequent organization in memory is believed to be responsible for this effect. Results indicate that a restructuring of associated words among non-related words significantly affect the probability of false recall. Verbal protocols were used to confirm structured facilitation of memory, time of intrusion during encoding, and exhaustive search patterns.

# LAURA MELNYK & MAGGIE BRUCK, McGill University; STEPHEN J. CECI, Cornell University Win, lose, or draw: The effect of drawing on children's suggestibility and source monitoring ability

The current study examined the use of "drawing" as a "reminder" technique with preschoolers. After watching a magic show, children received true and false reminders about the show: half drew the reminders and half only heard them. When later asked what really happened, children in the drawing condition remembered more than the other children, but also provided more false reports. Yet, they had less difficulty differentiating true events from false reminders. These results highlight the potential positive and negative effects of using drawing as a mnemonic device and suggest that techniques eliciting high false report rates may not necessarily result in equally high numbers of source misattributions.

# STACIE M. METZ, BETH HOFFMAN, STEPHANIE A. KOLAKOWSKY, & RICK PARENTE, Towson State University

#### Mind operated devices: The state of the art

Mind operated devices (MODs) are designed to interface the electrical activity of the brain with a computer in order to control some external device. This technology senses intricate bioelectrical signals from the brain (EEG), muscle (EMG) or galvanic skin (GSR) activity, and then transforms these signals into electrical responses that can be used to activate equipment or to control some aspect of the environment. For instance, the signals can be used to control a video game, the lighting in a room, or a computer cursor. Unfortunately, there is limited published research in the area of MOD systems development. The purpose of this paper is to survey this literature, to present the results of original research in the use of MOD systems, and to propose a research agenda for the future.

# SUSAN J. NAYLOR & HOLLY A. TAYLOR, Tufts University Map learning criterion and task demands in investigations of environmental memory

Two experiments investigated 1) strategies related to map learning criterion, and 2) performance on memory tasks which require retrieval of information about landmark identity versus landmark location. Participants learned a map with either a spatial learning, or temporal learning criterion. Performance on a variety of memory tasks revealed differences as a function of learning criterion and task demands. Map drawing analyses revealed faster learning rates of landmark identity and location for landmarks that were large, uniquely shaped, aligned along the periphery, or were in corners of the map boundary.

# HELGA NOICE, Augustana College; TONY NOICE, Indiana State University; PASQUALINA PERRIG-CHIELLO & WALTER PERRIG, University of Bern

#### Improved memory performance in the elderly as a result of theatrical training

The purpose of this study was to determine whether the learning and performing of theatrical material could enhance cognitive functioning in the elderly. In a four-week intervention study, participants received scripts in which the goals of the characters were either stated (explicit-goal group) or implied (implicit-goal group). Results showed that all participants in the implicit-goal group had significantly slower access to the stored material. Also, males in that group recalled less of the script and were less able to correctly order randomized text statements. Furthermore, in addition to describing the experience as highly satisfying, all participants improved significantly on recall and recognition tasks, compared to pre-intervention testing.

#### ALGIS NORVILAS & GAIL L. BAILEY, Saint Xavier University Memory for family birth dates: Role of birth order, age, and gender

Family members' memory for each other's date of birth was investigated. Family members were asked to recall each other's birth date and provide information about themselves and the family. Parents consistently recalled their children's birth dates in relation to birth order: first child first, etc. As children became older, their memory accuracy for birth dates increased. Generally, women recalled birth dates better than men.

