CSU Research Team Investigates Engaging Environments

According to the World Health Organization, around 47 million people worldwide have dementia. Colorado State University researchers are now trying to find ways that cognitive and functional ability can be improved in people with dementia and other aging adults through the use of engaging environments.

This research team grew out of the initial data from a study known as the B-Sharp program. In the B-Sharp program, people with dementia and their caregivers were given passes to five concerts put on by the Fort Collins Symphony.

“We found that engagement in the B-Sharp program resulted in improved performance on a series of cognitive tests after a 9-month period,” explained Deana Davalos, associate professor at in the Department of Psychology at CSU and the director of CSU’s Aging Clinic of the Rockies. “This happened in spite of including participants with a neurodegenerative disorder.”

This study’s promising results led to research that is now underway in the “Enriched Environments for the Healthy, Aging Brain” project, part of the Catalyst for Innovative Partnership Program funded by CSU’s Vice President for Research. The project includes researchers from the Colleges of Natural Sciences, Liberal Arts, and Health and Human Sciences.

“In our continued studies,” said Davalos, “we hope to better understand the mechanisms of enriched environments that are most beneficial for the aging brain. We’re interested to see whether we can deliver the programs in other ways, like through virtual reality and other types of activities, without losing effectiveness.”

The program will use the various environments to stimulate the brain, measuring the cognitive function of the individuals before and after the stimuli. A system called RBANS (Repeatable Battery for the Assessment of Neuropsychological Status) measures cognitive performance in thirty-minute intervals by testing immediate memory, visuospatial memory, language, attention, and delayed memory. In addition to the cognitive tests, the individuals and their caregivers will periodically be given assessments to discern their mood, well-being, and daily function.

The study’s findings will hopefully show how environmental stimulation helps us optimize our cognitive capacity and brain health as we age, indicate which environments are viable, and allow the team to create intervention plans based on interests and mobility of the aging population and people with cognitive impairment, such as dementia.

Read more on Source.
MESSAGE FROM THE CHAIR

Yet another academic year is ending, and it prompts me to reflect on our accomplishments and look forward to future years. This year we hired a new director for the department’s Psychological Services Center (Debbie Essert, Ph.D.), we conducted a successful search for a neuroscience area tenure track assistant professor (more on that in the Fall 2018 newsletter), and we have been hard at work serving our many undergraduate and graduate students. This spring we look forward to conferring approximately 200 undergraduate degrees and eight new doctoral degrees. We also welcomed our inaugural class of seven students to our new Master’s in Addictions Counseling program and are looking forward to our first graduates from the program this time next year. As to the research enterprise, the fiscal year is not over yet, but we have already exceeded research grant-funded expenses on National Institutes of Health, National Science Foundation, and other agency grants over the entire previous fiscal year ($2.6 million to date), already a 36% increase with two months yet to go! Finally, we also celebrate the very generous planned gift to the College of Natural Sciences and Department of Psychology by Dr. Irvin Perline – see the accompanying story this issue. Dr. Perline’s gift represents the first endowed professorship benefitting the Department of Psychology at CSU. Generous donations such as these by our alumni allow us to make significant progress as we continue to strive for research and teaching excellence.

Don Rojas, Ph.D.
Professor and Chair

DEPARTMENT HIGHLIGHTS

APA Internships Awarded to Graduate Students
The psychology department would like to congratulate three current graduate students who were matched for an APA accredited internship this year. This is a highly competitive process, and our deserving students will travel to exciting new locations next year. Kirsten Graham (right) will intern at Leigh VA Boston Healthcare System (MA Geropsychology). Melanie Kramer (left) will intern at Colorado Psychology Internship Consortium. Meave O’Donnell (center) will intern at Bronwyn University of Washington-Psychiatry (Behavioral Medicine/Neuropsychology).

Associate Professor Jessica Witt Leads Little Shop of Physics Presentation
The Department of Psychology served as a Science Partner for the Little Shop of Physics Open House on February 24, 2018. Led by Associate Professor Jessica Witt, the room was filled with visual illusions to show kids and parents that the world isn’t always what it seems. Eyes popped as CSU students in the Sensation and Perception psychology course and their instructor Martha Amberg revealed the truths underlying the illusions. Little Shop of Physics is based out of Colorado State University and visits schools throughout Colorado, the U.S., and the world. Read more about the program by visiting their website.

Academic Success Coordinator Cassidy McLaren Awarded Cermak Advising Award
This spring, Lead Academic Success Coordinator Cassidy McLaren was awarded the 2017-2018 Cermak Advising Award, the highest honor awarded for academic advising at Colorado State University. “Connecting students with research opportunities and internships, getting excited about their life goals and helping them figure out how to reach those goals, instilling confidence in them and helping them realize their potential, and valuing their experiences are just a few examples of ways I interact with students,” McLaren said. “I have a keen interest in assisting students to shape their life and career interests.” McLaren was recognized publicly on April 11, 2018 in the Lory Student Center Grand Ballroom at the Celebrate! CSU Awards.
Karen Gilbert uses psychology for a lot of things: to figure out priorities and goals, to study effectively – and to find the best way up a climbing wall.

Last fall, the fourth-year Colorado State University psychology undergraduate presented her own research at the international annual meeting of the Human Factors and Ergonomics Society, the world’s largest scientific association dedicated to ergonomics, the study of human factors involved in designing and using machines, systems, and devices. The meeting was held in Austin, Texas.

In her research, Gilbert found that changing the priority of a task affects decision making. She said that when people are allowed to choose the priority of a certain task, such as completing two separate business tasks, this priority drives their decision making. It also drives which task they focus on – more so than when people don’t pick specific task priority or are given priorities by someone else, such as their boss. After expressing interest in doing her own research, Gilbert worked under Chris Wickens, an affiliate professor of cognitive psychology in the College of Natural Sciences. Under his guidance, Gilbert designed her own experiment and co-wrote the resulting paper with Wickens. Gilbert’s research fits within a cognitive psychology multitasking model designed by Wickens, called the strategic task overload management model.

