

ASU

DEPARTMENT OF PSYCHOLOGY



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New Research and Incredible Students

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Department Chair



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Foundation Professor and Chair
Department of Psychology

Contributors



Kim D'Ardenne, Ph.D.
Research Professor and Science Writer
Department of Psychology



Robert Ewing
Marketing and Communications Manager
Department of Psychology

For any comments or questions,
please contact Robert at Robert.Ewing@asu.edu
or call 480-727-5054



Protective effect of education against midlife depression waning for Americans

Study examines historical changes in physical, mental health of middle-aged adults across 5 nations

By Kim D'Ardenne

Middle-aged adults in the United States today experience worse mental health than older generations of Americans and also their European and Asian peers.

To understand what is happening with middle-aged American adults, a research team led by Arizona State University scientists compared middle age across different cultures and periods of time.

The study examined how physical and mental health in midlife changed over time and in different countries. American adults currently in their 40s, 50s and early 60s have more symptoms of depression and worse memory recall than older Americans did when they were

the same age. This pattern was found in Australian middle-aged adults but not in those living in Germany, South Korea or Mexico.

Years of education was associated with better mental health in midlife, but the strength of this buffering effect has waned for Americans currently in their 40s, 50s and 60s relative to older American generations and to middle-aged adults in Australia, Germany, South Korea and Mexico.

This work was published on Dec. 16 in *American Psychologist*.

"The protective effect of education is waning in the U.S. People born in the 1950s and 1960s who have a college education report more depressive symptoms and have poorer memory and overall health than both older American

adults and their same-age peers in other countries with similar economic structures to the U.S.," said Frank Infurna, associate professor of psychology at ASU and lead author on the study.

The study used datasets from the U.S., Australia, Germany, South Korea and Mexico that contain information about the physical and mental health of middle-aged adults over time. For example, participating adults in the U.S. completed an interview every two years that included questions about

their social networks and mental and physical health.

The physical health of adults in their 40s and early 50s improved over time in all five countries included in the study. American adults born in the 1950s and 1960s have been healthier in midlife than people born in the 1930s and 1940s were when they were in their 40s and 50s. In the U.S., this health improvement dissipates by the late 50s and early 60s.

Unlike physical health, the mental health of adults in midlife varied widely across the countries. Middle-aged adults living in Germany, South Korea and Mexico reported improved mental health in recent decades. In the U.S. and Australia, adults currently in midlife reported more depressive symptoms than their older peers. They also reported worse memory.

In general, education protects people from experiencing symptoms of depression or having memory difficulties later in life. But college-educated American adults born in the 1950s and 1960s reported worse memory recall than their older, also college-educated, peers. This pattern did not exist in any of the other studied countries.

“While the future of American middle-aged adults might not look that bright, we can look to other countries to see what works for overall success in

midlife,” Infurna said. “Other countries have more accessible health care systems and social safety nets like paid family leave, subsidized child care, and paid work and vacation leave. These differences can help support adults in midlife, who are often juggling working, parenting and caregiving, and suggest ways the U.S. can make things better.”

Infurna and his collaborators are currently working on additional studies of cross-cultural differences in midlife in pursuit of the goal of finding ways to improve the lives of middle-aged adults in the U.S.

Omar Staben, psychology graduate student at ASU, Margie Lachman, professor of psychology at Brandeis University, and Denis Gerstorf, professor of psychology at Humboldt University, also contributed to the study.



Study reveals how the brain assesses romantic love compatibility



By Kim D'Ardenne

"Do we belong together?" This question can lead to passionate discussions about the status of romantic relationships.

A study from the Arizona State University Department of Psychology has identified neural signatures that occur between romantically involved couples as they work to answer that question. The research, which was recently published in *Social, Cognitive and Affective Neuroscience*, used electroencephalography (EEG) to measure brain electrical activity from both members of a romantic couple as they assessed the status of their romantic relationship.

"At some point in romantic relationships, people are looking for information about whether they are a good fit, whether

they should put more energy and resources into the relationship or call it quits," said Thao Ha, assistant professor of psychology and lead author on the paper. "This study examined how the brain processes information about relationship fit from current romantic partners, which has not been studied, and suggests that the brain might process social feedback differently depending on one's own assessment of relationship fit, relationship status and the source of social feedback."

The study included 49 romantically involved couples who had been dating for less than a year. Each couple was fitted with an EEG cap, which let the research team simultaneously measure the electrical activity from both of their brains. This type of measurement is called dyadic EEG.

The research team focused on a specific brain signal called the P300 that tracks thought processes while making decisions, such as how to evaluate social feedback.

During the EEG collection, the couples answered questions about characteristics of their relationship, like whether they match on communication style, intimacy and physical attraction. Participants then saw their romantic partner's answers, as well as answers from a fictitious group of peers who were described as relationship experts.

"We included answers from these two sources to investigate which answers

about relationship fit were more important – those from fictitious relationship experts or those from romantic partners,” Ha said.

The research team first assessed brain responses when the participants were waiting for the answers from the fictive relationship experts and their romantic partner. Incoming feedback from fictive peers and romantic partners was equally important in this phase of the experiment. But, the P300 was bigger when participants themselves had doubts about whether they fit with their romantic partner on a characteristic.

“This finding suggests that people are getting ready for what is coming: They are attentive to the answers that they are about to receive, which was especially strong when they had doubts about relationship compatibility,” Ha said. “In our daily lives, there is an abundance of relationship feedback from all sorts of sources – friends, partners and social media are just a few. And it would be very costly in terms of cognitive and emotional resources if we were to pay attention to all incoming relationship feedback. These results may imply that we selectively pay more attention to upcoming relationship information when we are unsure about certain aspects of our romantic relationships.”

The research team also assessed brain activity when the answers from the fictive peers and their romantic partner were revealed.

When a participant learned their answer matched their romantic partner’s answer, the P300 was bigger than when the couple disagreed. This was true whether couples agreed they both fit a relationship characteristic or whether they agreed they did not match. This pattern of brain responses was especially strong for relationships in which one or both members desired to keep the status vague.

“Relationship ambiguity affected the size of the P300 response: It was bigger for couples who didn’t want to commit and wanted to keep the relationship ambiguous,” Ha said. “These findings suggest that we are especially

attuned to our partner’s feedback when we are not clear about their commitment, and suggests that we pay a lot of attention to both congruous positive and negative feedback from our romantic partners. Maybe we are trying to figure out the future of the relationship, if we should invest more in the relationship or not.”

The feedback from fictitious peers did not matter in this phase of the experiment, unlike when participants were awaiting answers.

“When relationships are established, what your partner is giving you as feedback about relationship compatibility is more important than peers,” Ha said. “This finding is important because most research has focused on peer feedback.”

Ryan Hampton, a recent graduate of the psychology department, contributed equally to the study.

