

Spring 2016

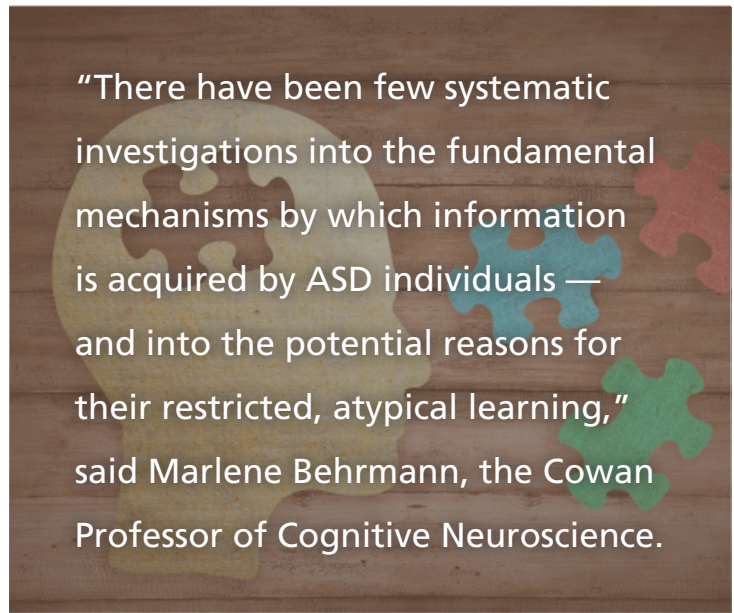
#CMUPsych

DEPARTMENT OF PSYCHOLOGY
DIETRICH COLLEGE
OF HUMANITIES AND SOCIAL SCIENCES

Carnegie Mellon University

Cause and Effect > The cognitive skills used to learn how to ride a bike may be the key to a more accurate understanding of developmental dyslexia. And they may lead to improved interventions.

Professor Lori Holt investigated how procedural learning — how we acquire skills and habits such as riding a bike — impacts how individuals with dyslexia learn speech sound categories. Holt and Yafit Gabay, a former postdoc, found for the first time that learning complex auditory categories through procedural learning is impaired in dyslexia. This means that difficulty processing speech may be an effect of dyslexia, not its cause.



“There have been few systematic investigations into the fundamental mechanisms by which information is acquired by ASD individuals — and into the potential reasons for their restricted, atypical learning,” said Marlene Behrmann, the Cowan Professor of Cognitive Neuroscience.

Repetition and Autism > A new study published in *Nature Neuroscience* shows that training individuals with autism spectrum disorder (ASD) to acquire new information by repeating the information actually harms their ability to apply that learned knowledge to other situations. This finding, by an international research team, challenges the popular educational approaches designed for ASD individuals that focus on repetition and drills.



Happy 100th Birthday! > The Psychology Department kicked off its centennial celebration with cake and a look at the department’s past, present and future. Department Head Michael J. Tarr, Professors Roberta Klatzky and Erik Thiessen and alumnus Dan Yurovsky spoke at the event during Cèilidh weekend.

Learning Is Not a Spectator Sport >

Alumnus and Professor of Human-Computer Interaction and Psychology Ken Koedinger led a team that found that MOOCs central approach — having students watch to learn — is ineffective. Instead, the emphasis on interactive activities as advocated by Carnegie Mellon University’s Simon Initiative helps students learn about six times more.



FROM THE DEPT HEAD

I am excited to write you from the second edition of #CMUPsych. The past year has been filled with wonderful achievements, milestones and events for our community. As head of a department with countless “moving pieces” — each of them excellent — it is often hard to acknowledge all of the many deserving individuals and their accomplishments. However, at its core, one of the fundamental missions of our department, our college and our university is training the best next generation of scientists. In that spirit, this issue focuses on a few of our many amazing undergraduates who have all become deeply involved in cutting-edge research. Outside of the labs, they are equally remarkable. Sophomore Avi Romanoff was part of the CMU student team that won the grand prize in Facebook’s Hackathon. And senior Emily Yeh’s research from her internship at OKCupid was profiled in *New York Magazine*. Beyond these inspiring students, our entire undergraduate population — of majors and others taking psychology classes — is superbly skilled and motivated. I am continually impressed (and somewhat awed) by the quality of our students and their incredible preparedness for the future.

