Leong Joins Faculty, Studies Neural Mechanisms of Addiction and Habits

Addiction is an urgent societal and economic problem in our country, directly affecting more than 20 million Americans and creating an economic cost of over $740 billion annually.

A major contributing factor to addiction and relapse is the experience of negative emotions, such as stress and anxiety. The research of new Psychology professor Dr. K. C. Leong focuses on how stress/anxiety and habit formation interact to drive addiction behavior in rodents.

Dr. Leong’s research has shown that the development of addiction largely relies on the formation of rigid habit-like behaviors, which causes continued drug-seeking behavior despite serious negative consequences. He has also shown that negative emotions, such as stress and anxiety, facilitate the formation of habits. This suggests that the malformation of habits plays a critical role in the effect of negative emotions on addiction.

Here at Trinity, Dr. Leong will focus on elucidating the neural mechanisms that drive negative emotional processes and how this affects the alcohol addiction cycle.

Dr. Leong’s research combines rodent behavioral models with techniques in molecular and systems neuroscience to investigate the underlying mechanisms through which stress and anxiety interact with addiction. These projects will provide valuable insight into how emotional disorders, such as PTSD, can have such a profound impact on the development and maintenance of addiction.

Dr. Leong is teaching Introduction to Neuroscience and Supervised Research in Fall 2018 and will offer Intro to Neuroscience and Sensation & Perception in the Spring 2019 semester.
I hope your fall is off to a great start! Here are some highlights from the teaching, research, and related activities in the Psychology department.

Dr. Carolyn Becker won the prestigious Piper Professor award last year. The award goes to the best teachers in Texas and is highly selective. She and Dr. Keesha Middlemass also have continued their partnership with the San Antonio Food Bank to study psychopathology and food insecurity.

Dr. Bill Ellison has developed a new app (called “Ellie”) for his lab which collects real-time psychological data. He is beginning to make connections with therapists in the community who may want to partner with him to use the app in their practice.

Dr. Paula Hertel is continuing as Editor of an important cognitive journal (JARMAC). Her active lab investigates cognitive processes that characterize depressive states. She also is enjoying teaching a senior seminar on memory this fall.

Dr. K.C. Leong is starting as a new Assistant Professor of Psychology in the Neuroscience area. He is teaching Intro to Neuroscience and is busy setting up his new lab. He studies addiction and stress in the rat brain.

Dr. Kevin McIntyre is busy writing a statistics textbook with a colleague and teaching statistics. His Open Stats Lab website continues to have many visitors from across the US and around the world. Check it out at https://sites.trinity.edu/osl.

Dr. Kimberley Phillips continues as Chair of the Neuroscience Program. She continues to get external grants for her work with primates and was able to travel to Indonesia and to Rwanda recently to do important field work with primates in the wild.

Dr. Chuck White is back in the classroom after 17 years as Trinity’s Vice President for information Technology and Marketing and enjoying teaching our introductory psychology course. He always has new teaching ideas and it’s great to have him back in our department.

Dr. Harry Wallace is continuing his studies of narcissism on college campuses, including narcissism in the academy. He still rides his bike to campus some days and enjoys going to as many student events as he can.

Dr. Carol Yoder continues to serve as an Associate Editor for the Adult Development Bulletin journal. She also has a new research project examining maritime safety in collaboration with a colleague in San Francisco.

In my lab, we are investigating how children (and adults) learn new using an eye tracker, iPad, and live events in our studies. I also am co-editing a book entitled “Learning Language and Concept from Multiple Examples in Infancy and Childhood” to be published by Springer International.

Our students also had a great year in the department! Thanks to alumni giving to our Student Research Fund for Psychology, many of them were able to attend national or international conferences to present their research. As usual, many of our 2018 grads went on to graduate programs or started important research jobs which will help them as they apply to graduate school later.

We had a great year, and hope you did too! We would love to hear from you. Please e-mail us so we can keep in touch.

- Dr. Childers
Dr. Ellison and student Alec Trahan showing off the “Ellie” smartphone app.

Students presenting a poster at the 2017 meeting of the Association for Behavioral and Cognitive Therapies in San Diego.

Dr. Childers and six students outside Bombay Bicycle Club, Summer 2018.

Senior dinner 2018: Congratulations to our graduates!

Student Priscilla Tovar-Perez shows off data from a cross-cultural study of verb learning in 2-year-olds in Austin, Guatemala City, and Santiago de Chile.

Kevin Gluck ’93 at Alumni Weekend 2018 with Dr. Hertel. Dr. Gluck’s visit included a Colloquium about his experiences conducting cognitive-science research.
Our department has a very active research program, which allows undergraduate students to have intensive research experiences. Students are involved of all aspects of research, including study design, data collection and analysis, and the preparation of publications and presentations. Below are recent publications by Trinity faculty (with Trinity student co-authors highlighted in bold).