JOHN R. PADDOCK & ABIGAYIL L. JOSEPH, Emory University; ELIZABETH F. LOFTUS & CHARLES MANNING, University of Washington; SOPHIA T. GAYDEN & HERBERT W. EBER, Psychological Resources - Atlanta

#### Individual differences and imagination inflation

Recent research in cognitive science has demonstrated that when adults imagine childhood events, the act of vividly imagining these experiences can significantly increase their confidence that the imagined incidents actually occurred. The purpose of this paper is to report a study which sought to not only replicate what has been called the "Imagination Inflation" effect, but also to use well-established theoretical positions in personality research to identify individual difference variables that could predict susceptibility to suggestibility. Drawing from Rotter's (1965, 1982) Social Learning Theory and Benjamin's (1974, 1996) Structural Analysis of Social Behavior (SASB) model for interpersonal behavior, our experiment tested the extent to which locus of control for reinforcement, dissociability, and a hostile self-concept could predict the "Imagination Inflation" effect. Results indicated the following: "Imagination Inflation" was a reliable effect in our sample of 98 undergraduates; both external locus of control and dissociability significantly predicted suggestibility; SASB self-concept variables correlate significantly with suggestibility. These findings will be integrated with the results of subsequent experiments to discuss from a clinician's perspective the context specific nature of this effect, as well as how personality and cognitive psychology can interface and synergistically guide the search for individual difference predictors of susceptibility to suggestion.

## DAVID G. PAYNE, JAMES M. LAMPINEN, & MELINDA CORDERO, Binghamton University *The role of attention in producing false memories*

False memories are memories for events that never happened or memories for actual events that are grossly distorted. The present experiments examined the role of attentional and imaginal factors in producing false memories. We found that attentional resources are important in producing false recognition and true recognition while imagery only influenced the production of true memories.

### T. J. PERFECT & T. S. HOLLINS, University of Bristol Older adults as eyewitnesses: An individual differences approach

It is claimed that older adults show memory impairments similar to frontal lobe patients; in laboratory work both groups show deficits in recall (compared to recognition), source monitoring, contextual judgments, cognitive estimations and metacognition. Since these are important aspects of eyewitness performance, we investigate the performance of older eyewitnesses, predicting that these aspects of eyewitness performance will be most impaired and that those older adults with poorer performance on

psychometric 'frontal' tests will show the greatest impairments. These ideas are tested in two experiments, examining the performance of younger and older eyewitnesses.

### KATHY PEZDEK & KIMBERLY FINGER, The Claremont Graduate School The effect of verbal description on face identification accuracy: "Release from verbal overshadowing"

Two experiments test the relationship between verbal description and subsequent identification of a face. Experiment 1 tested and confirmed the hypothesis that face identification accuracy is reduced following the cognitive interview compared to the standard interview. Experiment 2 tested and confirmed the hypothesis that the verbal overshadowing effect is reduced when a delay is inserted between verbal description and face identification, hence resulting in "release from verbal overshadowing." These results suggest that in the verbal overshadowing task, the verbal description does not overwrite the visually based representation of the face in memory, but rather makes it less accessible at the time of face identification. This study also diminishes concerns that the cognitive interview might reduce subsequent face identification accuracy. This occurs only when identification follows description immediately -- a rare situation in real criminal cases.

### JOANNA D. POZZULO & R. C. L. LINDSAY, Queen's University *Procedural modifications: The lineup task for children*

Two new lineup procedures were examined with the goal of increasing children's identification accuracy. Participants (children aged 10 to 14 years-old and adults) were presented with either a target-present or target-absent lineup. Procedural modifications included an elimination strategy and a similarity strategy to be used with a simultaneous lineup presentation. These conditions were compared to a 'standard' simultaneous lineup procedure. Preliminary data suggest promise in the procedural modifications to increase identification accuracy. The applied implications of the results will be discussed. Future directions for children's identification research will also be addressed.

### MARY E. PRITCHARD & JANICE M. KEENAN, University of Denver *Metamemory of mock jurors*

The review of evidence in jury deliberation is predicated on the notion that jurors can accurately assess what they can and cannot remember and that they use this to guide their review of the evidence. We present two experiments that question the validity of this assumption. Mock jurors either watched a video of a trial or read the transcript and predicted how well they would remember it. They then took a short-answer memory test and made postdictions assessing the accuracy of their answers. The results showed mock jurors have poor memory monitoring skills for both predictive and postdictive judgments.