This issue also brings you profiles on some of our world-class faculty, introducing you to both their teaching and research. Having served as head for over two years, I am lucky to work with such a talented group of colleagues. Although we are confident of our strengths, it is a pleasure to see that the wider community also recognizes the excellence of both new and long-standing members of the department. Notable among the many honors received over the past year: Professor Marlene Behrmann was elected to the National Academy of Sciences (NAS) — our country’s most prestigious scientific organization; NAS also acknowledged Professor John Anderson’s lifetime of achievements with the 2016 Atkinson Prize in Psychological and Cognitive Sciences; continuing our tradition of our faculty appearing in the movies, Professor Marcel Just will be featured in award-winning filmmaker Werner Herzog’s latest film, “Lo and Behold: Reveries of the Connected World;” and, lastly, spearheaded by the efforts of Professors David Klahr and Sharon Carver, the Program in Interdisciplinary Education Research (PIER), a collaborative graduate training program with our department and several others at CMU, was successfully funded for the third time by the U.S. Department of Education’s Institute of Education Sciences.

Finally, I would be remiss if I didn’t remind everyone that the department is celebrating its 100th anniversary. Along with a series of colloquia throughout the year that will feature alumni from our program, we are holding a Centennial Symposium/Reunion on May 20-21, 2016. The symposium will feature two days of short talks by many of our graduate student alumni as well as a tribute to Professor Herbert Simon, who would have also turned 100 this year. It will be a great opportunity for everyone to reconnect, reflect, and to think about the next 100 years. For more information, please see: www.psy.cmu.edu/100years/.

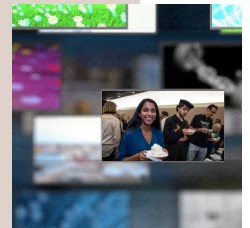
Sincerely,



Michael J. Tarr
Head, Department of Psychology



Professor Marcel Just (right) stands with filmmaker Werner Herzog (left) and CMU Machine Learning Professor Tom Mitchell.



ON THE COVER

Photos from around the Psychology Department are displayed using a periodic visual stimulation pattern. Who do you spot?

FOR MORE INFORMATION:

<http://bit.ly/AviRomanoff>
<http://bit.ly/EmilyYeh>
<http://bit.ly/MarleneBehrmann>
<http://bit.ly/CMUJohnAnderson>
<http://bit.ly/MarcelJust>
<http://bit.ly/PIERgrant>



Q&A

Alumni Q&A with Haley Vlach

BY SHILO REA



For someone interested in learning about children and their developing cognition, there really is no better place to be at than Carnegie Mellon University. Just ask Haley Vlach (DC 2006), who majored in psychology and spent most of her undergraduate years as a Children's School researcher.

Vlach used the laboratory school to investigate children's ability to create representations of their knowledge, such as how children learn to represent things graphically. One of the key findings of her research is children who are coached to observe objects before drawing produce representations with greater detail and conceptual accuracy than children who do not receive observation instruction. In brief, her research suggests that teaching children how to allocate their attention to the world can support their ability to create detailed and accurate drawings.

Now, Vlach is an assistant professor in the University of Wisconsin-Madison's Department of Educational Psychology, where she continues to conduct research on children's learning and cognitive development.

You began researching early childhood cognition as an undergraduate. Why did you decide to focus — and continue to — on this area?

I first learned about children's conceptual development in my Introduction to Psychology class during my freshman year of college. I thought it was really interesting and I kept reading more about it outside of class. I have been interested in children's learning and cognitive development ever since.

What excites you the most about your current work?

I love being a professor. It is very rewarding to work with undergraduate and graduate students, teach classes where I am passionate about the topic, and have the autonomy to pursue my research ideas.

How valuable was it to be able to do research as an undergraduate?

Being involved in research was one of the most rewarding experiences of my time at Carnegie Mellon. I gained a deeper understanding of the scientific process and discovered my passion for research, which led me to go to graduate school and eventually become a professor.

Did you have a favorite class or professor at CMU that helped shape your career or research path?

