

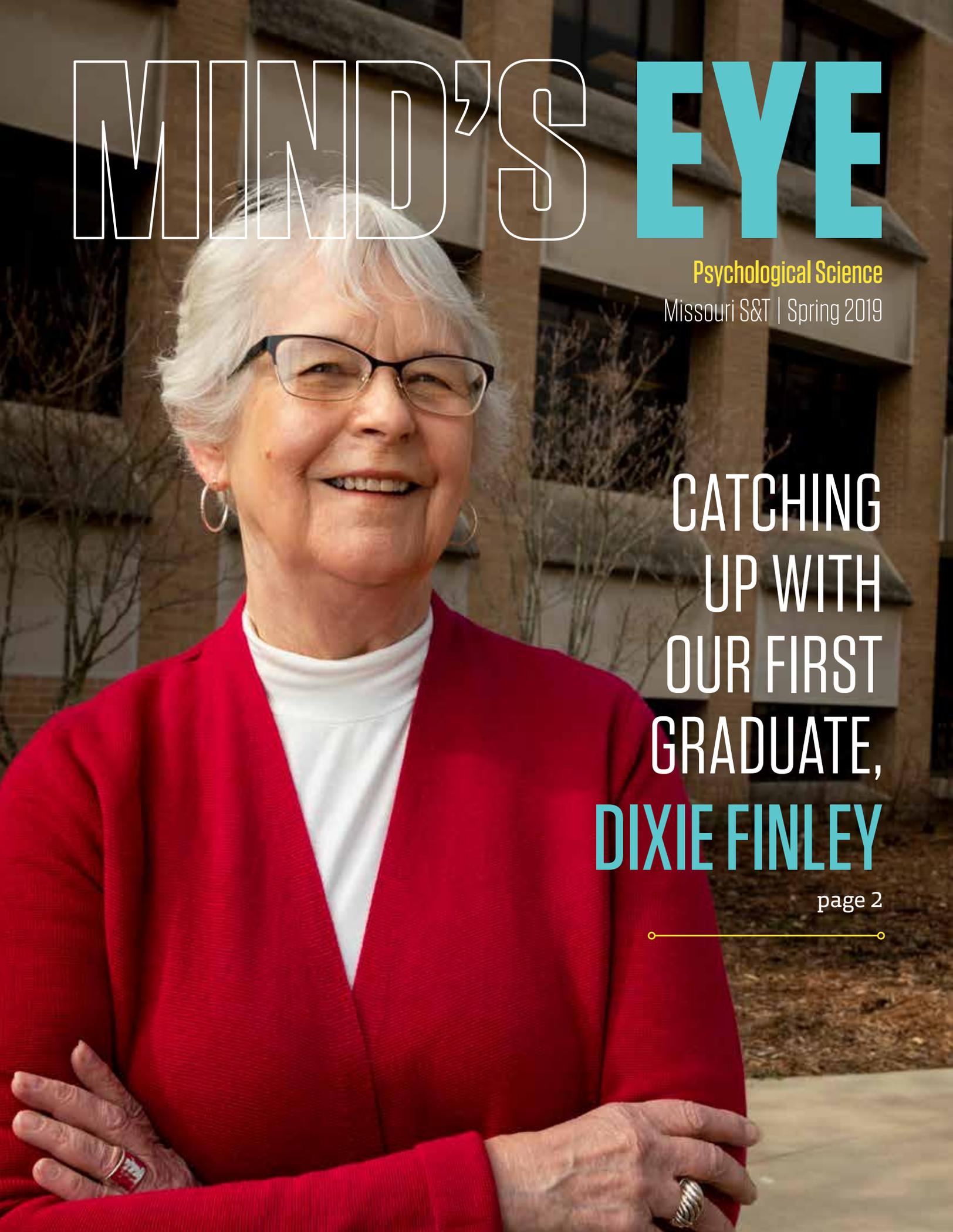
MIND'S EYE

Psychological Science

Missouri S&T | Spring 2019

CATCHING UP WITH OUR FIRST GRADUATE, DIXIE FINLEY

page 2



Transforming learning into leadership

Helping students in psychology make the leap from learning to leadership will shape our future. Because advancing an understanding of the mind begins with mentoring talent.