# SEAN PRYKE & R. C. L. LINDSAY, Queen's University Face distinctiveness as a factor in computerized mug shot sorting techniques

Mug shot searches interfere with memory for faces. Two computerized mug-shot retrieval systems were considered. One using similarity ratings reported better recovery of average looking than distinctive faces. The other using descriptions of faces worked best for distinctive faces. Subjects ratings of distinctive and nondistinctive faces were compared to the ratings of 600 other faces to indicate "degree of match". Distinctive faces were better retrieved when the description method was used but non distinctive faces were better retrieved using the similarity method. The way people remember distinctive faces is different from the way people remember non distinctive faces.

# PETER G. RENDELL, Australian Catholic University Aging and prospective memory: The role of background activities and cues

Laboratory prospective memory tasks often show the age related decline found with various retrospective memory tasks while naturalistic prospective memory tasks often show little age differences or superior performance by older adults. The participants, 60 older adults (70 years+) and 60 young adults (18 - 25 years) were given variations of a laboratory prospective memory task. The typical background activity of a retrospective memory task was replaced with picture response task not

testing memory and reminder strategies utilized in everyday life were encouraged or restricted. The results will be examined in the light of the environmental support hypothesis.

KIM P. ROBERTS, MICHAEL E. LAMB, & DAVID W. RANDALL, National Institute of Child Health and Human Development

Assessing the plausibility of allegations of sexual abuse from children's accounts

According to reality monitoring theory (Johnson & Raye, 1981), accounts of actual and fictitious events are qualitatively different. We developed a scale based on the Memory Characteristics Questionnaire (Johnson et al., 1988) to rate the accounts of children who had made an allegation of sexual abuse. Case information (e.g., medical evidence, witness statements) was used to judge the likelihood that the incidents occurred. The scale was assessed to see whether the scores differed for descriptions of incidents that were judged as likely versus those judged as unlikely to have occurred.

#### TINA B. ROSENBLUM, Cornell University

Collaborative learning in elementary and college populations: The role of differential tasks, group types and personality on group performance and individual transfer

Collaborative learning is investigated as a means of facilitating transfer. Three experiments were completed, evaluating a galaxy of personality, contextual, and social factors, with an elementary and college population. Results indicate that collaborative learning may, for some tasks, yield superior performance on the tasks completed collaboratively, but as a means to facilitate transfer the benefits are negligible and highly context-specific. In short, being a member of a collaborative group during the acquisition phase of a cognitive task does not always appear to benefit each individual's acquisition or learning.

### MARTIN A. SAFER & DAVID J. KEULER, Catholic University *Individual differences and memory distortion*

After terminating psychotherapy, 65 subjects were asked to complete a distress inventory exactly as they had in their pre- therapy assessment. Most subjects overestimated their pre-therapy distress. Subjects who were relatively distressed, depressed, anxious, or neurotic at recall were particularly likely to overestimate, whereas those who scored relatively high on ego-strength or deception either overestimated less or underestimated the intensity of their pre-therapy distress. Individual differences were also correlated with specific types of memory distortion, such as adding, exaggerating, omitting, and minimizing previously reported symptoms. We propose that systematic memory distortions may both reflect and create individual differences.

JONATHAN W. SCHOOLER, STEPHEN M. FIORE, & DOUGLAS WHITESIDE, University of Pittsburgh; DOUGLAS HERRMANN, Indiana State University

Perceived contribution of cues and mental states to prospective and retrospective memory failures

This research investigates experts' and non-experts' accounts of the proximate causes of selected memory failures. Self-report accounts of memory failures were categorized into prospective and retrospective failures with the causes attributed to either environmental cue changes (e.g., change in context) or mental states (e.g., fatigue, elation). Results reveal differential influences of cues and mental states on prospective and retrospective memory failures.

# MATHEW SCULLIN & HELENE HEMBROOKE, Cornell University Development and validation of a suggestibility scale for children

Our paper deals with the development of a suggestibility scale for preschool children that examines individual differences in the way children succumb to suggestive questioning and is easy to administer and score. The scale was found to correlate moderately with children's performance in a different suggestibility experiment, which supports the construct validity of the scale. Individual differences in temperament and intelligence were also examined in relation to performance on the scale and in the suggestibility experiment. It was found that both of these factors may be worth further examination.

