Memories prepare us for the future

BY GERRY EVERDEEN

Human memory, the ability to recall vivid mental images of past experiences, has been studied extensively for more than 100 years. But until recently, there’s been surprisingly little research into cognitive processes underlying another form of mental travel — the ability to clearly imagine oneself participating in a future event.

Now, University researchers have used advanced brain imaging techniques to show that remembering the past and envisioning the future may go hand in hand, with each process sparking strikingly similar patterns of activity within precisely the same broad network of brain regions.

“In our daily lives, we probably spend more time envisioning what we’re going to do tomorrow or later on in the day than we do remembering, but not much is known about how we go about forming these mental images of the future,” said Karl Szpunar, lead author of the study and a psychology doctoral student in Arts & Sciences. “Our findings provide compelling support for the idea that memory and future thought are highly interconnected and help explain why future thought may be impossible without memory.”

Published Jan. 9 in the Proceedings of the National Academy of Sciences, the study shook new light on how the human mind relies on the vivid recollection of past experiences to prepare itself for future challenges, suggesting that envisioning the future may be a critical prerequisite for many higher-level planning processes.

Study co-authors are Kathleen McDermott, Ph.D., associate professor in Arts & Sciences. “Our findings shed new light on how the future is constructed in the mind,” McDermott said. “We hope this study will encourage researchers to consider how our memory systems are used to envision the future.”

Drivers with dementia is topic of health providers workshop

BY MICHAEL C. PURDY

Researchers at the Alzheimer’s Disease Research Center (ADRC) at the School of Medicine and elsewhere have developed a three-hour workshop that trains health-care providers to identify potentially unsafe drivers with dementia and to encourage appropriate retirement from driving.

“We don’t want to give the message that older drivers are always unsafe, because that’s just not the case,” said Thomas M. Meuser, Ph.D., research associate professor of neurology. “But there are health-related changes associated with aging, including Alzheimer’s disease and other forms of dementia, that impair medical fitness to drive.”

In a recent issue of Gerontologist, Meuser and his colleagues reported on the effects of their workshop after presentations to health professionals in seven Missouri locations, including a number of rural cities with large elderly populations. The presentations were organized with assistance from local chapters of the Alzheimer’s Association and other groups.

“We found a significant change in the willingness of participants to ask their patients questions about driving and to document findings and concerns in the medical record,” Meuser said. “There was a real sense among participants that yes, there is something that I can do.”

Debate is ongoing about when in the progression of dementia a patient becomes ineligible to drive. Most states, including Missouri, do not have specific prohibitions in this regard, but all states allow health professionals and others to report persons perceived as medically unfit to drive due to dementia or other conditions. In 2001, the American Academy of Neurology recommended that persons diagnosed with mild dementia stop driving for reasons of personal and public safety.

WUSTL physicians use the Clinical Dementia Rating (CDR) interview to determine the level of dementia-related impairment. The ratings are based on a scale of 0 to 3, with 0 being normal and 3 repre-
A.G. Edwards gift expands entrepreneurial programs

By Barbara Rea

A G. Edwards Inc, the St. Louis-based national investment firm, will expand the A.G. Edwards Visiting Professorship in Entrepreneurship at Washington University, it was jointly announced by Chancellor Mark S. Wrighton, chancellor and chief executive officer of WUSTL, and Gary Kornell, executive vice president, chief of staff for its president and general manager of its real estate division.

"We are delighted that this distinguished, nationally renowned firm has committed so generously to the advancement of entrepreneurship at Washington University," Wrighton said. "The professorship will provide a significant boost to our University-wide entrepreneurship initiatives."

"This commitment to Washington University is another step in our overall commitment to enhance financial and economic opportunities in our community," Bagby said. "The visiting professorship is a key component in the University's efforts to expand the entrepreneurial culture across its campus and educate future generations on the importance of entrepreneurship."

"Our partnership will reward Washington University by increasing the number of students interested in entrepreneurship; it will also reward St. Louis by increasing the number of entrepreneurs who will serve as a local economic development engine," Bagby continued.

The gift is the latest in a string of announcements that have recently demonstrated the University's growing entrepreneurial presence.