Last year, your annual support helped 12 undergraduate and graduate students in psychological science by providing travel funds that made it possible for them to present their research at major conferences.

Will you make a difference again?

From time to time, you may receive a phone call from a student caller. We hope you'll take the time to talk. And we hope you'll consider making a gift. Because your support will help our students navigate the path to leadership by supporting the opportunities that open doors.



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Greetings from the psychological science department

Welcome to our 2019 newsletter. Once again, we had a successful year. I continue to be proud of our students and recent graduates. Several of our undergraduates are getting involved in research, some as early as their first year at S&T. We have students presenting at the annual MPA (Midwestern Psychological Association) Conference on topics including college student drinking, increasing grit in first-year students, moral expectations of artificial intelligence agents, and age differences in autobiographical memories. Donations from friends and alumni via phonathon finance the students' cost of attending this important regional conference.

Our graduate program continues to grow. We are again sending students to the national SIOP (Society for Industrial and Organizational Psychology) Conference. Our most recent graduates are working as industrial-organizational psychologists at companies like Coca-Cola, Charter Communications and Red Roof Inn. They have job titles such as data analyst, director of training, project manager and internal consultant.

In this newsletter, you will find a list of the recent accomplishments of the faculty. Our recent faculty hires are building very successful careers. Watching them flourish is one of the joys of my job as department chair.

As always, we appreciate your continued support. We'd love to hear from you; you can send us an email at psych@mst.edu or contact me directly at murray@mst.edu. If you are in Rolla, please feel free to drop by the department.

Warm Regards,

Susan Murray, Ph.D.
 Chair and Professor,
 Psychological Science

Pictured above from top left: **Merilee Krueger**, associate teaching professor; **Denise A. Baker**, assistant professor; **Daniel B. Shank**, assistant professor; **Devin Burns**, assistant professor; **Jessica Cundiff**, assistant professor; **Nancy J. Stone**, professor; **Nathan Weidner**, assistant professor. From bottom left: **Anne Groniger**, administrative assistant; **Amy Belfi**, assistant professor; **Amber M. Henslee**, associate professor; **Clair Kueny**, assistant professor; **Susan Murray**, chair and professor.



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Catching up with

OUR FIRST GRADUATE

Dixie Finley, Psyc'68,
is a trailblazer.

When the now-retired middle school counselor crossed the stage to receive her diploma in 1968, she became Missouri S&T's first psychology graduate.

Finley was part of a significant academic expansion in S&T's history. When S&T became a standalone campus in 1964, its curriculum was expanded to include programs in liberal arts, humanities and social sciences. 1968 was the first year S&T offered bachelor of arts degrees, and Finley was one of the first recipients.

The campus was different then.

"Almost always we were the only females in the class," says Finley, who attended classes while living at home with her husband and two daughters.

"The university has changed in many ways since I graduated," she says. "The students and staff are much more diverse, including the male-to-female ratio in the student body."

After earning a master's degree in counseling from the University of Missouri-Columbia, she began a 27-year career in the Rolla Public Schools, first at Rolla Junior High and then as a counselor at Rolla Middle School, where she worked until retirement in 2000.

"As a middle school counselor, I spent approximately 10 hours a week in classrooms teaching developmental classes," Finley

“The university has changed in many ways since I graduated. The students and staff are much more diverse, including the male-to-female ratio ...”

says. Topics included conflict mediation, anger management, social skills, study skills, alcohol and drug information, and career exploration.

“Middle school students (10- to 13-year-olds) come in so many physical sizes and degrees of mental and emotional maturity it guarantees a very diverse population,” Finley says. “I enjoyed the creative energy and the potential of these preadolescents. I particularly enjoyed the Conflict Resolution Team. These young people learned mediation skills, practiced them and were then available to assist their classmates in resolving conflicts.”

Finley loved her job — and the feeling was mutual among the people she worked with.