JEAN SEARCY, JAMES C. BARTLETT, & AMINA MEMON, University of Texas at Dallas Individual difference variables as predictors of eyewitness identification & memory performance in

#### older persons

We explored how individual difference variables predict the accuracy of older persons in eyewitness identification and memory. On lineup tasks with target present and target absent conditions, seniors were more likely than the young to make false identifications but were not less confident in their choices. Seniors who scored below the normal range on the Benton Facial Recognition Test (BFRT) were less accurate on lineups than other seniors, but had similar choosing and confidence rates. We also examined he relationship of the Wisconsin Card Sorting Test and other tests of frontal lobe functioning, as well as measures of suggestibility, compliance, metamemory, and attitudes, to performance on eyewitness memory tasks.

### ANDREW SERGEANT & MICHAEL GRUNEBERG, University of Wales - Swansea The effectiveness of the first letter retrieval strategy in episodic memory

There has been little previous research on the First Letter Retrieval Strategy (FLRS) as an aid to the recall of both episodic and semantic memory. This paper reports on a study which evaluates the effectiveness of the FLRS in conjunction with an alternative set of three strategies (AS). Eighty subjects were shown a 15 minute video of a police arrest, they were then tested on the recall of both visual and verbal items using a 26 item questionnaire. The subjects were tested in one of four conditions, where they were given instructions on either; (1) the FLRS and the AS, (2) the AS only, (3) the FLRS only, or (4) no instructions on the use of a memory strategy. The results demonstrate the effectiveness of both strategies, however, there are apparent sex differences. The AS condition, which included visualization, proved to be a more effective technique for eliciting previously unretrieved material, for male subjects than the FLRS. Conversely, the FLRS proved more effective than the alternative strategies of the AS condition, for female subjects. These findings are discussed in relation to past research.

### LAUREN R. SHAPIRO, CHERYL BLACKFORD, ELIZABETH BROOKS, & CHIUNG-FEN CHEN, Emporia State University

Remembering Jesse's birthday party: Effects of single and repeated interviews on recall of atypical features

This study examined white, lower- and middle-class first-grade children's ability to recall an atypical birthday party. The repeated interview group was questioned about 10 atypical features 1 week and 7 weeks after the party, whereas the single interview group was questioned 7 weeks after the party. Results indicated that children more accurately reported absent features and act violations than disrupted acts. The repeated interview group reported more atypical features using open-ended questions and provided more details than the single interview group. The single interview group was more reliant on leading questions to elicit memory and was prone to erroneous recall.

## JOANNE N. STROUD & DANIEL B. WRIGHT, University of Bristol Identifying your own age: An own-age bias in lineup identifications

The reliability of lineup identifications is critical for the criminal justice system. We explore how the relative ages of the witness and the culprit influence eyewitness accuracy. Young (18 - 25 years old) and older (35 - 55 years old) adults each saw four crime videos. In two of the videos the culprit was a young adult and in the other two the culprit was an older adult. Subjects were more accurate when viewing lineups composed of people their own age. Implications for both police procedures and theories of face recognition are discussed.

### CHARLES P. THOMPSON, Kansas State University Life is pleasant -- and memory makes it better

In involuntary memory studies, diary studies, and retrospective studies of autobiographical memory, reported pleasant events outnumber reported unpleasant events about two to one. The emotion attached to events fades over time, but negative emotion fades faster than positive emotion.

DONALD M. THOMSON & ADELE M. HILLS, Edith Cowan University

Legal decision making: The context dependent role of consequences and foreseeability

Two experiments examined the role of consequences for the victim and their foreseeability by the perpetrator in sentencing decisions for sexual assault, and robbery. Experiment 1 used short descriptions of identical offenses with different consequences, mild or severe, either foreseen or unforeseen. Experiment 2 used more elaborate descriptions in the context of criminal proceedings. Results indicated no impact of consequences and a weak foreseeability effect in the first experiment. In the second, harsher sentences were given for severe consequences, but only for the sexual assault. There was no significant foreseeability effect. The research highlights the context dependence of legal decision making.