Study shows body shape can predict whether women devalue themselves

By Kim D'Ardenne

Body shape, not just weight, drives stigma related to overweight and obesity, and now a new study has shown that the location of fat is also linked to how women feel about their bodies.

The work, from the Arizona State University Department of Psychology, showed that women with fat located on the hips, buttocks and thighs devalued themselves less than women of the same weight but with fat located on their abdomens. The study was published in *Social Psychological and Personality Science*.

"Body shape determines how society treats us," said Michael Barlev, assistant research professor at ASU and a lead

author on the paper. "Perhaps because of this, it also determines how we treat ourselves. For women who carry more of their fat in their abdomen, additional fat is associated with more negative thoughts or feelings about themselves, such as lower self-esteem. But for women who carry more of their fat on their hips, buttocks and thighs, the self-devaluation that many people assume comes with overweight or obesity is greatly reduced, and sometimes eliminated."

The researchers analyzed body composition data from the Centers for Disease Control and Prevention and measured body composition and fat location in university student participants. Body shape was related to how women reported feeling about themselves and matched the

social perception of their bodies.

Where fat is located on the body determines body shape but is also indicative of different biological functions and health outcomes. Gluteofemoral fat located on women's hips, buttocks and thighs appears to contribute to offspring brain development and signals future success at having children. Gluteofemoral fat is also connected to fewer health problems than abdominal fat, which is associated with cardiovascular disease and diabetes.

"Fat stigma can be quite psychologically costly," said

Steven Neuberg, Foundation Professor, chair of the ASU Department of Psychology and senior author of the paper. "Understanding the nuanced ways people think about their own body fat is likely to lead to better approaches to reducing not only the costs of such stigma, but also the stigma itself."

The research team also included Ahra Ko, psychology graduate student at ASU, and Jaimie Arona Krems, assistant professor at Oklahoma State University. This study was funded by the Arizona State University Foundation for a New American University, with support from the Mayo Clinic and ASU Obesity Solutions





ASU professor takes part in mindfulness event with the Dalai Lama

By Robert Ewing

Life can feel hopeless and challenging at times, and it can be easy to be overwhelmed. Young adults in particular are experiencing a difficult time worldwide from the pandemic, political polarization and conflict. According to a recent report, over 13% of young adults in the United States have reported experiencing at least one major depressive episode in the last year.

Associate Professor Michelle “Lani” Shiota from the Department of Psychology at Arizona State University is hoping to change the conversation to a message of hope. She

is participating in the event “Embracing Hope, Courage and Compassion in Times of Crisis featuring His Holiness, the Dalai Lama,” hosted by the Mind & Life Institute.

Shiota is a social psychologist who leads the Shiota Psychophysiology Laboratory for Affective Testing (SPLAT Lab). Her research is on emotions, with an emphasis on positive emotions, emotion processing in close relationships and the implications of emotion for health and well-being.

The Dalai Lama has been recognized as a Nobel laureate

for his concern for global environmental problems and promoting nonviolent, interreligious understanding and compassion.

The Mind & Life Institute is a collaborative group that brings science and wisdom together to better understand the mind and create positive change in the world. The group was founded in 1987 by the Dalai Lama; Francisco Varela, a scientist; and Adam Engle, a lawyer and businessman. They seek to relieve suffering through intention and action.

"Mind & Life is a collaboration between His Holiness, the Dalai Lama, and a leading group of academic researchers, particularly in psychology, neuroscience and philosophy," Shiota said. "The goal is to try to understand how Buddhist philosophy and the scientific study of the mind can learn from each other, work together and identify areas of overlap to mutually inform each other."

In addition to Shiota, professors John Dunne from the University of Wisconsin-Madison and Elissa Epel from the University of California, San Francisco will be discussants, along with Thupten Jinpa, who is a translator for the Dalai Lama.

"We will share what psychological science is saying about the mind and about well-being, invite His Holiness, the Dalai Lama to comment on these findings and related questions from the Tibetan Buddhist perspective, and get the ideas out there to the public," Shiota said.

The Dalai Lama's teachings influenced the teachings and practice of Buddhist psychologist Jack Kornfield, as well as the research of psychologists Paul Ekman and Richard Davidson, who are recognized as pioneers in the study of emotions and the brain.

"There is for some people a mistaken notion about Buddhism and Buddhists, which is that they aren't pro-science. In particular His Holiness, the Dalai Lama is quite pro-science and has had a substantial influence on the scientific research around mindfulness and emotions," Shiota said.

Instead of a lecture, this event is designed to be an interactive conversation, with researchers and practitioners acknowledging and addressing the fact that we are living through a really hard time right now — worldwide, there is the pandemic, climate change, intensifying intergroup conflict and accelerating political polarization.

The conversation hopes to touch on the emotional toll and distress facing those who may feel hopeless or powerless in the face of these adversities.

"Many people, young adults in particular, feel that these problems are so great, so much bigger than me, that they seem intractable," Shiota said. "'What can I possibly do?'" So that is eliciting this discussion."

She hopes that the conversation can inform how we can act as a community and help people to manage stressors collectively.

"The purpose of this conversation is to have a dialogue that acknowledges how difficult things are right now, but also integrates evidence from science and wisdom from the Buddhist perspective and practice," Shiota said. "'How do I get through this time in a healthy way with my well-being intact, and maybe even make a difference for the future?'"

Western society often talks about resilience, or the process of bouncing back from hardship, as the mechanism that we can focus on improving. Shiota suggests that this primary focus on the individual is characteristic of Western culture. The Buddhist conceptualization also encourages focusing on how society functions collectively in a constructive way.

"I'm very interested in this question of general well-being, and I'm very excited to be participating this year. What appeals to me is that I am a scientist, but I am also a human being and I genuinely want the answers to the questions that we are asking," Shiota said. "The Dalai Lama is a profoundly wise person who comes from a perspective that is very different from my own, but which I respect enormously."

Shiota is optimistic about the value of engaging in the conversation.

"I hope that someone attending this event would feel a little lighter, a little more inspired and a little more empowered to think through what they can do as part of a community in collaboration with other people."

[Watch the replay](#)



ASU center launches group program to help with stress

By Robert Ewing

Life is stressful, and chronic stress can have serious physical and mental consequences. People now have to cope with the ever-changing demands of navigating a pandemic, stress from school and work, or from financial or health difficulties, and loneliness or conflict in relationships.

To help people cope with stress, the Arizona State University Clinical Psychology Center is launching the Coping Skills Training Group for adults this spring. This group is designed to use therapy-based techniques in a group setting to help build positive skills to improve how people cope and manage stress.

Byron Garcia is one of the psychology graduate students who will run the group. His research is focused on understanding the developmental progression of problem behavior and substance use in minority youth and adolescents. Garcia

is part of the Youth Development, Context, and Prevention lab with Assistant Professor Rick Cruz. Together, their work has a special focus on the intersections of sociocultural, familial and individual factors that contribute to variability in mental health and substance use among Latino children, adolescents and young adults.