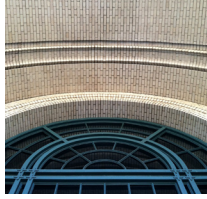
There are many great professors who made college a wonderful experience for me. It takes a village to nurture young scholars, and I am grateful for all the time that my professors dedicated to talking to me about research, teaching and scholarship. I am especially grateful for close mentorship from Dr. Sharon Carver, director of the Children's School, who was my advisor for my research at the Children's School.

What advice would you give someone interested in early childhood cognition research?

Get involved in research early on in college, ideally in your sophomore or junior year. Start by joining a lab as a research assistant and/or working at the Children's School. If you continue to enjoy research, consider doing a senior thesis project during your last year of college. The best way to prepare for graduate school is to conduct an independent research project.

To help CMU's Department of Psychology celebrate 100 years, Vlach will return to campus in April 2016 to give the Chase Lecture: "Forgetting-As-Abstraction: Allowing Children Time to Forget Promotes Their Ability to Learn Language, Categories and Concepts." Learn more at www.psy.cmu.edu/100years/.

Ahead of her campus visit, Vlach answered questions for #CMUPsych about her research and time at CMU.



What's Not Exciting About Neuroscience?

BY ELIZABETH JEFFRIES

When asked how Ph.D. student Kevin Jarbo is making unique contributions to Carnegie Mellon University's neuroscience community, Jarbo's advisor and mentor, Timothy Verstynen, responded with an enthusiastic, "What is he not doing to contribute to the neuroscience community here?!"

"Kevin brings positive attention to the department because he is an active community builder and research facilitator," said Verstynen, assistant professor of psychology. "He is the most well-rounded student I have come across."

Jarbo uses advanced neuroimaging techniques and analysis methods to study the role of the cortex and striatum in reward-based learning and decision making in humans.

In other words, Jarbo explores how both risk and uncertainty interact to influence decisions, and whether people can learn to accommodate both in a way that leads to improved decision making. Furthermore, he is interested in figuring out what characteristics we, as humans, share that make us physically the same, but act differently.

At CMU, Jarbo is making an impact due to his numerous fellowships and publications in top journals such as the *Journal of Neuroscience* and *Neuroimage*. He's also involved with BrainHub, the university-wide initiative that builds on CMU's strengths in biology, computer science, psychology, statistics and engineering to learn more about how the structure and activity of the brain give rise to complex behaviors.

While his academic credits are notable, Jarbo also makes a significant social impact on campus by co-running the social committee for the Center for the Neural Basis of Cognition (CNBC). Jarbo, a native of Southern California, understands what is it like to be new in

town, and has assumed the role of helping first year graduate students adjust to living in Pittsburgh.

"Besides research, Kevin is a great mentor," added Patrick Beukema, Jarbo's CNBC lab partner from the University of Pittsburgh. "We have a tremendous undergraduate student that Kevin mentored over the last several years, and this student is doing outstanding research in his own right."

With still a few years left in his graduate work, Jarbo is open to career options, including working at a research institute.

He is also gaining experience on the other side of the classroom, having taught an Introductory Psychology course last semester.

"There is no doubt that CMU has fostered my personal and professional development in a way that I certainly feel empowered to continue in academic research and instruction at the university level," said Jarbo. "If there is anything that stands out to me, it's that I'm surrounded by some of the most brilliant and inspiring people in the world. I'm honored and humbled to have that opportunity daily."



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KEVIN JARBO



Maya Schumer

BY LAURA PACILIO

Senior Maya Schumer is interested in mindfulness meditation training as a mental health intervention. However, because it is still unclear just how much training is needed to produce effects, Schumer's Dietrich College Senior Honors Thesis will assess whether brief mindfulness meditation — training that is two weeks or less — has a significant effect on emotional regulation and well-being.

Since last February, Schumer has been working with her advisor, Associate Professor David Creswell, to conduct a meta-analysis, which is a systematic review and analysis of the available research articles on a topic. So far, she has found and evaluated about 90 relevant articles and will soon combine the data from all of them together. She will then conduct analyses to determine whether there is an overall effect of brief mindfulness training.

Schumer has also been collaborating with Creswell on an imaging study investigating the potential stress-buffering effects of self-affirmation, a process by which participants think about their most important values. She was recently awarded a Small Undergraduate Research Grant (SURG) to fund this work.