## MICHAEL P. TOGLIA, SUNY at Cortland, JEFFREY S. NEUSCHATZ, Binghamton University *Are all memories created equal?*

It has been convincingly demonstrated that subjects frequently falsely recall and recognize items that are associatively related to information presented at study. Recently, memory researchers have begun to examine the subjective experience of remembering these false events. We report a series of studies that seem to support the conclusion that subjects' phenomenological experience of illusory recollections is similar to that of real memories as indexed by confidence ratings, remember/know judgments and warnings. However, when more complex story materials are employed this conclusion does not seem to hold. The results are discussed in terms of their theoretical and forensic implications.

#### IAN TURNER, York University

### A comparison of the METFORS Fitness Questionnaire (MFQ) and the Competency Assessment Screening Test for Defendants with Mental Retardation (CAST-MR)

Assessments of Fitness to Stand Trial of Developmentally Delayed (DD) individuals present problems because of their difficulties in attention, comprehension, and expression of what they do understand. Only one instrument, the 50 item Competency Assessment Screening Test for Defendants with Mental Retardation (CAST-MR) has been designed specifically to evaluate DD individuals' Fitness to Stand Trial and undergone a reasonable validation procedure. The METFORS Fitness Questionnaire (MFQ) is a brief (19 item) multiple-choice self-report questionnaire that has been constructed using the Permutation Model and validated for use with psychiatric patients. This study provided preliminary normative data on the MFQ with a DD sample, as well as on convergent validity of the MFQ, referenced against the CAST-MR. DD and Non-DD control groups were compared along several dimensions including competency status, non-verbal, and verbal cognitive efficiencies. As expected, the groups differed significantly on all variables, MFQ scores correlated very highly (r = 0.86) with CAST-MR scores, and there was good agreement (87.5%) on Fitness Decisions with the two instruments. These results suggest that the MFQ may be a valid instrument for assessment of competency to stand trial with developmental disabled defendants.

# W. RICHARD WALKER, JEFFERY A. GIBBONS, RODNEY J. VOGL, & CHARLES P. THOMPSON, Kansas State University

#### Depression and the rehearsal of pleasant and unpleasant autobiographical memories

Depressed and non-depressed participants were asked to recall emotional autobiographical memories and make several retrospective judgments concerning these memories. Participants judged event pleasantness at both the time of the event and at the time of recollection. For non-depressed participants, the emotional intensity for unpleasant events faded significantly more than the emotional intensity for pleasant events. Depressed participants showed contrary results: relative to non-depressed participants, the emotional intensity faded more for pleasant events and less for unpleasant events. Depressed participants reported rehearsing their memories to re-experience emotion while non-depressed participants rehearsed their memories to share them with others.

# K. D. WATKINS, Charter Hospital; GEORGE S. DENNY, University of Arkansas Memory ability as a function of IQ and mathematics achievement in children diagnosed with specific learning disabilities

The influence of memory ability on mathematics achievement was studied in 68 children diagnosed with a specific learning disability (SLD), 39 children with a (SLD) who exhibited normal achievement in mathematics, and 29 children with a (SLD) in mathematics. The study investigated (a) the degree to which short-and long-term memory ability influences mathematics achievement, and (b) does short-

term or long-term memory play a more important role in mathematics achievement for children with a mathematics disability as compared with children who exhibited normal achievement in mathematics. Mathematics achievement and memory ability scores, normed according to the Woodcock-Johnson Psycho-Educational Battery, were used in a multiple regression and multivariate analyses.

#### DUANA C. WELCH & ROBIN L. WEST, University of Florida Everyday memory, gender, and aging: Spontaneous strategies for remembering object locations

Remembering object locations is an important everyday ability. This research examined age and gender differences on a computer simulation of this task -- Misplaced Objects Test (MOT). The MOT required delayed recall of the locations of 20 common objects "placed" by participants (using a touch-screen) into 12 rooms. After testing, older (N=152) and younger adults (N=95) described their strategies and completed a checklist depicting 10 strategies (rehearsal, imagery, organization, etc.). The young had higher MOT and strategy scores than the old, women scored higher than men, and adults using two or more strategies outperformed those reporting fewer strategies. The discussion will focus on gender, strategy intervention, and the value of assessing strategies.