"I have a specific focus on studying self-regulation such as impulsivity (and) risky decision-making and how it intersects with different aspects of one's environment like culture, neighborhood, family and peers," Garcia said.

The weekly group is intended for anyone who wants to learn techniques that are applicable to everyday stressors. The service is available to ASU students, faculty, administrators and community members. The sessions were designed by Matt Meier, the

associate director of clinical training based on research conducted in the clinical environment.

"The idea behind these group sessions is to help inform the community with skills that they can implement in their lives to help with general everyday stressors, whether they are related to school, work or relationships," Garcia said.

"These skills could be anything from changing your thinking patterns to learning new skills related to breathing or mindfulness. Additionally, the nice part about these sessions is that you can come and go when your schedule allows it. You don't have to really be enrolled and be coming in on a continuous basis to participate."

ASU researchers among group to receive \$15.7 million NIH grant for the Arizona Alzheimer's Disease

Researchers from Arizona State University are among the leads for a new prestigious grant expected to total \$15.7 million over the next five years from the National Institute on Aging, part of the National Institutes of Health (NIH), to provide continued support for the Arizona Alzheimer's Disease Research Center.

Edson College of Nursing and Health Innovation Associate Dean and Professor David Coon co-leads the Outreach, Recruitment and Engagement (ORE) Core

with Jessica Langbaum from Banner Alzheimer's Institute.

ASU Psychology Department President's Professor Heather Bimonte-Nelson and Roberta Brinton from the University of Arizona co-lead the Research Education Component.

Alzheimer's Disease Research Centers, or ADRCs, are congressionally designated NIH Centers of Excellence. They play crucial roles in the national plan to address Alzheimer's disease, the

advancement of research and care for Alzheimer's disease and related dementias, and the effort to find effective ways to treat and prevent these devastating diseases as soon as possible.

The new grant will help establish the role of promising blood tests in Alzheimer's research, clinical trials and clinical care, and will support Arizona's efforts to help find effective prevention therapies by 2025.





With this new funding, Coon says their core's efforts will continue to focus on recruitment and retention as well as providing education, outreach and engagement programs to help people with and without the disease, their families and professional caregivers.

Coon, who is also the director of ASU's Center for Innovation in Healthy and Resilient Aging (CIHRA), says the ORE Core will also work closely with another team, the clinical core to support their inclusion in research studies to advance the fight against Alzheimer's disease together.

"The ORE Core helps increase awareness about the Arizona Alzheimer's Disease Research Center and the challenges faced by people living with Alzheimer's disease and related dementias and their family caregivers. It is also critically important to remember that until there is a cure, there is care," Coon said. "So, we also develop and evaluate programs and services designed to reduce stress and distress that arise from these challenges."

This work goes hand in hand with several of the ongoing research projects at CIHRA.

"Arizona, like the rest of the world, is aging and growing increasingly diverse. Between now and 2025, Arizona is the state projected to have the greatest increase in its proportion of people living with Alzheimer's disease and related dementias. Both the Arizona Alzheimer's Disease Research Center and CIHRA are dedicated to involving people from diverse backgrounds and listening to their voices to help advance prevention, treatment and care," said Coon.

In her role as co-director of the Research Education Component, Bimonte-Nelson's focus is to cultivate success for future leaders in Alzheimer's disease and related dementias research.

"I consider this role an honor as well as a tremendous responsibility," she said.

Specifically, she says Research Education

Component scholars will have opportunities for personalized, foundational, innovative and multi-disciplinary training using their collaborative cross-institutional approach, optimizing scholar success as trailblazers in a breadth of Alzheimer's disease and related dementias research domains.

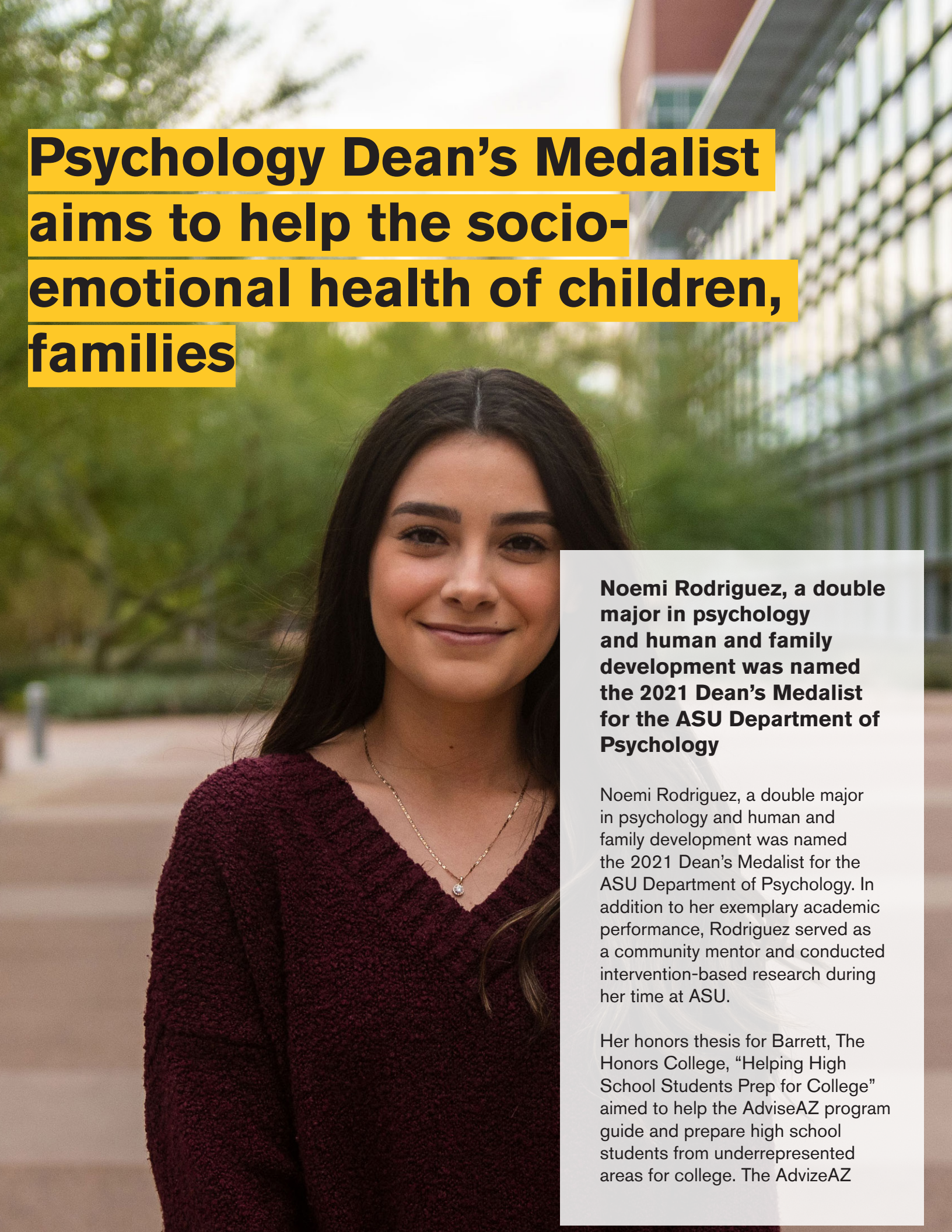
"We are immensely appreciative to our enthusiastic mentors, the state of Arizona and the NIH for supporting our shared goals to facilitate the success of the next generation of Alzheimer's disease and related dementias scientists using an inclusive, cutting-edge, team-based scientific approach to yield a powerful and sustained impact on the field," said Bimonte-Nelson.