In 1997, Finley was named Middle School Counselor of the Year by the Missouri School Counselor Association. Then in 1999, the American School Counselor Association named her National Middle School Counselor of the Year.

“These awards were based on letters of recommendation from students, parents, staff and administrators,” she says. “The selection was made by committees of counselors from Missouri and across the United States. So these awards were particularly meaningful because I was chosen by my peers.”

Today, Finley stays busy with volunteer activities, walking, socializing with friends, visiting grandchildren in Arizona and Minnesota and a sister in Hawaii, and attending sporting events.

Finley’s late husband, Charlie, coached football and track at S&T, and over the years, she developed a love of Miner athletics.

“I still am a Miners fan. I attend many Miner sports events. I enjoy the competition.” □

From near and far, these stellar athletes chose psychological science

Because they’ve already mastered skills like being a great teammate, coachability and failure recovery, former athletes are often predicted to succeed in the workplace after college.

According to a study in the *Journal of Leadership and Organizational Studies*, former athletes tend to have higher-status careers than non-athletes, and employers expect them to display more leadership, self-confidence and self-respect than those outside of sports.

These S&T athletes and psychology majors all bring a high level of commitment to their sport, educational experience and future careers.

Lexi Netherlain plays left back for Miner volleyball. A freshman from Sullivan, Ind., Netherlain was her high school team’s MVP and was a four-time outstanding defensive MVP. She hopes to earn a master’s degree in industrial-organizational psychology to help businesses in a similar way to coaching sports. “I like to make sure my teammates don’t get down and that they know what to do,” she says.



Roderick Chapman, a senior from Los Angeles, was a defensive back for the Miner football team. He was named to the 2018 Don Hansen NCAA Division II All America Team and received All-American honors for the first-team ALL-GLVC selection. One of four Miners participating in this year’s NFL senior pro day, Chapman has his eye on the NFL draft. He will be the first college graduate in his family. “I’m a leader in my own way,” says Chapman of his teammates. “If I’m ready, they’ll be ready.”



Laura Rodriguez, a freshman from Gran Canaria, Spain, and a Miner basketball player, started playing basketball at age 3 and was on club teams for 12 years. Her team won Spain’s girls’ basketball championship in 2016. She spent two years in Madrid in a rigorous basketball and college-prep program. Rodriguez says psychology is a way to satisfy her curiosity about how the brain works, particularly in adolescents. After college, Rodriguez wants to coach basketball.



Despite differing backgrounds, these athletes agree that the first semester at S&T is hard. They’re thankful for the support of faculty, and they rely on their teammates and other S&T athletes as a network of support and friendship.

“I’m here for my team,” says Rodriguez, “and they help me — they’re always with me.”



CAN INCREASING 'GRIT' LEAD TO STUDENT SUCCESS?

Susan Murray (left) and Stephanie Dukes study how academic intervention affects student "grit."

Current studies suggest that "grit," or strength of character, is a better predictor of college students' academic success than more commonly used measures like standardized test scores and demographic indicators.

"But a more important question has yet to be answered," says **Susan Murray**, chair and professor of psychological science, "Is it possible to increase grit?"

Murray's team set out to discover if first-year STEM college students could improve their grit score through targeted intervention.

The study, "Improving First-Year STEM Students' Performance and Retention: Is Grit the Answer?" was published in the journal *Quality Approaches in Education* with co-authors **Nathan Weidner**, assistant professor of psychological science, and **Stephanie Dukes**, a sophomore in psychology.

"If we could provide students with a means to increase grit and improve their ability to persevere, we could affect the outcomes of higher education," says Murray. "Retention rates would improve and the return-on-investment for college education expenses would be greater."

Grit consists of two facets: perseverance of effort and consistency of interest, according to a 2007 *Journal of Personality and Social Psychology* article.

To discover if academic intervention could increase the "grittiness" of first-year college students, Murray used an intensive,

three-week summer education program, "Hit the Ground Running" (HGR) made up of 76 incoming first-year college students enrolling in STEM majors at S&T for the fall 2018 semester.