The visiting professorship will be established to bring renowned entrepreneurs and university faculty to the University to enhance the teaching of entrepreneurship. Each professor will have a flexible 2-year term. The A.G. Edwards visiting professorship will provide the University with an opportunity to have a senior executive from a major corporation lecture on entrepreneurship, and also to establish startups that will provide the University with a flexible mechanism for launching new companies.

The visiting professorship will be open to executives from any company, but the University will prioritize companies that have a history of successfully launching and growing entrepreneurial ventures. The University will work closely with the A.G. Edwards Foundation to identify potential visiting professors.

The University's entrepreneurial initiatives include the Center for Innovation and Entrepreneurship, which is the University's hub for entrepreneurship education and research. The center provides law students with the opportunity to learn about entrepreneurship through hands-on experience, including a course on intellectual property law. The center also hosts an annual entrepreneurship competition, which provides cash prizes and mentorship to the winning teams.

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Marrah, a skilled patent lawyer, and Castanho, a scientist with extensive experience in commercial development of biotechnology products, have been interim directors of the OTM since Feb. 2006. Their complementary backgrounds and dual leadership role are expected to boost the University's ability to make discoveries from the laboratory to industry.

"The complex nature of the Office of Technology Management, with its involvement in business, scientific, and legal expertise, lends itself well to the board that together bring expertise in all three areas," said Samuel L. Stanley Jr., M.D., Schnuck Family Professor of Cancer Research.

"We need to bring expertise in all three areas," Gutmann explained. "It should be recognized that the genetic alterations in a tumor may be very subtle," Gutmann said. "When we looked at these genetic fingerprints, we found the potential origins of brain tumors in a very small subset of these genetic alterations." The researchers found that tumors arising in different regions of the brain retain distinct patterns of gene expression. These patterns provided genetic fingerprints or bar codes for the location of PAs, as well as for another glial cell tumor called an ependymoma. In addition, scientists identified distinct patterns of expression in normal glia and stem cells from these brain locations, suggesting that genetic fingerprints can be used to identify the potential origins of brain tumors.

"There's been a movement in recent years to link normal brain development to pediatric neuro-oncology, and I think this is a particularly important focus of Gutmann's research, neuro-oncology and the field of alcoholism research," said Kathleen K. Bucholz, Ph.D., professor of psychology, psychiatry and the field of alcoholism research.

The researchers identified the genetic fingerprints of the brain cell from which a brain tumor originated. This information can be used to predict which tumors will be relatively well-behaved and which will be more aggressive, Gutmann said.

Previous studies have failed to produce any solid leads on the genetic alterations that predispose children to PAs.

Alcohol Use Across the Life Span

Academics from around the United States will present their research at the 7th Annual Samuel B. Gue Symposium on Alcoholism at the University of Missouri-Columbia on Feb. 8-9, 2007.

The program is intended for researchers, psychologists, physicians, workers, teachers, policymakers, other health professionals and members of the community. Participants may receive continuing education credits or a certificate of attendance.

The symposium includes alcohol's effects on neural development and alcohol use among children and adolescents in young adulthood, mid-life and among the general population as a necessary research area. The program will also be open for participation by researchers and other interested persons.

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School of Law launches new research center

By JESSICA MARTIN

The School of Law recently launched the Center for an Empirical Legal Scholarship. Under the direction of Andrew M. Martin, Ph.D., professor of law and of political science in Arts & Sciences, the center seeks to advance empirical legal scholarship at the law school, as well as throughout the University.

"While doctrinal and theoretical work plays an important role in legal and social scientific research, so too, does the collection and analysis of "data about how things work," Martin said.

The center provides research support and infrastructure to affiliated faculty and students, works to foster interdisciplinary collaboration through the use of law school research databases that serve as the building blocks for the center’s work. The center also will provide support and training for empirical legal research to students and colleagues, offering courses and seminars in the law school, as well as training institutes for law school and social science faculty.

"Today, it is essential for lawyers and scholars to better understand the legal system, and the Supreme Court Forecasting Project, a friendly interdisciplinary competition that compares the accuracy of different models in predicting the outcomes of Supreme Court cases, is a example of the kind of work we would like to see done here," Martin said.

Exhibits

Annual Graduate Student Art Exhibit

Through Feb. 27, Bethany Workman, School of Visual Arts, 130 Washington Ave. 802-9288.


Film

Friday, Feb. 9


Friday, Feb. 16


Lectures

Thursday, Feb. 8


7:30 p.m. Hormone & Reproductive Disorders. "Case Discussions in Breast Cancer." The Center: St. Louis. 935-6361.