Aside from her research, Schumer also helped start a Carnegie Mellon University chapter of Active Minds, a national organization dedicated to helping students speak openly



Adam Dickter

BY LAURA PACILIO

In just three years, Science and Humanities Scholar Adam Dickter has built an impressive research resume. It all started his freshman year when he took Professor Marlene Behrmann's Hot Topics in Psychology seminar. Intrigued, he approached Behrmann about research opportunities in the Psychology Department.

Arielle Cohen

BY LAURA PACILIO

Senior Arielle Cohen exemplifies Carnegie Mellon University's interdisciplinary spirit. Her undergraduate experience has been a unique blend of history, psychology and medicine.

Although she's a psychology major, Cohen has been conducting research in the history department for the past three years. Her work, directed by History Professor Steven Schlossman, focuses on the story of Louis Tenette, Los Angeles' first African American juvenile probation officer.

Simultaneously, Cohen has been working at CMU's Children's School, an on-campus laboratory preschool and kindergarten. Aside from the positive atmosphere, which she says is the "perfect way to start the day," Cohen enjoys The Children's School because it allows her to apply what she learned in Psychology Professor Sharon Carver's Principles of Child Development course. She has long been interested in learning and development processes and says it's fascinating to watch the children master new concepts like letters and numbers.

In addition to these activities, Cohen has been taking courses in the pre-medicine track and is now applying to medical schools. Because of her interest in children's development, she is seriously considering specializing in developmental pediatrics, a branch of medicine focused on treating children with developmental disabilities. Two summers ago, she had the opportunity to shadow a developmental pediatrician at the Cleveland Clinic and was impressed by how they used information from children's social interactions to help form a diagnosis.



about mental health issues. As president, she helped plan the organization's first event, called Mental Health through Music, and says she has plans to spread awareness about CaPS, the university's counseling center.

Eventually, Schumer plans to apply to graduate programs in clinical affective neuroscience so that she can study the brain structures related to mental illnesses and how mindfulness and other behavioral interventions can intervene. She says that the Psychology Department's research-oriented culture has helped her feel more confident in pursuing this path.

"It's made me into a researcher that I didn't know I could be," she says. "Now, I can really see myself as an active member of the scientific community."

The following summer, Dickter won a SURE, a Small Undergraduate Research Fellowship, to conduct a study in Behrmann's lab. The study investigated how priming participants with either holistic or detail-oriented stimuli affects facial recognition in the left and right hemispheres of the brain. Dickter presented the results of this work last May at the Inter-Science of Learning Center's student and post-doc conference.

Now, Dickter is working on a new project that involves an EEG methodology called Steady State Visual Evoked Potential (SSVEP). Researchers are able to collect data more quickly with SSVEP than with traditional EEG methods because in SSVEP, participants see stimuli several times per second.

Behrmann's lab is the first in CMU's Psychology Department to use SSVEP. Last summer, Dickter won an Ireland Award — an undergraduate research grant — to stay at CMU and help implement it.

"In a typical EEG experiment, you might have 60 trials per minute," he said. "But, with SSVEP, if you're getting six presentations per second, you now have 360 trials per minute."

Dickter was recently awarded a Small Undergraduate Research Grant (SURG) that will continue to fund this work.

In addition to conducting his own research, Dickter wants to help prepare the next generation of psychological scientists. He recently joined Project Ignite, a CMU student organization that connects local high school students with college mentors. The mentors then help their mentees to plan and execute a project related to their future academic or professional interests. Dickter plans to help his group put together a neuroscience project.

"There are biology and psychology classes taught in high schools, but there are very few neuroscience classes that can get students interested in this great intersection of the two," he said. "My hope is that my students will learn something new and that they might consider neuroscience as a possible field after high school."

Regardless of the direction she chooses, Cohen believes medicine is an excellent blend of her varied interests in both science and humanities.

"There is an overlap of the two in medicine because you consider sociological and psychological factors as well as the organic causes of disease," she said.

She is looking forward to contributing to the medical field on both a large-scale, through research, and on a one-on-one level with patients and believes that her psychology training will be especially helpful at the patient level.

"Having an understanding of personality and social psychology helps you to be more responsive," Cohen said. "I think a lot of medicine, for example dealing with diseases related to obesity or smoking, involves figuring out a way to overcome strong psychological mechanisms and helping people find solutions that work for them."