**PUBLICATIONS**


Hertel, P., Maydon, A., Ogilvie, A., & Mor, N. (in press). Ruminators (unlike others) fail to show suppression-induced forgetting on indirect tests of memory. *Clinical Psychological Science.*


CONFERENCE PRESENTATIONS


Hertel, P. T., Herrera, P., & Acuff, M. (2018, May). Learning NOT to remember (learning not to ruminating?). Invited presentation at the annual meeting of the Association for Psychological Science, Boston MA.


McIntyre, K.P. (July, 2018). Resources to enhance the teaching of relationship science. Invited panel discussant at the annual meeting of the International Association of Relationship Researchers, Fort Collins, Colorado.


Roger Foster (1988) accepted the position of Senior Managing Coordinator, Program and Data Evaluation for the Department of Human Services, Head Start Division for the City of San Antonio. Roger is moving back to San Antonio after nearly 20 years in North Carolina.

Margery Arnold (1990): It has already been 20 years since I started my 2 year stint as an instructor in the Psychology Department at Trinity. Yesterday, I said goodbye to our first daughter, Mariel Clark, who is now a first year student there. Time flies! We are still living in Irvine, CA. I am nearing the 10 year mark as a psychologist and intern supervisor for our doctoral internship at Western Youth Services, a nonprofit serving kids 2-21 who have Medicaid in Orange County.

Kevin Gluck (1993) recently completed his 22nd year with the Air Force Research Laboratory, where he is now a Principal Cognitive Scientist and the Core Research Area Lead for Personalized Learning and Readiness Sciences. He lived in Mesa, Arizona for a decade and relocated to Wright-Patterson AFB near Dayton, Ohio in 2010, stopping in Berlin, Germany along the way for a visiting scientist position at the Max Planck Institute for Human Development. On the personal front, Kevin and his wife, Julie Thurn, have two amazing kids, now 15 and 12, and two surprisingly friendly cats adopted from a local shelter, a brother and sister who will soon turn 6.


Jason Crain (1995): Hello Tiger Psych folks! Quite a bit has happened in my little corner of the world since our last newsletter. I continue to produce and direct my documentary about the controversy surrounding Shaken Baby Syndrome. My team and I are gearing up to fundraise the remaining budget so we can finish the film in the next 2 years. The big news is that I am an Associate Producer on Wonder Woman 1984 and live in London. I moved here in February and will remain through principal photography and post-production up to the film’s release November 1, 2019. It has been an incredible experience both professionally and personally. I manage all creative aspects of the film working with the director, Patty Jenkins. She has been a dear friend and mentor of mine for 12 years and graciously asked me to work with her on this film. Also, I have fallen in love with the UK and I’m looking into directing projects after I finish Wonder Woman with hopes of moving here permanently. It’s a great place to live and work! My husband stays in the US and visits when he can and is excited about creating a new home in London. Wishing you all the best!

Liz Chiarello (2000) is starting her sixth year as an assistant professor of sociology at Saint Louis University. Liz is a medical sociologist and socio-legal scholar who does work at the intersection of healthcare and law with focal interests in opioid use and reproductive health. In 2018 she was awarded a National Science Foundation CAREER Award to support her research the opioid crisis. Her project examines how workers in healthcare and criminal justice use shared technology in the form of prescription drug monitoring programs to combat the opioid crisis in three states—California, Florida, and Missouri.

Claire Lakin-Koel (2002): In 2016, we moved to College Station where my husband began working as in-house counsel for a large Ag Bank. I began working in November 2017 after a long hiatus from practicing law. Currently, my focus area of practice is in federal civil law.

Lani Steffens (2003): I am living outside DC and working as the Director of Public Health Research for a small social science research firm called EurekaFacts. We do research for social good: to benefit public health,
transportation, citizen engagement, education, etc. In my personal life, I'm continuing to volunteer with the resettled refugee community and have developed a passion for bread baking. Also, my longtime boyfriend (8 years together) decided it was finally time to tie the knot...we're getting married in October!

Becky (Brott) Powers (2003): We welcomed our second child this March, and are enjoying the chaos of having two kids under two. I'm enjoying my third year of hosting Trinity students enrolled in Dr. Becker's healthcare practicum class. These students shadow me and my colleagues in Geriatrics and Palliative Medicine at the San Antonio VA and UT Health San Antonio, and I love having the opportunity to give back to Trinity in this way.

Elizabeth Owens (2006): I recently completed my internship hours, and am now a fully Licensed Professional Counselor in private practice at Counseling Connections of San Antonio. I provide counseling and hypnotherapy for most populations, primarily with the LGBTQ+ community with a focus on transgender care.