The Arizona ADRC includes researchers from seven organizations: Arizona State University, Banner Alzheimer's Institute, Banner Sun Health Research Institute, Barrow Neurological Institute, Mayo Clinic in Arizona, the Translational Genomics Research Institute (TGen) and the University of Arizona.

"We could not be more grateful to our participating researchers and institutions, the state and NIH for the chance to make a profound difference in Alzheimer's disease research and care," said Eric Reiman, director of the National Institute on Aging-supported Arizona ADRC and executive director of Banner Alzheimer's Institute. "In addition to our other goals, we hope to become a go-to resource for the development of promising blood tests, find effective Alzheimer's prevention therapies within the next five years and capitalize on our ADRC resources to support these endeavors."

Since becoming the first multi-institutional research program to receive an ADRC grant in 2001, Arizona has become the most extensive statewide collaboration in Alzheimer's research in the country.

The Arizona ADRC has made groundbreaking contributions in the early-detection diagnosis, study and prevention of Alzheimer's disease, studies of the aging mind and brain, and the roles of brain imaging and emerging blood-based biomarkers in these endeavors.



Psychology Dean's Medalist aims to help the socio- emotional health of children, families

Noemi Rodriguez, a double major in psychology and human and family development was named the 2021 Dean's Medalist for the ASU Department of Psychology

Noemi Rodriguez, a double major in psychology and human and family development was named the 2021 Dean's Medalist for the ASU Department of Psychology. In addition to her exemplary academic performance, Rodriguez served as a community mentor and conducted intervention-based research during her time at ASU.

Her honors thesis for Barrett, The Honors College, "Helping High School Students Prep for College" aimed to help the AdviseAZ program guide and prepare high school students from underrepresented areas for college. The AdviseAZ

program is part of AmeriCorps and hopes to increase the number of low-income high school students and first-generation college students who enter and complete college. These students may have previously received information presented in inaccessible or repetitive ways and Rodriguez wanted to help reduce the doubt and confusion associated with college applications.

Her project shifted the presentation of information from information sessions and stale presentations to an interactive podcast that spoke to students on their level about how to complete applications, secure financial aid or complete the FAFSA.

Rodriguez, a first-generation college student, personally didn't receive much family help in deciphering her future at college. Additionally, as a transfer student during the middle of a pandemic, many of the questions were extremely complicated and didn't necessarily have clear answers. She wanted to conduct psychology research, however in-person research projects had to shut down as a result of CDC guidelines.

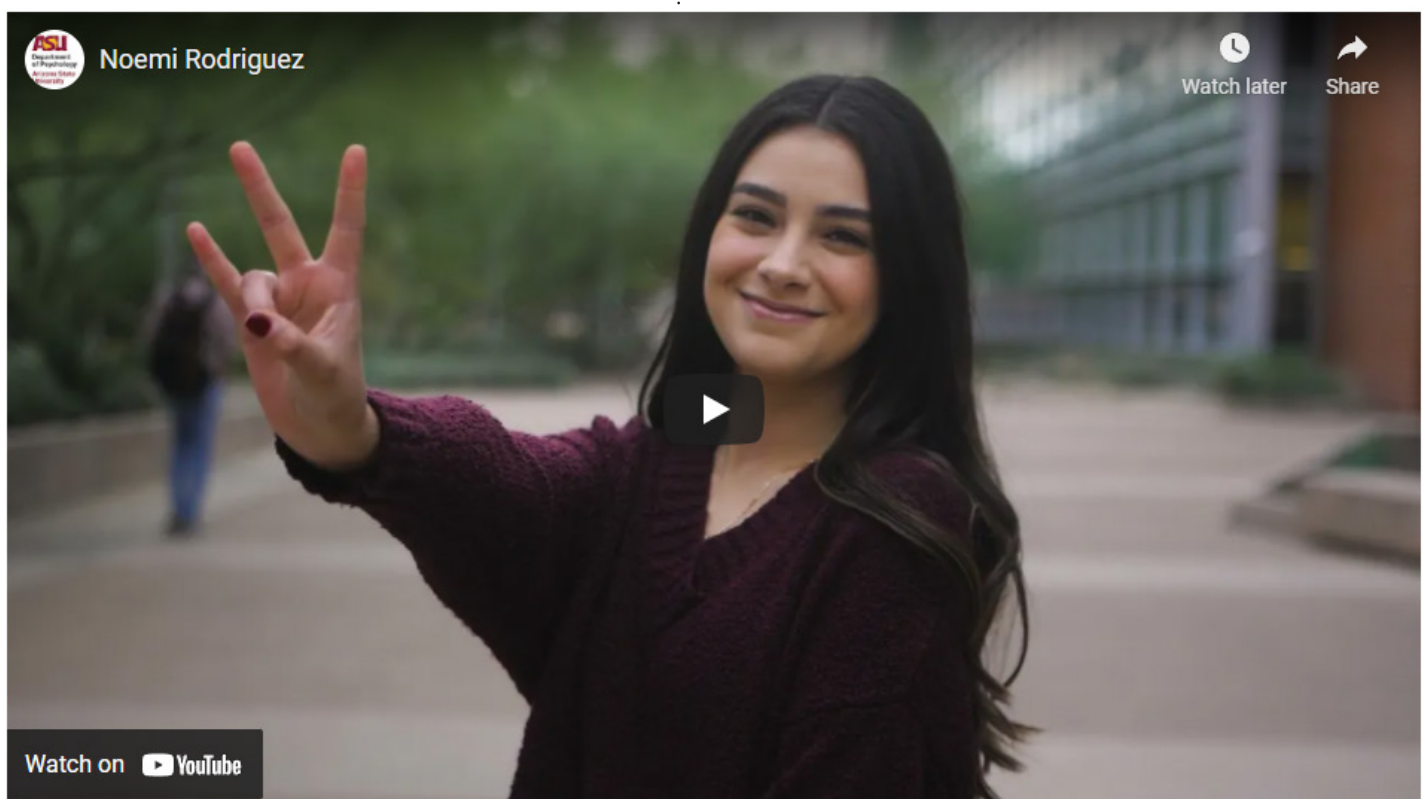
Fortunately, in her senior year, Rodriguez was able to join the ASU SIBS project in the T. Denny Sanford School of Social and Family

Dynamics, promoting socio-emotional development and conflict management within siblings and families. This intervention program is designed to test the effectiveness of family-focused afterschool programs delivered to the Latino community.