### GARY L. WELLS, Iowa State University False identifications in real cases

The use of forensic DNA evidence in criminal cases is less than 10 years old in the United States. As a result, those who were falsely convicted of criminal offenses over 10 years ago for which there was DNA trace evidence had no opportunity to demonstrate their innocence via DNA analyses. This has created a special circumstance in which a definitive post hoc exoneration of innocent persons can be studied. An initial sample of 28 cases of wrongful conviction shows that 24 of these were convicted primarily on eyewitness identification evidence. New cases are being added to the list showing the same profile, namely that false identifications were at the heart of the evidence against these innocent people. The modal profile of these cases is that they are sexual assault cases with victim identification from photo spreads. In some cases there are multiple identifications of the innocent person. Indications are that the detective or agent who administered the photo spread or lineup always knew which person was the suspect, usually had prior dealings with the suspect, had a strong belief that the suspect was the guilty person, and worked closely with the victim witness to secure the identification. None of the identifications were obtained with sequential procedures. Most had one or more obvious biases in the structure of the photo spread or lineup and the eyewitnesses were almost uniformly very certain of their identification, even to the point where some still report to this day that the face they have in memory is that of the wrongly convicted person. Indications are that most or all of the eyewitnesses were given feedback at the time of their identification that they had identified the "right" person.

# GARY L. WELLS & AMY L. BRADFIELD, Iowa State University *Post-lineup feedback to eyewitnesses distorts more than just their confidence*

People (n=172) identified someone from a photospread that did not contain the actual gunman. Following their false identification, eyewitnesses were told that they identified the suspect (confirming condition), a nonsuspect (disconfirming condition), or were told nothing about their identification (control). Compared to the control, eyewitnesses receiving confirming feedback after their identification reported having made the identification more quickly, having better witnessing conditions, having paid more attention to the gunman, and having greater certainty (among other things). Confirming feedback also increased the details used to describe the gunman. These effects were robust and illustrate the pernicious influence of post-identification feedback.

### EUGENE WINOGRAD, JENNIFER PELUSO, & TODD A. GLOVER, Emory University Individual differences and memory illusions created in the laboratory

Experiment 1 followed the procedure of Roediger & McDermott (1995) and correlated errors in recall and recognition memory with eleven measures of personality and cognition. Errors were correlated with scores on the Dissociative Experiences Scale (DES), especially so when subjects claimed recollective experience to lures. No measures of verbal ability correlated with performance. Experiment 2 tested the hypothesis that people high on the DES have difficulty with source monitoring, in particular, in distinguishing internal from external events.

## DANIEL B. WRIGHT & JOANNE N. STROUD, University of Bristol *Erasing memories: Can postevent information eliminate the past?*

Hundreds of experiments demonstrate that erroneous post-event information can affect memory. More recent research has shown that entire suggested events can be implanted in memory. These studies involve adding new information or manipulating existing information. We explore whether the post-event information procedure can be used to erase existing information. By this, we do not mean whether people can be led to believe that detail A was detail B; rather, we mean whether people who have seen Detail A can be led to believe that they did not see Detail A. Memory erasing has implications for eyewitness research where witnesses may hear other accounts that do not include some aspects of their own memory. It is also relevant to current theories about inducing memory suppression.

# DAN YARMEY, University of Guelph Retrospective duration estimations in field settings

This study investigated retrospective duration estimations made immediately after participation in naturalistic activities. In contrast to expectations, there were no differences in accuracy of estimations for regular-recurrent activities and irregular-recurrent activities. Time estimates for events lasting 16 minutes or longer were relatively accurate, whereas events lasting 3 minutes or less were substantially overestimated. Women gave greater overestimations than men, however, there were no sex differences when estimates were preceded by imagery-rehearsal of the event. Participants were more confident in the accuracy of estimations with longer time intervals.