In & Out of the Classroom

With Erik Thiessen

BY LAURA PACILIO

Associate Professor and Director of the Undergraduate Program in Psychology Erik Thiessen has been conducting research, advising and teaching at Carnegie Mellon University since 2004. He genuinely enjoys his job, especially the teaching aspect.

“If someone wants to learn something, I’m interested in helping them figure out how the world works,” he explained.

Rather than sticking to one or two classes, Thiessen is willing to teach any course that the department offers, as long as it is within his area of expertise. During his tenure at CMU, this has included Introduction to Cognitive Psychology, Developmental Research Methods, Cognitive Research Methods and Developmental Core, an introductory class for first-year graduate students. Thiessen is enthusiastic about each subject, and does his best to make his lectures both informative and engaging.

“Dr. Thiessen was the heart and soul of the class, and you couldn’t find him without his smile at the beginning and end of every lecture,” says Matthew Salim (DC 2018), a student in

“When you surround yourself with people who are clever, you learn something,” he said. “You meet more of those people at Carnegie Mellon.”

Thiessen’s spring 2015 Cognitive Psychology course. “He put tremendous effort into presenting the material, and my friends and I were amazed by how easy it was to understand everything we needed to know.”

Last fall, Thiessen taught an advanced psychology class in his primary research area, Infant Language Acquisition. Students read and discussed research articles on topics like bilingualism and why language learning is so difficult for adults. By the end of the semester, they were able to synthesize what they learned, develop their own research questions and write a grant proposal describing ways to study those questions.

ERIK THIESSEN

Thiessen hoped that the class helped students to better understand how theory and data are related. He believes that this is important, even for students who don’t plan to pursue a research career.

“People are constantly using data to make claims about the right way to do things. If you’re a sophisticated consumer of data, you can make better judgments about whether you want to believe those claims,” Thiessen said.

Thiessen is currently studying how infants and adults learn language by paying attention to probabilistic regularities or expectations about what units of language go together. For example, native English speakers have expectations about the type of words that usually follow the word “the.” Thiessen hopes to figure out how sensitivity to probabilistic regularities is related to individuals’ ability to successfully learn language.

Thiessen often invites undergraduates to help with his research and says that collaborating with bright students is one of his favorite parts of working at Carnegie Mellon University.

A Health and Behavior Powerhouse

BY SHILO REA

Today, we take it for granted that stress and disease are linked and that psychological stress, social networks and socioeconomic status impact infections, cardiovascular disease and asthma. Much of what we know about these connections between biology and psychology is because of Carnegie Mellon University's Sheldon Cohen.

Trained in social psychology, Cohen, the Robert E. Doherty University Professor of Psychology, began his career studying the effects of environmental stressors, such as aircraft and traffic noise, on children's cognition and behavior.

"In the 1980s, I became interested in the role of stress in physical health, particularly through its effects on the immune system," Cohen recalled. "To pursue my new interest, I needed to expand my knowledge base. I convinced the National Institutes of Health (NIH) to provide me with support to train in immunology, endocrinology and virology."

The NIH invested well. Cohen was the first to provide scientific evidence that psychological stress influences the immune system in ways that alter susceptibility to infectious disease in humans. He did this by exposing people to viruses that cause the common cold. His systematic work in this area has demonstrated that the longer a stressful event lasts, the greater the risk for developing a cold when exposed to a virus, and that enduring interpersonal conflicts and stress at work are especially potent risks. He has shown that the biological bases for these findings include the effects of stress on the body's ability to control the release of inflammatory chemicals, and on the shortening of telomeres in immune cells — the caps on the ends of chromosomes that indicate how quickly the cells are aging.

Other noteworthy findings include people who sleep fewer than seven hours a day are nearly three times more likely to catch a cold when exposed to a cold-causing virus; children of lower socioeconomic status grow up to be more susceptible to colds; those with diverse social networks — friends, family and group memberships — and those who regularly report being in a good mood are less likely to get a cold when exposed to a cold-causing virus.

Cohen has also published work on the roles of stress, socioeconomic status, and social ties in the development and progression of cardiovascular disease, pulmonary function and asthma. He developed several scales assessing psychological and social predictors of health, including the Perceived Stress Scale (PSS), which is the most widely used scientific tool to measure the perception of stress.