Rodriguez also joined the Learning and Development Lab in the ASU Department of Psychology with Assistant Professor Viridiana Benitez. There, she participated in research on bilingual language development, focusing on understanding how young bilingual children experience their two languages. Rodriguez helped to transcribe and code the language found within children's bilingual books and within the talk that caregivers direct at bilingual toddlers during play.

"Noemi is truly an exceptional student in psychology, demonstrating excellence not only in her academics, but also in her research, teaching, and mentorship roles both on campus and within her community," Benitez said. "She is bright and highly motivated, and I have no doubt that Noemi will continue to make a significant positive impact in the field of psychology in the years to come."

The Learning and Development Lab works to understand how young children learn about the world around them. The lab aims to answer questions like how children learn words, how they track the patterns of their environment, and how



language experience, such as bilingualism, affects learning and development.

“My family always supported me in whatever I wanted to do, but they didn’t have the experience to answer many of the complicated questions, such as course selection, or planning my academic future,” Rodriguez said. “They always emphasized that I needed to think about my future and have a career because that was something they never had the chance to do.”

When Rodriguez found out that she was named the Dean’s medalist, she called her

family and they were both excited and stunned.

“I had never won an award like this before, so for them to hear that I was the winner was really validating,” Rodriguez said. “My family is all really proud of me and excited for me.”

Rodriguez hopes to become a clinical psychologist specializing in children and families, and aims to make a difference in the lives of children who are struggling to cope with emotion or conflict.

“I would love to have my own practice for children, adolescents, and families and specialize in mental health and social-emotional development,” she said.



Stress, by itself, can lead to excessive drinking in women but not men

By Kim D'Ardenne

A new study has shown that stress alone can drive women to excessive drinking.

Men who experienced the same stress only drank to excess when they had already started consuming alcohol.

Though rates of alcohol misuse are higher in men than women, women are catching up. Women also have a greater risk than men of developing alcohol-related problems.

Participants consumed alcoholic beverages in a simulated bar while experiencing stressful and non-stressful situations. Stress led women, but not men, to drink more than intended, a finding that

demonstrates the importance of studying sex differences in alcohol consumption. The study was published in *Psychology of Addictive Behaviors*.

“Some people can intend to have one or two alcoholic beverages and stop drinking, but other people just keep going. This impaired control over drinking is one of the earliest indicators of alcohol-use disorders, and we know stress contributes to both impaired control over drinking and dysregulated drinking. The role of stress in impaired control over drinking is understudied, especially in women,” said Julie Patock-Peckham, assistant research professor at Arizona State University and lead author on the study.

The study took place in a research laboratory designed to simulate a bar, complete with a bartender, bar stools and lively conversations. The participants included 105 women and 105 men. They were randomized into different groups, with some experiencing a stressful situation and others a non-stressful situation. Next, half the participants received an alcoholic drink that was equivalent to three cocktails, and the other half received three non-alcoholic drinks. After that, all participants had unrestricted access to alcoholic drinks from the bar for 90 minutes.

“We know that both genes and the environment play a role in problematic drinking. We can’t do anything about the genes, but we can intervene with the environment. Stress and impaired control over drinking are tightly connected, and because stress is something we can manipulate, we tested whether stressors cause dysregulated drinking,” said Patock-Peckham, who leads the Social Addictions Impulse Lab at ASU.

The experimental setup let the research team determine whether stress, the initial drink or the combination of the two caused how much alcohol the participants consumed. The team measured alcohol consumption in total number of drinks consumed and by using breath blood-alcohol content (BAC).

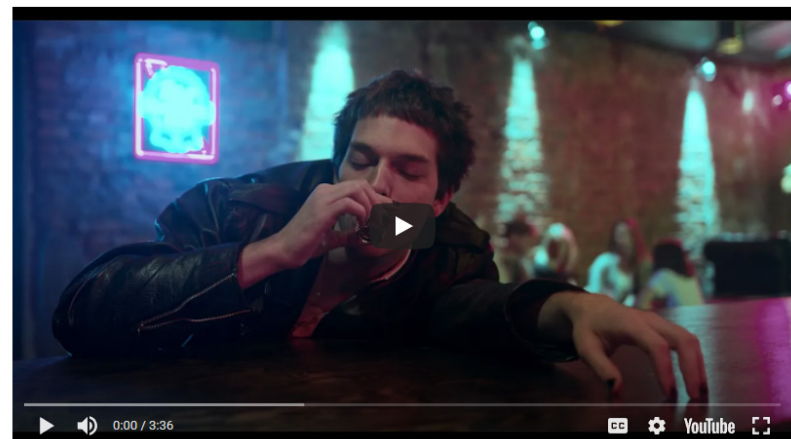
Exposure to stress led to heavier drinking in all participants. Men who received a first drink

with alcohol in it and experienced stress drank more than men who received the placebo.

Whether the first drink was alcoholic or not did not matter for women: Experiencing stress led to heavy drinking.

“That women just needed the stress but men needed the push of already having alcohol on board shows how important this type of research is,” Patock-Peckham said. “The outcomes from alcohol use are not the same for men and women, and we cannot keep using models that were developed in men to help women.”

The study was funded by the National Institute on Alcohol Abuse and Alcoholism and Burton Family Foundation. In addition to Patock-Peckham, the research team consisted of William Corbin, professor of psychology at ASU; Heather Smyth and Arian Rouf, graduate students at ASU; Jessica Canning of the University of Washington; and J. Williams of RTI International.



Psychology students win top prizes from ASU's Institute of Social Science Research

By Robert Ewing

Students presented research findings as part of graduate student poster contest

This fall, Arizona State University psychology students Paula Baker, Adi Wiezel and Matthew Langley each won top awards from the Institute for Social Science Research. Each semester, the institute invites students who are conducting social science research to participate in a poster contest, in which they may present planned or completed research.

Matthew Langley

Langley is a fifth-year psychology doctoral student who is part of the Perception, Ecological Action, Robotics and Learning (PEARL) Lab. His research interest broadly is the investigation of object and scene perception. Langley conducts research with Professor Michael McBeath.

"Specifically, I want to know how aspects of the environment shape our perceptual system's ability to pick up the relevant information present and ultimately inform our experience of the world and the behavior used to act in it," said Langley.

His poster, "Top to Bottom Saliency Bias: Analysis of Object and Scene Location," won first place under the completed-research category and funded his travel home during the holidays.