Saturday, Feb. 10


Monday, Feb. 12


5 p.m. K12 Multidisciplinary Clinical Research Career Development Program. "This is the 1st formal meeting of the workshop participants." Carol Neureuther, assoc. prof, of medicine. Donnell Medical Sciences Bldg., Rm. 823. 802-6304.


Wednesday, Feb. 14


Thursday, Feb. 15


4 p.m. Chemistry Seminar. "Electronic Interactions in Organic Polymers for Application in Conductive Polymers." John Brainard, prof, of chemistry. McMillen Medical Sciences Building. Rm. 823. 802-6304.


School of Medicine

Monday, Feb. 19


Wednesday, Feb. 21

1 a.m. Assembly Series. Artist Curator. "Knowing the Lifecycle." Simon Powell, prof, of medicine. Children’s Teaching Conference. Rm. 1. 802-4523.

On stage

Thursday, Feb. 8

8 p.m. "Flirting with Danger." Lisa Cullen, instr, of arts. Maxwell Hall, Rm. 415. 802-4523.

Friday, Feb. 16


Sports

Friday, Feb. 9


Sunday, Feb. 11

Novelist and political negotiator Farah on the battle against intolerance and censorship

By BARBARA REA

For Nuruddin Farah, the personal is the political. His novels, short stories, essays and plays deal with the themes of a lost country, a lost cultural identity and the burden of keeping a country alive in minds and hearts.

After decades writing about the political struggles, civil war and the diaspora, Farah is using his passion, wisdom and talent for language to help negotiate a peaceful arrangement among fighting factions in his native Somalia. As part of a U.S. speaking tour, Farah will be on campus Feb. 13-14 to present "Thick as Thieves: Pluralism and Clan in Present-day Somalia" for the School of Arts and Sciences and to present a reading/discussion of his works for a group of University administrators, including Chancellor Christopher F. P. Wischon, who recently visited three Turkish universities to gauge interest in partnering with the McDonnell International Scholars Academy. Middle East Technical University in Ankara and Bogazici University in Istanbul formally signed on as the 20th and 21st McDonnell Academy partners. Karamustafa, who is from Turkey, will serve as ambassador to the Turkish schools.

Talks will be held at 11 a.m. Feb. 14 in Graham Chapel.

The 8th U.S. Circuit Court of Appeals will host a special session Feb. 13 in the School of Law's Bryan Cave Moot Courtroom in Anheuser-Busch Hall. The public is invited to hear the three appeals cases called to a deportation order, a drug conviction and tax evasion.

The court periodically holds sessions in law schools as part of an educational program. Hear arguments will be judges William Jeff, Michael R. Hargrove and Andrew C.加入 teach.

The program will feature Frank Joseph Haynes' String Quartet in G Major, op. 77, no. 1, and Johannes Brahms' String Quartet in G minor, op. 51, no. 1. During the event, performers will offer commentary about the music and answer questions.

The free concert is supported in part by the Missouri Arts Council.

For more information, call 935-4620 or visit assembly.wusd.edu.

New site for student businesses

By NEIL SCHENKEL

SEP was created in fall 1999, and now more than 300 instructors use the system. Instructors can customize content to their courses, meeting times, syllabi, assignments and library resources.

The system also offers communication tools, such as threaded online discussion, announcements, e-mail and real-time chat.
CUP
Quality of finalists increases investment
from Page 1

Call the moment of unification, while Jankowski's video "Haus (2000) investigates nostalgias for the German Democratic Repub-
lic, and Ataman's installation "It's a Vicious Circle" (2002) explores the fragile nature of national-ideal.

As a result, this in a number of ways by employing pop-culture and bringing in the viewer into the creation of aesthetic experience, by visualizing spaces that compete with social environments and by mim-icking the rhetoric of globalization, while Majerus and Pflaum survey the impact of mass culture.

Aging.