S&T researchers measured students' grit scores before and after the HGR program. After the program, students showed a modest overall increase in their grit score from an increase in the perseverance-of-effort dimension. Their consistency-of-interest dimension showed a small, non-significant change.

"We're encouraged by our results and the potential to increase student success through interventions aimed at increasing grit."

"Having the ability to enhance grit in college students may become an effective method for improving their outcomes," says Murray. "There's more work to do," says Murray. "We're encouraged by our results and the potential to increase student success through interventions aimed at increasing grit."

ALUMNI UPDATES

Dallas Kirk Lewis, Psyc'79, was inducted into the Northeastern Oklahoma A&M Athletic Hall of Fame in September 2018. Lewis, who played basketball at S&T, was named Female Athlete of the Year in 1979 and was the first female inducted into the S&T Athletics Hall of Fame in 1994 and the Broken Arrow Hall of Fame in 2002.

Jonathan Erdman, Psyc'00, a former Episcopal priest, was ordained in June 2018 as a priest of the Personal Ordinariate of the Chair of St. Peter, a special diocese-like entity

created in 2012 by the Vatican for former Anglican individuals, communities and clergy joining the Catholic church.

Fran Dunaway, Psyc'83, co-founder of women's undergarment company TomboyX, was featured in a 2018 Inc.5000 article titled "Forget Amazon: These Are the 10 Fastest-Growing Companies in Seattle." TomboyX is No. 2. The company reported a three-year growth rate of 2,049% with \$5.4 million in revenues in 2017. Dunaway (below left) is pictured with her wife and TomboyX co-founder Naomi Gonzalez.



STONE SERVES AS FACULTY FELLOW

This spring and summer, **Nancy J. Stone**, professor of psychological science, is serving as faculty fellow in the office of the vice chancellor of research and dean of graduate studies. The appointment ends Aug. 31.

In this role, Stone assists with the reorganization of the research and graduate studies offices.

"This includes working on strategic and operational directions for the offices, including new policies and processes that will enhance the function of these two offices," Stone says.

In addition to this administrative appointment, Stone teaches a graduate course on job analysis and performance management. In the fall she will teach industrial psychology to undergraduates in addition to a graduate-level course called Personnel Selection.

She also has several ongoing research and scholarship projects.

"One of my research projects is in collaboration with several other faculty across campus looking at how we can create more tornado-resilient communities," she says. "My current task is to pilot test the measures that will assess individuals' perceptions about tornados and their potential consequences."