For all of this, Cohen is not short on accolades. He is a member of the National Academy of Medicine, was named one of the 100 Extremely Eminent Psychologists of the Modern Era and

has received top psychology professional awards. He is also one of the few psychologists who frequently publishes in mainstream medical journals such as *JAMA* and *NEJM*.

Yes, Cohen teaches in addition to all of his research — and he calls it one of his favorite parts about working at CMU.

"Our undergraduates are a joy to teach. They are excited about science and often surprise me with their insights. My graduate students and post docs have been colleagues as well as students. Most go on to do work that makes me proud that they were trained at Carnegie Mellon," he said.

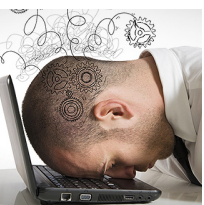
Sarah Pressman, now an associate professor of psychology and social behavior at the University of California, Irvine, was Cohen's graduate student while she was getting her master's and doctoral degrees in social, personality and health psychology at CMU. Their work focused on how positive emotions foster better physical health.

"I couldn't be more grateful for the mentoring that I received from Sheldon," said Pressman (DC 2002, 2006). "He made me the scientist that I am today and he continues to inspire the entire field of health psychology with his stellar research contributions."

One thing that is certain is that there will be more to come from Cohen. He is still publishing results from his landmark cold studies — most recently, he found that hugs protect against the increased risk of infection among participants experiencing stress and that self-ratings of health from adults selected by thorough physical examinations for their "good" health predict immune response to the common cold.

"One current focus of our lab is to identify specific behaviors that influence our feelings of being supported and of belonging to a community, feelings we have found to be important for our health," Cohen said.

In the meantime, you can find Cohen in his Baker Hall office that he loves. He'll most likely be well-rested and cold-free because he does try to follow his own research advice and sleeps about seven to eight hours each night.





The Klatzky Lab

ROBERTA KLATZKY

“The mind is grounded on a very adaptive and successful sensory system,” she explained. “The goal of much of my work is to guide complex behaviors directly through the senses, reducing demands on thought processes. Perhaps it seems strange for a psychologist to say, but I want to relieve people from thinking when they interact with technology.”

BY EMILY STIMMEL

Roberta Klatzky, the Charles J. Queenan Jr. Professor of Psychology, is a world-renowned expert in cognition. Her work — which spans CMU’s Psychology Department, Human-Computer Interaction Institute and the Center for the Neural Basis of Cognition (CNBC) — examines the relationships between human perception and action, with a focus on touch.

“It’s not what most people think about psychology,” she said.

Whether through navigation aids for the blind, tools to improve image-based surgery or interactive games for children, Klatzky’s research seeks to link people’s sensory capabilities to technology, emulating real-world tactile experiences through the use of haptic devices.

Alongside George Stetten, a research professor in CMU’s Robotics Institute, and students from CMU and the University of Pittsburgh, Klatzky demonstrated that ultrasound images projected onto the body by using augmented reality help surgeons with delicate, precise procedures like inserting a catheter. Now, over a decade later, a current project in Klatzky’s lab is building on this research, replacing ultrasound images with a new technology called optical coherence tomography (OCT).

The research, funded by the National Institutes of Health (NIH), utilizes augmented reality to place images in the eye. Unlike virtual reality, which substitutes a simulated environment for the real world, augmented reality overlays perceived space, allowing participants to manipulate elements in their environment.

“The augmented reality image that the surgeon sees will precisely match the orientation and location of the slice of eye tissue that is being measured with OCT,” said Klatzky.

The surgeon must be able to see surface orientation — or slant — under the microscope. A body of psychological research can tell us the accuracy with which people see slant, but there

is very little existing research about the way slant is perceived when it is distorted under a microscope. As a principal investigator, Klatzky is relating these issues to what we already know about basic psychological science. She is working with Samantha Horvath, a Ph.D. student in CMU’s Robotics Institute, and John Galeotti, a research scientist who received his doctorate degree in robotics from CMU in 2007.

In another recent series of studies, Klatzky and her fellow researchers at Disney Research Pittsburgh developed a vocabulary of “feel effects” — patterns of haptic stimulation produced by tactile simulators, or tactors, embedded in a vest or gloves. For example, brief pulses across the body would be interpreted as “rain.” By varying speed and pressure, these rain tactors may be perceived as a sprinkle or a downpour.

