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Volume 29

# **INPSYGHT**

Department of Psychological Science Newsletter for Students, Alumni, and Faculty



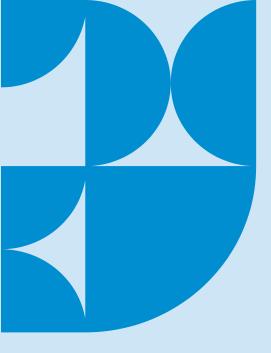
### How to Find and Retain Motivation

By Aisha Rajapakse

When students face midterms and finals, it is almost second nature to get burned out and lose motivation. Enduring a rigorous academic environment is exceptionally challenging when personal performance fails to reflect your finest work. As such, it is essential to find and retain motivation during those challenging times. From an academic standpoint, the biggest change that can be implemented would be to start planning and studying in advance. This may seem like a trivial point to emphasize, but it really does show significant differences in stress levels as well as overall test scores. Research shows that studying and planning strategically, while utilizing more resources efficiently, has proven to increase course grades by one-third of a letter grade, on average. In addition to improved overall grades, students also find that they better absorb class topics when studying in advance and feel a compelling sense of achievement when they correctly identify and understand the main points from that day's lecture.

Developing and maintaining a self-care plan could also play an immense role in reducing stress. It's so easy to solely prioritize work-related goals when dealing with academic stress; however, making sure to incorporate healthy, self-sustaining activities into your schedule has proven to be one of the most effective ways to reduce stress. Taking a quick 10-minute stroll in sunlight, regulates mood and boosts feelings of focus, optimism, and motivation. If walking outdoors isn't an option, then exercising indoors can elevate levels of dopamine, norepinephrine, and serotonin, which all aid with focus, attention, memory, and motivation. Furthermore, exercising regularly has been proven to reduce severity of attention deficit hyperactivity disorder (ADHD) symptoms and improve sleeping habits.

Saying that sleep is important is an understatement. During finals, midterms, or just stressful periods of life in general, sleep is the last thing on our minds. Sacrificing a few hours of sleep for extra study time may seem a viable option when we're stressed, but it's the last thing we should do. Sleep plays a tremendous effort in retaining memory, attention, and decision-making skills, not to mention the copious amounts of chronic illness linked to sleep deprivation. Every lost hour of sleep attributes to a 7% decrease in GPA, so if that's not enough to scare you into bed, I don't know what is! For most people, obtaining 7 to 9 hours of sleep per night is crucial to job and academic performance. Similarly, eating nutritious and balanced foods should be prioritized just as much as sleep, exercise, and time-management. If you implement small changes to study habits, exercise habits, and sleep habits, especially in times of high stress, think about how much happier and successful you could be, not only as a student but as a well-rounded individual. [sources provided on page 5]



# **Psychology Connections**

By Elizabeth Camarena

Based on the popular *New York Times* game Connections. Find the common threads between words. Players must select four groups of four words.

TEMPORAL	FORENSIC	CONCLUSION	WITHERBY
SOCIAL	MINERVINI	CLINICAL	QUESTION
FAIRCHILD	THESIS	FRONTAL	BUDESHEIM
PARIETAL	DEVELOPMENTAL	DATA	OCCIPITAL

[solution provided on page 7]

# The Impact of Artificial Intelligence on Psychological Research

By James Brainard

Integrations of artificial intelligence (AI) have undergone a drastic shift in recent years across an increasingly diverse set of fields. Most people had never used AI in their field prior to the introduction of large-language models like ChatGPT, but now, standards are changing in business, academic, and other fields. We can do far more with AI, however, than just asking a question and getting an answer.

In fact, Al has been in use in the field of psychology for years! Though limited, Al has been used in the field of psychology to create neural networks, expert systems, and knowledge level models since at least the 1980s. In recent years, however, computers and datasets have become so powerful and large that the capabilities of Al have expanded to match. Some major contributions of Al to psychological research include predictive modeling, natural language processing, personalized interventions, and neuroimaging.

Traditional predictive models have historically faced challenges in handling psychological data, which is often complex and dynamic. Historical behavioral data, for example, is incredibly difficult for researchers to quantify and represent in a way that makes sense to a computer model. With Al, and enough historical data, "machine learning" models can quantify and analyze this data far faster than any human.

How can Al quantify historical behavior data, something that often includes qualitative data? Natural Language Processing (NLP), an artificial ability to understand and analyze human language, is a recent development of Al, and it's a game-changer for data analysis. With NLP, researchers can extract meaningful patterns and insights from qualitative data. Anyone who's ever done "creativity coding" will tell you all about how long it takes, but with NLP, this can be done in seconds.

Al also has its place in the world of clinical psychology. Individualized treatment plans are time-consuming and difficult to design. Machine learning models can tailor interventions based on individual characteristics, traits, historical behavior data, and more, offering a new level of personalization that was previously unattainable. This not only improves the effectiveness of psychological interventions, but it also optimizes resource allocation. Psychologists wouldn't need to spend as much time creating these personalized treatment plans and could therefore spend their time helping patients in other ways.