Carissa Zimmerman (2006): This year, Nick [Espinoza (Cari’s husband)] and I were selected to be Resident Associates at one of the colleges at Rice University, which means that we will be living among the students (but in our own apartment) and acting as mentors for them. We’re excited to be an even deeper part of the Rice community, and Amelia [their daughter] is thrilled to have 300 instant playmates. I also won the Rice George R Brown Award for superior teaching this year [for teaching statistics, no less!].

Jacquelyn Gross (2007): I graduated in May from the University of Maryland with my doctorate in Developmental Psychology and started a post doc with the Center for Early Childhood Education and Intervention. I'll also be getting married in November!

Alyson Knapp Burnett (2008): I'm still working for Mathematica, where I conduct education policy research, and am finishing my PhD in measurement and statistics from the University of Maryland. I’m in the home stretch for finishing my dissertation, which investigates how to evaluate balance in quasi-experiments that use multilevel propensity score matching. I live in Philadelphia with my husband Tom and our 1.5 year old son, Felix.

Leda McDaniel (2008): Leda is currently pursuing a Doctorate of Physical Therapy at Ohio University and is slated to graduate in May 2019. She plans to pursue an orthopedic or manual therapy residency upon graduation and intends to work with diverse chronic pain populations. She was inspired to go back to school for physical therapy due to her own struggles in healing from chronic knee pain and has recently published a book about her own journey of healing. Her book is available on Amazon in print or as an eBook here: https://www.amazon.com/dp/069212120X?ref=pe_870760_150889320. You can also find her blogging about physical therapy related content here: https://sapiensmoves.wordpress.com/

David Houghton (2009): I just finished my Ph.D. in Clinical Psychology from Texas A&M University, and I am starting a post-doctoral fellowship in the Department of Psychiatry & Behavioral Sciences at the Medical University of South Carolina. In addition, my wife and I are thrilled to have had our first son, Jackson, who was born in December 2017. I can't thank the faculty at Trinity enough for providing the foundation for my current career.

Jeremy Schwark (2009): After spending the last 4 years in Philadelphia, my family and I were excited to move back home to Texas (DFW area) this summer. I accepted a job as a Human Factors Engineer at Abbott Laboratories in their neuromodulation division, primarily working on implanted pulse generators used to treat chronic pain and movement disorders. My work there includes everything from interface design and validation to risk assessments and usability research, ultimately making sure we meet the FDA's human factors requirements for medical devices. My wife is a senior lecturer in the psychology department at UT Dallas and our daughter, who turns 2 in December, is probably well on her way to a career in psychology as well!
Caroline Crocker (2010): I am currently in my third year of Pediatric residency at University of Arkansas Medical Sciences in Little Rock. I am also applying for Neonatology fellowship programs.


Amanda Draheim (nee Benbow; 2011): I'm currently in my 5th year in a clinical psychology doctoral program at Georgia State University, located in downtown Atlanta. I conduct research on anxiety disorders under Dr. Page Anderson [PH: she has several publications already] and am currently working on my dissertation. I am also happy to share that I recently got married on 8.18.18 at Trinity!

 Aren’t we all glad to hear about these alums? Consider doing your part next year! -PH

NEWS AND NOTES

AWARDS AND GRANTS
ψ Student Ari Bearman received a Murchison Fellowship to work with Dr. Phillips.
ψ Student Alec Trahan received a Murchison Fellowship to work with Dr. Ellison.
ψ Student Priscilla Tovar-Perez received funding from the McNair Scholars program to work with Dr. Childers.
ψ Dr. Becker and colleagues from Oregon Research Institute received a five-year grant from the National Institute of Mental Health (NIMH) to study dissemination and implementation of peer educator programs.
ψ Dr. Ellison received a grant from the Associated Colleges of the South (ACS) focused on promoting learning among underrepresented students in Statistics and Research Methods courses in psychology.

INVITED ADDRESSES
ψ Dr. Hertel gave an invited talk at the Association for Psychological Science meeting in San Francisco.
ψ Dr. McIntyre was an invited discussant at the Conference on Teaching and Research in Economic Education.
ψ Dr. Becker gave invited workshops in Chicago, Miami, and Monterrey, Mexico.
ψ Dr. Becker gave an invited keynote presentation at the Miami International Child and Adolescent Mental Health Conference and was a plenary discussant at the International Conference on Eating Disorders in Chicago.

PROFESSIONAL HONORS
ψ Dr. Becker was named a Fellow of the Association for Psychological Science.
ψ Dr. Becker was elected president of the Society for a Science of Clinical Psychology.

NEW BOOK CONTRACTS
ψ Dr. Childers received a contract for an edited book on language learning to be published by Springer International.
ψ Dr. McIntyre received a contract for a statistics textbook from MacMillan Worth Press.
ψ Dr. McIntyre received a contract for an edited book on interpersonal relationships’ role in the self-concept from Springer Press.

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We enjoy hearing from our alumni. Please send your updates to: phertel@trinity.edu