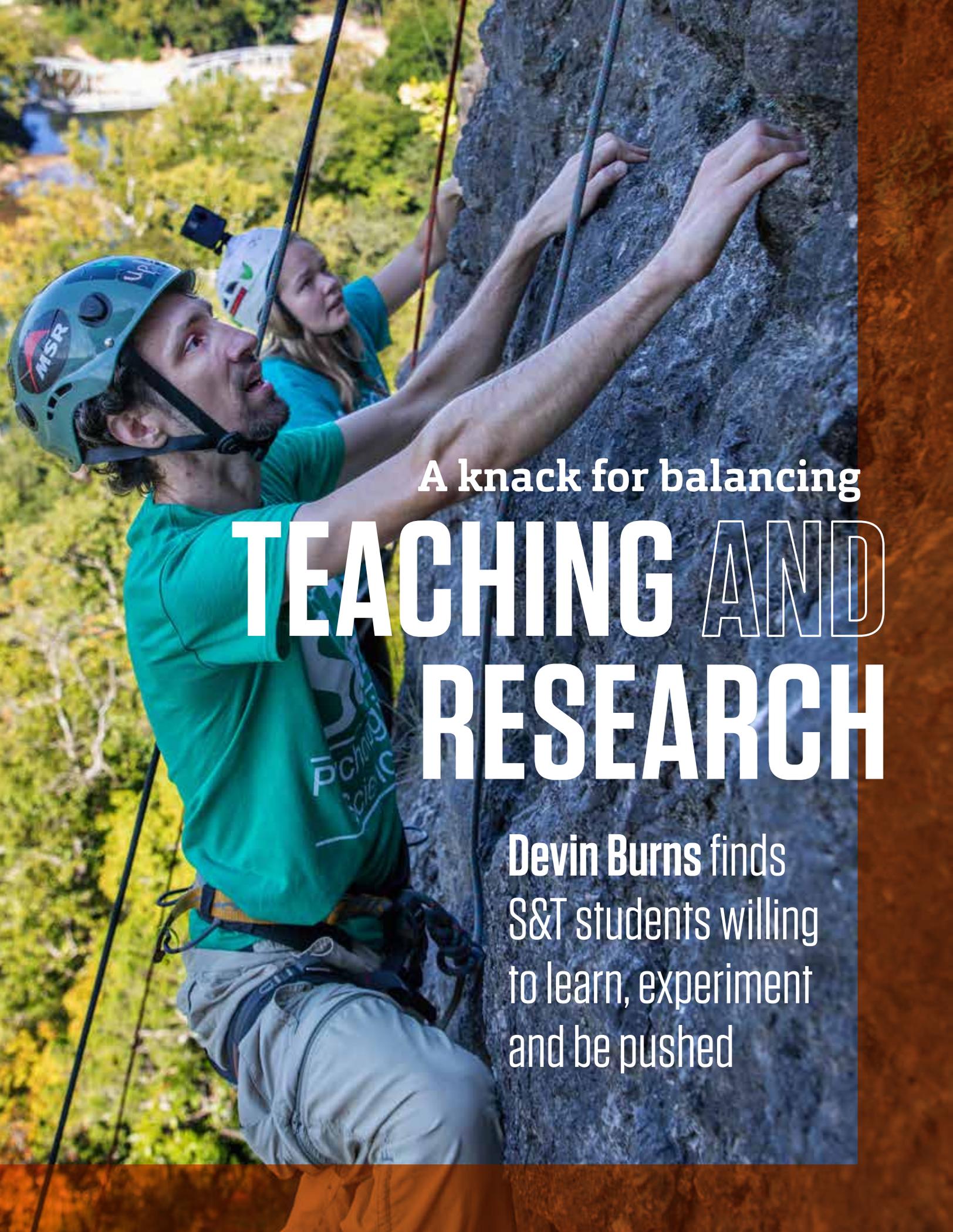
"In addition, I am working on the development of an employability scale with additional colleagues," she says. "We began collecting data in April."



Rob Stodulski, Psyc'97, and four other Miner alumni completed the 10-mile, 20-plus-obstacle Full Tough Mudder course in Wright City, Mo., last August.

Tough Mudder is an endurance series created to test mental and physical strength within a team. The obstacles were designed by British Special Forces to trigger common fears, such as fears of freezing cold water, extreme heights, fire and electricity.

Competing Miners include **Lindsey Dunstedter**, (right front) TComm'09; **Stephen Raper**, (center back) EMgt'85, MS EMgt'87, PhD EMgt'89; **Tara Stone**, (front row, second from left) TComm'09, MS TComm'12; **Rob Stodulski**, (back row, second from left) Psyc'97; and **Cole Thompson**, (back left) Hist'15.



A knack for balancing

TEACHING AND RESEARCH

Devin Burns finds S&T students willing to learn, experiment and be pushed

“I love being pushed by my students to explore new topics they’re interested in.”

Devin Burns, assistant professor of psychological science, appreciates the type of students Missouri S&T attracts.

“I have found the students at S&T have a greater willingness to learn, experiment and be pushed than those at other colleges where I’ve taught,” he says. “There are a lot of really smart students here looking to get involved in research. I like to take the time to tailor projects to their interests, letting the class select a topic that motivates them.”

Burns joined S&T in 2016 and teaches undergraduate Research Methods and Sensation and Perception courses and graduate courses Psychometrics and Statistical Data Analysis.

In his research methods class, Burns and his students coordinated with labs from three other universities on a project to replicate earlier, third-party research showing that wearing particular kinds of clothing could influence a person’s core cognitive processes — such as attention.