This research predicted that our perceptual system, co-evolving with the environment,

would have a bias to visually attend to the most informative locations. For objects, there was a bias to attend to similar information located on the top half of the test stimuli, compared with information found on the bottom half. The theory behind this was that most natural lifeforms present the most information on their top halves, such as people, animals or objects.

However, the results found that observers judged comparison stimuli of scenes to be more similar when they shared the same bottom half as the test stimuli, rather than the top stimuli.

"I hoped that people would take away that the perceptual system is coupled to the natural regularities in the environment. Sometimes there are advantages to having biases or shortcuts in order to perceive the environment," said Langley.

Langley also mentors undergraduate Koop Bills and supports his research on walking behavior and right-side passing side preference.

Adi Wiezel

Wiezel is a sixth-year social psychology graduate student and conducts research with Professor Michael Edwards and Associate Professor Michelle "Lani" Shiota, as well as with President's Professor Douglas Kenrick. Her research centers on political ideology, partisan affect and leadership. Wiezel also teaches a seminar course on social psychology in contemporary politics.

"Political ideology is frequently thought of in terms of a continuum between liberals



and conservatives. Other times, it is broken down into attitudes related to social issues (such as abortion) and attitudes related to economic issues (such as taxation). However, the work finding this distinction has sometimes excluded issues that don't sort cleanly into economic or social categories, such as immigration," said Wiezel, adding, "We began investigating the question of how people's attitudes about the government's role in specific policy issues cluster across a broader set of policy issues."

Wiezel's presentation, "Introducing a New Four-Factor Measure of Political Attitudes," examined people's attitudes about the government's role in 27 diverse policy issues.

"We found that people's ideology seems to be more fine-grained than previously considered. Specifically, there seem to be four somewhat independent dimensions of people's attitudes about what role the government should play in: regulation and redistribution; responding to foreigners/outside via immigration and trade; enforcing sociomoral codes; and protecting against potentially dangerous others."

Wiezel's research continues to find that these four dimensions also seem

to be related to differences in individual difference measures, prejudices and behavioral intentions.

Paula Baker

Baker's research focus is on religion and spirituality as an aspect of diversity and multiculturalism. She conducts research as part of the Culture, Adaptation, Religion, Morality, Anthropomorphism (CARMA) Lab and is a student in the Online Master of Science in Psychology program.

"As a 40-year-old, nontraditional student, this recognition is validating and an indication I am on the right track in pursuing a massive career change," said Baker.

The research project she presented aimed to discover what personal characteristics — such as a need for meaning or religious commitment, and religious or spiritual struggles — correlated to the various God representations. Baker wanted to know how people think about God and how personal struggles such as doubt might correlate to how they represent God.

She hopes that this research helps to improve understanding of the diversity of God representations in order to avoid microaggressions and increase inclusivity within religious organizations.

"Realizing there are diverse ways of working with the divine may reduce shame over not believing in a particular 'type' of God promoted by mainstream circles," said Baker.

Sharon Manne Award supports 4 psychology graduate research projects



Four Arizona State University Department of Psychology graduate students have been named Sharon Manne Award Scholars, providing funding for personal research projects that address important and timely mental and physical health issues.

Sharon Manne is currently a professor in the Department of Medicine at the Robert Wood Johnson School of Medicine and is the associate director of cancer prevention and control at the Rutgers Cancer Institute of New Jersey. She has committed to fund research proposals developed by ASU doctoral psychology students that allows them to conduct independent research projects, often outside the scope of what they are working on with their mentor. Manne was a doctoral student in ASU's clinical psychology program and was mentored by Research Professor Irwin Sandler and former faculty member Alex Zautra.

The Manne scholarship provides seed funding to allow students to conduct independent research projects in health psychology, clinical psychology and behavioral neuroscience. These projects often span addiction, memory, neuroscience and hormones, and this semester's recipients are no different.

The recipients this fall are graduate students Sarah Curci, Alexis Torres, Kimberly Yu and Aubrey Rhodes.

Sarah Curci

Curci, a fifth-year psychology graduate student studying clinical

psychology is part of the Las Madras Nuevas research project with professors Linda Luecken and Marisol Perez. This project is a longitudinal study on the socioemotional health of Mexican American mothers and families. The Sharon Manne funding will allow Curci to explore the role of the grandmother in the long-term development of the children and their mothers.

"Thanks to the Sharon Manne funding, I'll be able to recruit the maternal grandmothers of our sample, so we'll have three generations of data, which I'm really, really excited about," Curci said.

Curci was also recently recognized as a recipient of the 2021 American Psychological Foundation/Council of Graduate Departments of Psychology Graduate Research Scholarship for her proposed dissertation project with three generations of Las Madres Nuevas families, "Intergenerational Mechanisms of Resilience Promoting Child Biobehavioral Health Among Low-Income, Mexican-Origin Families," and won the Faculty Women's Association Distinguished Graduate Student Award for her work on health disparities in ethnic minority mothers.

Kimberly Yu

Yu is also a fifth-year doctoral student in the clinical psychology training area and she conducts research with Perez in her Body Image Research and Health Disparities lab. Yu's current research addresses disordered eating pathology, body image and eating behaviors specifically among underrepresented,

marginalized or stigmatized populations.

"There are some really great body image interventions out there right now, but there's also a lot of research indicating there are some big disparities in disordered eating and how disordered eating presents among different groups," Yu said.

"For example, disordered eating presents very differently among men compared to women, and might present differently among ethnic and racial minorities compared to Caucasian individuals where there's a lot of research already. Understanding the nuances of how these behaviors differ among these different groups can really inform prevention and prevention science going forward in the future."

The Sharon Manne Funding is allowing her to take advanced statistical training to better understand mixed modeling and growth analysis, as well as paying for the software to run these analyses. This will complement the quantitative psychology training that she is currently receiving in the program and expand her capabilities.

Alexis Torres

Torres is a second-year doctoral student in the cognitive science training area who is mentored by Associate Professor Gene Brewer. She is part of the Memory and Attention

Control Lab and conducts research on how people attend to and process information.

“My broad research focus is attention, specifically why it is that individuals vary in their ability to attend to tasks over long periods of time. Some people may be worse at it or better, and I’m interested in what contributes to those differences,” Torres said.

Currently, Torres is working in collaboration with professors Brewer, Samuel McClure, Daniel Peterson and Edward Ofori on an interdisciplinary project that is focused on understanding the effects of dopamine on attention in Parkinson’s disease patients. A common experience for Parkinson’s patients is the tendency to lose their balance and experience falls, often when they have divided attention.

“What we are trying to understand is whether the decrease in dopamine that occurs due to the disease has an effect on different cognitive abilities like attention,” Torres said.