Wickens is well known within the field of cognitive psychology for his multitasking research but is known at CSU for his work mentoring students. Gilbert said that in working with him, she discovered that they also share an interest in rock climbing. Wickens is now Gilbert’s advisor on her undergraduate thesis, which is focused on psychology in rock climbing.

Gilbert hopes to stay within the psychology field and one day earn a Ph.D. in the subject. Her dream job is to work as a professor at a research university so she can keep exploring the psychology of goals, priority, and motivation. Read more here.

Alumna Ava Drennen Navigates a Path to Health Psychology

Colorado State University alumna Ava Drennen, Ph.D., visited CSU on March 8, 2018, to speak about her path to the field of health psychology. Drennen found her niche in psychology as an undergraduate student when she volunteered as a research assistant for Professor Evelinn Borrayo on a project administering surveys to Spanish-speaking women about how health beliefs impacted their breast cancer screening attitudes and behaviors. Through this work, Drennen discovered that health psychology, a field that aims to help prevent illness and improve health, was a good fit for her career.

Drennen pursued a Ph.D. in Clinical Health Psychology at the University of Colorado, Denver. For her Master’s project, Drennen used data on Latino/a head-and-neck and lung cancer patients to provide recommendations for a patient navigation program. Her thesis recommendation assisted in the development of a program that is now being tested by Professor Borrayo in a clinical trial across six hospitals in Colorado. Drennen reflected on how she began working on this project as a McNair scholar as a CSU undergraduate, emphasizing that student projects can eventually have a positive impact on the lives of others. For her doctoral dissertation, Drennen developed and evaluated a psycho-social and psycho-educational program for medically underserved Latina breast cancer patients. Drennen served as one of the clinicians who delivered the intervention to these women.

Drennen currently works in private practice as a health psychologist specializing in chronic pain management. For example, if a patient experiences a car accident and suffers from a broken leg, medical doctors will treat the physical injury. However, after the patient is released from medical care, what resources are available if they still suffer from chronic pain? It is possible that they will also experience anxiety from driving or difficulty exercising how they used to. These aftereffects can impact the patient’s mood, stress level, quality of sleep, and overall sense of well-being. A health psychologist can help patients learn to better manage their chronic pain, as well as any associated psychological or behavioral concerns. According to Drennen, “What looks like a simple injury from a medical standpoint can be a complex injury that needs more intervention.”
Colorado State University alumnus Irvin H. Perline (Ph.D., psychology, ’71) has generously prepared a planned gift in the form of a college-level endowed professorship to the College of Natural Sciences in the broad discipline of neuroscience, with preference given to the Department of Psychology. The appointee will conduct research in behavioral neuroscience. The appointee will have an outstanding research program, a commitment to continuing research in neuroscience, a strong value for interdisciplinary scholarship, excellent teaching skills, and the ability to bring academic and experiential diversity to the college.

Dr. Perline graduated with his Ph.D. in Psychology from CSU in 1971. His dissertation was entitled “Differential Behavioral Responding to Pregnancy Blocking Urine in Crowded and Mated Female Mice.” Dr. Perline’s advisor was Professor David Avery, with Professors Viney, Cross, Herbert, and Hopwood as other committee members. Dr. Perline holds membership in the American Psychological Association, the Society for Neuroscience, the American Society of Clinical Hypnosis, the Association of Threat Assessment Professionals, the National Registrar of Health Service Providers in Psychology, and the Arizona Psychological Association. A licensed psychologist in the state of Arizona, Dr. Perline founded Century Diagnostics, Inc., a psychological corporation, that provided computerized diagnostic Rorschach interpretation to psychologists and psychiatrists worldwide. He has also written a handbook on Rorschach diagnostics and lectured to professional audiences on the topic. Dr. Perline also has an interest in forensic psychology and coauthored The Psychology and Law of Workplace Violence. His research interests include the area of biological psychology with emphasis on brain/behavior relationships, and he has served as a grant review scientist for the National Science Foundation.

Dr. Perline believes that learning is the basis of human knowledge and significant increase in the ability to manipulate learning will likely impact every field of human endeavor in unpredictable ways. Ultimately, the hope for this increased knowledge is that it will lead to the overall betterment of human-kind.

**FACULTY NEWS**

**Professor Ernest Chavez Named Professor Laureate**

Professor Ernest Chavez was awarded the title of Professor Laureate, the highest professorial title awarded by the college, this spring. The awards ceremony took place in April 2018 and honored Professor Chavez as a role model to the college with contributions to the entire campus. Professor Chavez’s laureate lecture, “Expectativas de los Sueños (The Expectations of Dreams),” explored the importance of cultural backgrounds in both learning and teaching, as well as the critical role of faculty as student mentors. “I am both humbled and honored by receiving the designation of professor laureate from the College of Natural Sciences,” Professor Chavez said. “It is with gratitude that I find my name joined with our department’s previous awardees Professor Lorann Stallones and Professor Jerry Deffenbacher. I want to thank the department executive committee and Department Chair Rojas for nominating me for this honor and in particular Associate Professor Deana Davalos for writing the nominating letter. I am reminded of a quote from Althea Gibson, one of the first African American professional tennis players, ‘No matter what accomplishments you make, somebody helped you.’ This is dramatically true of this designation and in my professional life in general, I have been helped by many fellow faculty members, graduate students, and undergraduates throughout my career, and any honor such as this one requires acknowledgement of the team effort in all of my endeavors.”

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