Their research indicated the previous findings were likely a false alarm, and the group’s paper, “An old task in new clothes: A preregistered direct replication attempt of enclothed cognition effects on Stroop performance,” was accepted for publication in Elsevier’s *Journal of Experimental Social Psychology*.

“Dr. Burns warmly welcomed me at the beginning of my student exchange semester, and I was able to work for him as a research assistant,” says **Charlotte Hohnemann**, a recent graduate student from Germany studying industrial and organizational psychology. “He guided me through independent and responsible tasks, helping me to further develop my experience in the international research and work context.”

Burns grew up in Albuquerque, N.M., where he learned to love the outdoors. He now advises the S&T Rock Climbing Club whose outings draw students, like Hohnemann, from a variety of majors, experience levels and geographic locations.

Burns believes the principles of perception and sensation are important for engineers working in computer science and robotics. He uses the example of climbing to demonstrate how we fundamentally perceive the world in terms of how we interact with it, rather than in objective units of measurement, like feet and inches. For example, when asked to estimate the height of a wall, those better able to climb it will consistently rate it as shorter.

“I love being pushed by my students to explore new topics they’re interested in,” Burns says. “I do my best to position myself as a collaborator, jointly confronting new and confusing ideas, and striking the right balance to help them learn and create knowledge.” □



Above: As an assistant professor of psychological science, Burns teaches undergraduate courses Research Methods and Sensation and Perception. He also advises the S&T Rock Climbing Club and uses climbing to demonstrate how we fundamentally perceive the world in terms of how we interact with it.

Left: Devin Burns and Charlotte Hohnemann rock climb near Devil’s Elbow, Mo.



Amy Belfi



Daniel B. Shank (left) and David Wright

FACULTY accomplishments

Grants

Amy Belfi received an award from Psi Chi Honor Society for “Age-related differences in voluntary and involuntary autobiographical memory;” seed funding from S&T’s Center for Science, Technology, and Society (CSTS) with **David Samson**, assistant professor of arts, languages, and philosophy, to study experiential differences between live and streamed musical concerts; and funding from the University of Missouri Research Board (UMRB) to study age-related differences in involuntary remembering.

Clair Kueny, assistant professor of psychological science, received funding from the UMRB for “Development of Team Processes and Emergent States.”

Devin Burns, assistant professor of psychological science, and principal investigator **Yun Seong Song**, assistant professor of mechanical and aerospace engineering, received \$299,928 from the NSF for a three-year study, “Human Arm Impedance Modulation During Overground Physical Interactions.”

Several faculty received seed funding for research, including: **Nancy J. Stone** (pictured on page 5), professor of psychological science, for “Creating Risk

Awareness of Tornado Disasters to Increase Homeowners’ Preparedness and Property Reinforcement through Virtual Reality Animation;” **Susan Murray** (pictured on page 4), chair and professor of psychological science, and **Amber Henslee**, associate professor of psychological science, with co-investigators for “Cultivating a Culture of Ethics in Students Using an Interactive Online Module;” **Daniel B. Shank**, assistant professor of psychological science, and **David Wright**, associate professor of English and technical communication, for “Unplugged: Understanding Anti-adoption of Google Home and Amazon Alexa;” Shank and **Patrick Gamez**, assistant professor of philosophy, for “Virtue Ethics and Artificial Intelligence: How Does the Dispositional Character of an AI Agent Change Moral Attribution;” and **Jessica Cundiff**, assistant professor of psychological science, for “Effective teaching of gendered workplace inequality: Development of WAGES-Classroom.”