Torres and her colleagues use fMRI to look at brain activity during these attention tasks and the additional funding will allow her to look at the structural integrity of the brains of people with Parkinson’s, specifically the pathways that are affected by disease progression. She hopes to evaluate performance on more cognitive tasks that measure memory and attention ability while also collecting additional data from more participants.

Aubrey Rhodes

Rhodes is also a fifth-year doctoral candidate in the clinical psychology training area and conducts research under the mentorship of Sandler and Professor Sharlene Wolchik. Rhodes is part of the REACH Institute, a prevention centered research institute within the Department of Psychology, and conducts research with

the New Beginnings Program.

Rhodes is interested in expanding access and improving accessibility in prevention programs like the New Beginnings Program and is modifying the delivery mechanism to a podcast format. With the Sharon Manne Funding, she will be able to run a pilot study to examine the preliminary efficacy of the new programming and to see if similar podcast-style interventions have a future in prevention science.

“I work on a parenting intervention called the New Beginnings Program, which is a program for divorcing families, and I’m working on adapting that program to a podcast format so that it can be free and accessible to any English speaking family anywhere in the world who has a smartphone,” Rhodes said. “What I’m really interested in is investigating a novel telehealth platform to determine does this work?”

She had already begun modifying the program and the additional funding will allow her to find out how users engage with the podcast and conduct focus group interviews with divorcing parents and clinicians to ensure the podcast teaches the skills that are relevant and useful to those families.

A sense of gratitude

“For me personally, I would definitely like to do what Dr. Sharon Manne is doing for us students. It is really humbling to even be here and to be able to contribute to knowledge and work with such amazing and supportive people, in a university that provides so many resources and is so attentive to our needs,” Torres said. “I have this kind of sense of obligation that I want to give back, and I want to continue to make science better — and part of doing that is contributing to us. That’s what Dr. Sharon Manne is doing for us and we are all so grateful!”



New research suggests origin of hallucinations, delusions experienced by people with schizophrenia



By Kim D'Ardenne

Though persistent hallucinations and delusions are defining characteristics of schizophrenia and schizoaffective disorders, their origins are unknown. But something as simple as a bunch of moving dots might suggest how it is possible to see and hear things that are not there.

Imagine looking at a black screen with moving white dots on it. At first, many dots move to the right. Then, after a short amount of time, they switch to moving straight down.

"This task is simple, but not easy," said Gi-Yeul Bae, assistant professor of psychology at Arizona State University. "Because not all the dots are moving toward the same direction, you need to keep paying attention and detect when

the motion changes direction.”

Bae and collaborators recently published a study in *JAMA Psychiatry* using this task. The study shows that people diagnosed with schizophrenia or schizoaffective disorder had difficulties detecting motion changes that were easily reported by healthy control participants. This work suggests that hallucinations and delusions could result from the brain failing to update what is perceived based on new information, like a change in motion direction.

“People with schizophrenia and schizoaffective disorder show different types of symptoms, including hallucinations and delusions, which are at a very basic level unusual perceptual phenomena,” Bae said. “This study tested the idea that hallucinations and delusions might happen because people fail to update perceptual information.”

The research team also measured the severity of psychotic symptoms experienced by the participants diagnosed with schizophrenia or schizoaffective disorder. Symptom severity was positively correlated with how frequently participants with schizophrenia or schizoaffective disorder did not report motion changes.

“The proportion of times a participant with schizophrenia or schizoaffective disorder reported the initial motion direction, and not the change in motion, was significantly correlated with how severe their symptoms were,” Bae said.

The research team replicated the experiment with participants recruited from Baltimore and New Haven, Connecticut. The findings were the same in both experiments: People with

schizophrenia or schizoaffective disorder were less likely to report changes in dot motion, unlike the healthy control participants.

“The replication of these findings provides strong evidence that sensory hallucinations and delusions might be rooted in a failure of updating perceptual evidence,” Bae said.

This study was a collaboration between the ASU Department of Psychology; University of Maryland School of Medicine; University of Chicago, Illinois; Yale University; and the University of California, Davis.



A close-up portrait of a woman with curly brown hair and pink lipstick, looking slightly upwards and to the right. The background is white.

A new perspective on disability

By Robert Ewing

Social psychologist and Arizona State University Department of Psychology alumna Arielle Silverman aims to bring awareness to the challenges facing people with disabilities and ultimately change the way people treat others.

Silverman is an activist and social scientist who is blind. She uses her own experience to advocate for others and to bring awareness to many misunderstandings surrounding disabilities in society.

According to the CDC, over 12 million people in the United States currently have some

form of visual impairment, with over 1 million who are blind.

As a college student, Silverman found that she was often singled out by people who would treat normal achievements differently than her peers, such as passing a class or receiving a good grade on a test. People would grab her when she was walking to a familiar class, thinking that they were being helpful, when it was just disorienting and unwanted. Her achievements were always framed based on her disability, and she wanted to know why.

Silverman's new book "Just Human: The Quest for Disability Wisdom, Respect, and Inclusion," includes personal anecdotes of the hardships she's overcome and things she wishes she could tell a younger version of herself.

"Growing up, I believed that everybody else perceived the world the same way that I did — and of course, not seeing anything wrong with the way that I perceive things. But after learning about the world in my own ways, I eventually realized that not only did they not perceive the world the same way I did, but they thought the way I perceived the world was deficient," Silverman said.

In addition to being a memoir of sorts, the book shares research from social psychologists and disability scholars about not only how to be more inclusive of people with disabilities, but how to be more inclusive of everyone.

"Social psychology struck me as a way to systematically and scientifically answer questions about why people think and act

in certain ways, and I had a lot of questions about blind people. We're not fully included in society, and I wanted to know why there are so many barriers and why people made assumptions about our capabilities that weren't always accurate," Silverman said. "And so I figured that social psychology would be the way to figure out how to answer those questions, and then based on the research findings, figure out how to develop interventions at multiple levels to try to fix some of those problems."

Silverman volunteered her time to speak with the ASU Department of Psychology about her experience as a research consultant and how she used her degree in psychology to create a career that is both rewarding and impactful.

"I call myself a disability research and training consultant. I provide research services to different disability-oriented nonprofit organizations and academic research groups," Silverman said.

Her consulting company, Disability Wisdom, provides researched-based services, such as trainings, cultural competency training, evaluation and knowledge

translation.

"The traditional path with a doctorate in social psychology would be to try to work at a college or university teaching, doing research or writing, but there's also a lot of jobs in industry and private industry or in public service where having a social psychology degree could be helpful," she said.

"For example, I know people who have worked in business or in different research-oriented nonprofits that provide research consulting services or program evaluation services. A social psychology degree gives you the quantitative research skills to be able to do program evaluation in a wide range of fields."

In addition to her consulting work and being an author, Silverman also works as a research specialist for the American Foundation for the Blind. There, she collaborates with other researchers, conducting studies, writing papers and designing research instruments like surveys or interviews and focus group questions.