This research is bringing early reading experiences to life for young children. When pre-reading children listened to stories accompanied by feel effects, they demonstrated an improvement in comprehension and memory. Children who were actively learning to read also benefited from oral reading experiences enhanced by feel effects.

Interdisciplinary collaboration is a hallmark of Klatzky’s work, which is not only broad in scope, but in its geographical reach. Together with Ed Colgate and Michael Peshkin at Northwestern University and two undergraduate computer science students at CMU, Klatzky is working to develop active touch technology for glass screens. The project, funded by the National Science Foundation (NSF), involves altering the surfaces of commercial flat-screen devices like tablets and smartphones. As the friction on the glass changes under a person’s fingers, illusions can be created to evoke edges, bumps, holes or textures. Like much of Klatzky’s work, this technology has practical applications, including graphical displays for the blind, enhanced games and tactile communication of products like fabrics.

AWARDS

Faculty Honors



The National Institutes of Health awarded a five-year, \$3 million grant to **David Creswell** to study how stress management training can boost healthy aging among lonely older adults.

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Lori Holt received a 2015-2016 JAMES MCKEEN CATTELL FUND FELLOWSHIP to support her research on the cognitive aspects of auditory processing.

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The Department of Education renewed the PROGRAM IN INTERDISCIPLINARY EDUCATION RESEARCH (PIER) GRANT for \$3.6 million, affirming CMU's well-established legacy in education sciences training.

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The National Academy of Sciences will award **John R. Anderson** with the ATKINSON PRIZE in May. He's receiving the prestigious award for revolutionizing how we learn.

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Roberta Klatzky (pictured on pg. 10) was appointed a 2015 AMBASSADOR OF THE TECHNICAL UNIVERSITY OF MUNICH.

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The Society of Experimental Psychologists elected **Robert Siegler** as a fellow and awarded its 2016 Early Investigator Award to **Charles Kemp**.

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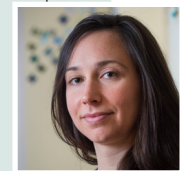
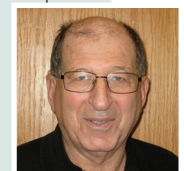
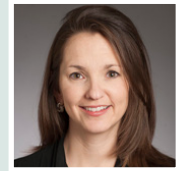
Laurie Heller was one of 10 CMU faculty members who earned GOOGLE RESEARCH AWARDS for Summer 2015.

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Ken Kotovsky co-wrote "Heterogeneous Simulated Annealing Teams: An Optimizing Search Algorithm Inspired by Engineering Design Teams," a paper that won a REVIEWERS' FAVOURITE AWARD at the 2015 International Conference on Engineering Design in July in Milan, Italy.

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Emily Lindsay, a Ph.D. student in psychology, has been selected as a recipient of the 2015 AMERICAN PSYCHOLOGICAL ASSOCIATION DISSERTATION RESEARCH AWARD. Lindsay will use the \$1,000 grant to continue studying mindfulness meditation and its relationship to improved mental and physical health.



Alumna on the Move

Candice Morgan, who received her B.S. in psychology in 2004, was hired as Pinterest's first head of diversity. A work culture specialist, Morgan will head and help build the online scrapbooking startup based in San Francisco's diversity and inclusion team. She previously worked for the consulting firm, Catalyst.

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Carnegie Mellon University publishes an annual campus security and fire safety report describing the university's security, alcohol and drug, sexual assault, and fire safety policies and containing statistics about the number and type of crimes committed on the campus and the number and cause of fires in campus residence facilities during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The annual security and fire safety report is also available online at www.cmu.edu/police/annualreports.

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Save the Dates



100 1915-2015
PSYCHOLOGY

The Psychology Department was founded in 1915 with a focus on applied psychology. Over the past century, it has become a major force in cognitive science, cognitive neuroscience, computational modeling, developmental psychology, social and health psychology and the science of learning.

Join us as we celebrate our past, present and future:

ANNIVERSARY COLLOQUIUM SERIES: THROUGH APRIL 2016

CENTENNIAL SYMPOSIUM & REUNION: MAY 20-21, 2016

For more information and to share your CMU Psychology memories:

www.psy.cmu.edu/100years