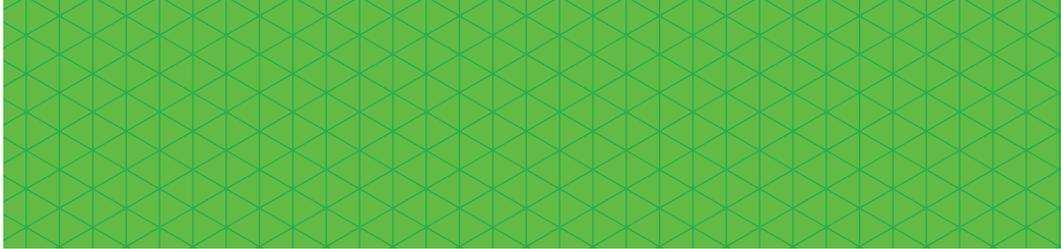
Henslee, Cundiff and **Merilee Krueger**, associate teaching professor of psychological science, received an Affordable and Open Educational Resources Grant from the University of Missouri System for “Adopt AutoAccess for General Psychology Curriculum.”

Articles

Jessica Cundiff co-authored “Testing an intervention for recognizing and reporting subtle gender bias in promotion and tenure decisions” published in the April 2018 edition of *The Journal of Higher Education*, and “Identity-safe or threatening? Perceptions of women-targeted professional programs” published in the journal *Group Processes and Intergroup Relations* in July 2018.

Amy Belfi was lead author of “Rapid timing of musical aesthetic judgments” published in the July 16, 2018, *Journal of Experimental Psychology*. Belfi co-authored “Dynamics of aesthetic experience are reflected in the default-mode network,” published in the March 2019 edition of the journal *NeuroImage*; “The left temporal pole is a convergence region mediating the relation between names and semantic knowledge for unique entities: Further evidence from a ‘recognition-from-name’ study in neurological patients,” published in the December 2018 edition of the journal *Cortex*; and “Damage to the medial prefrontal cortex impairs music-evoked autobiographical memories,” published in 2018 in the journal *Psychomusicology: Music, Mind, and Brain*.

Daniel B. Shank’s published articles include “Who’s Responsible? Representatives’ Autonomy Alters Customers’ Emotion and Repurchase Intentions toward Organizations” in the *Journal of Consumer Marketing*; “When are Artificial Intelligence versus Human Agents Faulted for Wrongdoing? Moral Attributions



Jessica Cundiff



Interim Chancellor Christopher G. Maples

Merilee Krueger



Clair Kueny



after Individual and Joint Decisions” in *Information, Communication, and Society*; “Norm Talk and Human Cooperation: Can We Talk Ourselves into Cooperation?” in the *Journal of Personality and Social Psychology*; “Comparing Groups’ Affective Sentiments to Group Perceptions” in *Current Research in Social Psychology*; and “Attributions of Morality and Mind to Artificial Intelligence after Real-World Moral Violations” in *Computers in Human Behavior*.

Susan Murray’s study, “Enhancing Exam Prep with Customized Digital Flashcards”

was published in 2018 in the *Journal of STEM Education: Innovation and Research*.

Amber Henslee co-authored “Event-specific cannabis use and cannabis use motives,” published in 2018 in the journal *Substance Use and Misuse*. In 2018, as part of the Protective Strategies Study Team, Henslee also contributed to the article “College student mental health: An evaluation of the DSM-5 self-rated level 1 cross-cutting symptom measure,” published in the journal *Psychological Assessment*.

Honors

Clair Kueny is executive board secretary for the regional Gateway Industrial-Organizational Psychology organization and Division 14 APA program chair for the Society of Industrial and Organizational Psychology.

Merilee Krueger was a 2018 mentor for CAFE’s Miner Masters Mentors program, which provides support and resources for all tenure-track, tenured, non-tenure-track and contingent faculty. □



TEACHING AWARDS

Merilee Krueger (far left), associate teaching professor of psychological science, received the Faculty Achievement Award for 2018 and an Outstanding Teaching Award for 2017–18; **Devin Burns** (left center), assistant professor of psychological science, received an S&T Experiential Learning Award in 2019 for his research methods replication project; **Amber Henslee** (right), associate professor of psychological science, received a Faculty Teaching Award for 2018 and an Outstanding Teaching Award for 2017–18; and **Jessica Cundiff** (pictured above), assistant professor of psychological science, received an Open Education Resources Initiative Award from the University of Missouri System for 2018–19 for implementing low-cost textbooks in her courses.



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Mullin Evans
senior, psychology