"The big thing I would tell myself is that you might go through periods of feeling left out, excluded and mistreated, or wondering who you are and where you belong — but there's hope," Silverman said. "Things will work themselves out, and it is important to be positive."



Psychology senior to run marathon to support addiction research

By Robert Ewing

Gage Reitzel, a fourth-year Barrett, The Honors College student, is taking on a new challenge to raise funds to fight alcohol addiction.

Reitzel is running the Mesa Marathon on Feb. 12, and is using the 26.2 mile run to raise \$2,620 toward supporting research on alcoholism and stress.

“I was inspired by a lifelong friend of mine to try and broaden the impact of this run, and used this as a rallying cry,” said Reitzel, who is double majoring in global health and psychology with a certificate in social science research methods. “I want to dedicate this run to the work that’s being done, as well as

to everyone out there who's battling addiction or who knows somebody in their life who's battling addiction. You're not alone."

Reitzel is a research assistant at the Social Addictions Impulse Lab (SAIL) at ASU, which conducts research on stress and drinking, and is in the middle of an ASU PitchFunder campaign aiming to raise \$15,000 to support their research.

"Our lab is looking at how stressful events can change how much people drink within a social drinking context, and we're studying this in a simulated naturalistic bar lab," said Julie Patock-Peckham, director of the lab.

At SAIL, Reitzel helps to research alcohol use disorder and stress, and aims to better understand the statistical side of addiction.

"Gage Reitzel is utterly inspirational, and came up with the marathon run fundraising project on his own. He is a motivated self-starter who took it upon himself to take graduate-level statistics courses in machine learning in the hopes of helping us fight alcohol use disorders better," Patock-Peckham said.

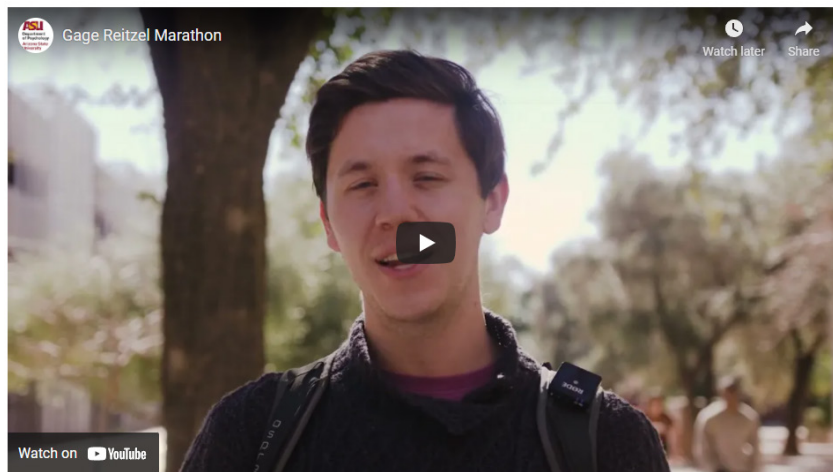
Reitzel's personal interest is in psychometrics, or the scientific study of measurement and assessment.

"I'm really interested in psychometrics and looking more at the statistical side of these applications to get at the crux on why we do what we do, as well as how we're able to measure that qualitatively and quantitatively. I think it can lead to some pretty powerful health outcomes," Reitzel said.

Reitzel plans to get a master's degree in public health, and is personally interested in eventually working for the National Institutes of Health, running community grassroots efforts to fight addiction.

"It would be the perfect spot to hold on to my love of statistics — the reasoning and rationale behind how we're able to know what people are doing and why they are doing it," Reitzel said.

The Department of Psychology currently offers a graduate certificate in addiction and substance-use related disorders, and is launching a master's degree in addiction psychology in the fall of 2022 for students who want to be on the front of the fight against substance use disorders and addiction. For questions or to express interest in entering the program, email addictioncert@asu.edu.





ASU graduate student named to American Psychological Association Science Student Council

By Robert Ewing

Jeri Sasser represents all developmental graduate students to the APA Science Board

Jeri Sasser, a developmental psychology graduate student in Arizona State University's Department of Psychology, was selected as the American Psychological Association's (APA) Science Student Council developmental representative until 2023.

Sasser's research interests focus on critical periods of transition, such as the transition from adolescence to emerging adulthood. She also conducts research on sleep and its relation to stress and well-being. Additionally, she was awarded an honorable mention by the National Science Foundation Graduate Research Fellowship Program for her research on the developmental changes in sleep across the transition to college and its impact on educational attainment and achievement in Latino college students.

"I'm also really interested in the role that sleep plays during

these transitions, as well as how sleep underlies stress and psychopathology," Sasser said.

Sasser is mentored by Leah Doane, an expert on adolescent development and stress, principal researcher of the Adolescent Stress and Emotion Lab and a contributing principal investigator on the Arizona Twin Project

. Sasser primarily conducts research with Doane as part of the Transiciones project.

The Transiciones project is a longitudinal research study funded by the William T. Grant Foundation that follows ASU Latino students and how they adjust in the transition to college. The study conducts research on the daily stress experiences and health behaviors of Latino students and how they contribute to academic



achievement and integration in college.

Doane is a recent winner of the outstanding doctoral mentor award from the ASU Graduate College, and she stresses the importance of mentoring students and helping them find their own voice and research goals.

“Jeri’s excellence in research and commitment to the dissemination of developmental science made her a great candidate for this award. Importantly, she is also a team player, so we know that she will work with the other student council members to advocate for the well-being of graduate students and their research as well as ensure that psychology plays a prominent role in our national scientific agenda,” Doane said.

As part of the APA Science Student Council, Sasser will help with APA Convention programming, write newsletter articles (for APA’s Psychological Science Agenda e-newsletter), review applications for

the APA “Early Graduate Student Research Award,” attend governance meetings and travel to Washington, D.C., to advocate issues related to the funding and promotion of psychology.

“The main aim of the APA Science Student Council is to really just promote the voice of graduate student researchers,” Sasser said. “We serve as an advisory group to the APA Science Directorate and APA Board of Scientific Affairs to help make sure that our voices are heard as part of APA governance.”

Sasser also is the graduate student representative for the ENERGIZE Research Initiative in the ASU Department of Psychology, which aims to connect underrepresented students with research labs in psychology. Sasser helped launch the ENERGIZE Mentorship Initiative, which offers undergraduate students one-on-one mentorship from graduate students in psychology, with the primary aim of promoting students’ engagement, competence and confidence in a research setting.

When students apply to the ENERGIZE program, Sasser helps to “match” them with a graduate student mentor. Since the launch of the mentorship sub-initiative in September 2020, the ENERGIZE initiative has matched over 70 students with mentors. For her work in launching the program, Sasser won the 2021 Samuel Leifheit Memorial Citizenship Award for going above and beyond in the service of others.

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