In the realm of neuroimaging, AI is already rapidly transforming research. Brain imaging data is incredibly complex, and AI algorithms have a drastic impact on the amount of work that researchers have to do not only to parse but also to organize and present the data. With powerful AI, researchers can unravel intricate neural patterns that were previously too complex for the statistical tools available. Our understanding of the brain will continue to increase over the next several years, and we will have AI to thank.

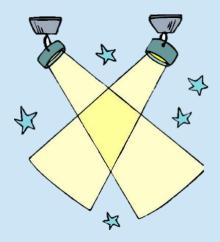
There are, as with everything, caveats with Al. There are important ethical considerations regarding data privacy, consent, and potential algorithm biases. Patients receiving treatment plans should be fully aware of where their data is going, and privacy concerns must be accommodated. Understanding decisions made by some Al models is also difficult; Al does not always give a comprehensible reasoning for its decisions, even if it's well-trained. Al-based predictive models suffer from what is referred to as a "black box" nature, where the inner-workings of a model aren't transparent with respect to how exactly the system arrives at a particular decision, nor are they interpretable to humans with cognitive limits.

Most early research shows that humans and AI do their best work when working in a collaborative manner. While AI has the potential to revolutionize many fields of psychological research, ethical considerations, transparency issues, and accessibility challenges remain. Despite these caveats, collaborative efforts between humans and AI give us an inspiring look into the future of psychology.



# Faculty Spotlight

By Emily Rogge



Psychology Professor Dr. Dustin Stairs has been teaching at Creighton for the last 17 years. If his name sounds familiar, you might have taken *Learning: Basic Processes* or *Drugs and Behavior* with him, or even heard about his rats. Last year, Dr. Stairs applied for fellow status within the American Psychological Association (APA). According to the APA, "Fellow status is an honor bestowed upon APA members who have shown evidence of unusual and outstanding contributions or performance in the field of psychology." Fellow status is only awarded to those who make an impact nationally.

Part of the application process includes letters of support discussing one's influence as a scientist. After Dr. Stairs' application passed all levels of review, he was honored formally as an APA fellow last August for Division28: Society for Psychopharmacology and Substance Use. Dr. Stairs has served in a multitude of different roles as a member of the executive team for Division 28 over the last ten years, and his current position is Fellows Chair.

Dr. Stairs is only one of two professors in the psychology department at Creighton whose research involves non-human animals. Throughout the years, his research has used animal models of behavior to test reinforcing effects of drugs and the impact of environmental enrichment. In recent years, Dr. Stairs has switched gears to study cannabis, specifically with emphasis on effects of vaporized cannabis. This is a new and exciting field of study considering not much is known about vaporized cannabis. This new area of research allows not only for the discovery of new findings, but also an opportunity to establish new protocols for rat models that other investigators can use to study vaporized cannabis or other vaporized substances. Dr. Stairs says that this new field has "reenergized" him. He looks forward to the results and opportunities in his near future. Overall, he finds it "weirdly stressful but at the same time it's a new challenge."

# Internships: Gaining Experience, Building Connections By Carina Cook

Did you know the Psychology Department offers an internship class? All you have to do is apply to the internship class, complete an interview, and then get placed at one of the amazing internship sites in the Omaha community. There are so many placement opportunities, including CHI Health Immanuel Medical Center, Behaven Kids Mental Health Clinical, and One World Community Health Centers.

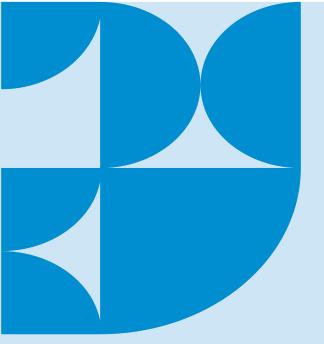
I spent the Spring 2023 semester as a psychology intern with the Child/Adolescent Partial Hospitalization Program, which is a short-term program for youths struggling to cope with mental disorders. Each day consisted of group therapy, recreational therapy, free time, and psychoeducation. As an intern, I got to observe every part of the patients' day, see their progress, and interact with them (they loved playing Uno and chess with me!). It was very exciting to see how well some of the patients did throughout their time in the program, and I was able to see firsthand how therapists worked with patients in a group setting.

Prior to my internship I had very little idea of what exactly I wanted to do in psychology. I had some interest in psychopathology, so I asked to be placed at CHI Health Immanuel Medical Center. Being in the therapeutic environment, seeing group therapy, and talking to the staff and therapists showed me that I could have an extremely rewarding career as a therapist, which is now my post-graduation goal.