Art exhibit
Post-wall Germany influences artists
from Page 1

Driving
Preparation could save car accidents
from Page 1

COPPER

Olin Cup

Quality of finalists increases investment
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Aging.
Smoking-cessation program offered to eligible faculty, staff

BY ANDY CLENDENEN

It’s been a little more than a month and you are trying to kick the habit. That New Year’s resolu-
tion to quit smoking has been a struggle. Here. The University’s Wellness Connection is offering a free smoking-cessation pro-
gram designed to help you quit. This month, the American Lung Association (ALA) is sponsoring an informal information session to explain its Freedom From Smoking program. This pro-
go offers a step-by-step plan for quitting and will help you gain control and make a less stressful experience. The session, facilitated by a representative from the ALA, is from noon-1:30 p.m. Feb. 19 in Brookings Hall, Room 300.

Attending the information session does not obligate you to join the program, but it is an opportunity to learn how you can quit and stay smoke-free. Registration for the five-week program will be available at the session information. Forms also are available online at wellnessconnection@wustl.edu. In addition, registration forms may be requested by e-mailing WellnessConnection@wustl.edu. In addition, registration forms may be requested by e-mailing WellnessConnection@wustl.edu. In addition, registration forms may be requested by e-mailing WellnessConnection@wustl.edu. In addition, registration forms may be requested by e-mailing WellnessConnection@wustl.edu.

For more information on these sessions, visit the ALA’s website at www.alaprograms.org.

Men’s tennis defeats Division I Dayton, 5-4

The Bears defeated the Flyers 5-4 in the 2007 season with a 5-4 win against Division I University of Dayton Feb. 3 at the Creve Coeur Racquet Club. The Bears, ranked No. 8 in the ITA Division III Fall Rankings, jumped out to a 2-1 lead after doubles play. Junior Charlie Howard captured the victory for the Bears with a 6-2, 6-7 (2-7), 7-5 come-from-behind win against Matt Sherman at No. 3 singles. Howard, who trailed 5-2 in the third set, fought back three match points to even the final set at 5-5. He broke Sherman’s serve to take the 6-2 lead, then clinched the match by holding serve in the 13th game.

Men’s, women’s track and field shine at IWU

The men’s and women’s track and field teams turned in an impressive performance at the Titan Open Feb. 3 in Bloomington, Ill. The men placed a pair of NCAA Championships provisional-qualifying standards on the day — a time of 4:41.22 in the mile and a time of 2:15.42 in the 1600-meter run. Junior Morgan Leonid-Fleckman also cleared an NCAA provi-
sional mark, recording a pole vault of 3.41 meters (11-2). Senior Cameron Williams im-
proved his season-best mark in the high jump to jump 6 feet. Williams won the event with a leap of 1.95 meters (6-4.1). Additionally, the 4x400-meter relay squad of junior Marcus Woods, junior David Beattie, sophomore Nate Kool and freshman By Unuma notched a season-best time of 3:32.41. The men placed eighth in their 16-team field.

Men’s basketball 101-96

The men’s basketball team (16-3, 7-2 UAA) dropped two league games last weekend on the road. The Bears fell at No. 15 New York University, Feb. 2 in Manhattan. The loss snapped WUSTL’s 13-game win-
ing streak. Sophomore Tyler Koslof and freshman Iby Umana notched a game-high 22 points with five 3-pointers, while TylerYuths finished with 12 points.

On Feb. 4, WUSTL dropped an 81-75 triple overtime game at Brandeis University in Walpole, Mass.

Women’s basketball wins one of two

The women’s basketball team (15-5, 7-2 UAA) earned a split last weekend in a season-to-season UAA sweep. The Bears fell at No. 11 New York, 83-56, Feb. 2. Sophomore Haley Ward scored a career-high 12 points while classmate Jamie McFarlin added nine points and 10 rebounds.

On Feb. 4, the Red and Green bounced back Feb. 4 with a 51-45 win at No. 19 Brandeis. Ward came up big in the clutch for the Bears, connecting on three 2-pointers and converting a foul to help WUSTL erase a five-point deficit in the final four minutes of play.

On the Web

For complete sports schedules and results, go to bearsports.wustl.edu.
A proactive approach to bone care

Diemer helps prevent musculo-skeletal injuries, osteoporosis

By DIANE DUKES WILLIAMS

Washington University in St. Louis

Feb. 8, 2007

Kathryn M. Diemer discusses patient Christine Filcoff's treatment after a bone density test. "She is a defining member of our musculoskeletal team and among the best bone clinicians in the country," Steven L. Teitelbaum, M.D., says of Diemer. "She's the person you want to take care of your mother or your wife with osteoporosis."