I enjoyed my Spring 2023 internship so much that I applied for the internship class again the following semester. This time, I knew that I wanted to do something in the clinical/counseling field in the future. I decided to explore the area of forensic psychology, so I selected Sarpy County Juvenile Justice Center (JJC). My experiences with the JJC were diverse, ranging from home visits for truant youths and those in the court system to observing the housing unit, assisting with their day and night alternative schools, sitting in on therapy sessions, and attending court with some of the youths. It was one of the most intriguing and unique experiences of my life. I met and interacted with youths charged with a variety of crimes, ranging from truancy to threats to sexual assault to murder. I saw the struggles they experienced going through the court system, how their family showed support (or didn't), and how the youths coped with their charges. Viewing these youths as kids who were the product of unfortunate circumstances or terrible choices gave me a lot of empathy for people in the justice system. While I'm not excusing their crimes, as several of them greatly hurt the community and people in it, I did gain a lot from taking a new perspective. Career-wise, I figured out pretty quickly that forensic psychology isn't for me. While the JJC internship didn't point me in a specific direction like Immanuel did, there still is great benefit in ruling things out early so that one doesn't spend extra time or money pursuing them.

Overall, I can't recommend the internship class (course code PSY 326) enough. There is a large variety of sites and placements for several areas in psychology, including clinical/counseling, school psychology, forensic psychology, child development, and industrial/organizational psychology. Dr. Badura Brack, who is the faculty member that runs the course, has done an amazing job establishing relationships with respected organizations in the Omaha community, and these internship opportunities really show what a career in the field could look like. Furthermore, the internship is a great networking opportunity with a future employer–I wasn't the only student to later be hired at their internship site, and I know I won't be the last. It's a chance to figure out what you want to do with your future and gain real-world experience while doing so.





# Listen and Learn By Ava Szatmary

Dr. Marie Curie, Dr. Rosalind Franklin, and Ada Lovelace are names that represent the epitome of ingenuity, courage, and original thought in the world of research. These pioneers are celebrated today for their groundbreaking discoveries, which were made in spite of the adversity these individuals faced regarding their gender. Dr. Carol Gilligan shares much in common with these women, as she also was a pioneer in her field of research, but not without facing some challenges along the way. In 1996, *Time* magazine listed her among America's 25 most influential people.

Last spring, the psychology department invited Dr. Gilligan to visit Creighton and give a lecture on campus. Her lecture left me in awe; I learned so much in the 90-minute presentation yet was yearning for more. Dr. Gilligan fascinates me primarily because her research centers on something many of us do not do well – listen. I used to think I was a good listener, but reading Dr. Gilligan's writing has informed me otherwise. Additionally, Dr. Gilligan's research was conducted with the intent of bringing the voices of women into the conversation. While the world of psychology could be considered relatively inclusive today, the history of the field is lacking in the perspective of women. Dr. Gilligan represents a wake-up call to the field of psychology that research failing to include women is not generalizable to the entire population. Dr. Gilligan advocates that all voices are important when it comes to piecing together answers to the questions posed by psychological inquiry.

In Honors Seminar taught by Dr. Jill Brown this past fall, my classmates and I sought to become critical thinkers like Dr. Gilligan. Each week we read articles from Gilligan or other psychologists who utilized her Listening Guide methodology with the goal of cultivating a better understanding of how to listen to what is not being said. During our weekly sessions, we would split up into "thinking pairs" to practice our listening skills, which most importantly emphasized the detrimental effects of interruption. After reading the literature and working to sharpen our own listening skills, we came up with open-ended, qualitative research questions. We sought to answer our research questions through a series of hour-long interviews with participants that we found through purposive sampling. We then used Listening Guide methodology to analyze the results for our final projects. The final projects consisted of a presentation and paper, which drew together everything that we had learned throughout our time together.

My biggest takeaway from Honors Seminar and Dr. Gilligan's Listening Guide methodology is that people oftentimes will not say what they mean or how they feel, but that these unspoken words can bring to light just as much, if not more, as what one says out loud. "Radical listening" is a skill that must be taught to psychology students and researchers seeking to identify the core of what participants in qualitative research mean, despite what they are actually saying. [sources provided on page 5]



# There's Not Just One Way to Succeed: a deep dive on Dr. Jill Brown's life, education, and career path



The expression "travel broadens the mind" might as well have been written about Dr. Brown. Through her countless travels and experiences with other cultures, it is obvious that she comes with surpluses of advice. I sat down with Brown to steal some of her words of wisdom about life and education.

If you have ever been out with Dr. Brown in public, you would know that she is not one to take the spotlight, even if she should be right in the center of it. This should demonstrate her humility enough, but if it doesn't ,Brown has also been extremely active in her community here in Nebraska, but also with the family she made in Namibia. Starting her travels in the Peace Corps, her world was expanded, and she never looked back.

In regards to her education, Brown recalls that becoming a doctor was never on her radar, which is why I think her words of wisdom should be heard for all to here. Without further ado, below is a transcript of her interview.

**Q:** My focus was on-well you know you're a doctor-and you never correct people on it. How do you feel that you're a doctor?

A: That's real a great question, I actually feel like it stems from the pedagogy that I feel most in line with is something that Bell Hooks [a feminist writer] writes about called "Engaged Pedagogy" which basically means that I am sort of walking along side my students in solidarity and learn more from my students than what I teach them. When I read it, I was like "My god, that is what I feel like my teaching is". I know that it is not what other people feel teaching is, and sometimes it comes in conflict with what others want. I remember when I first came to Creighton, I had a hard time with people calling me "Doctor". Because in graduate school it's a hard stop from not being a doctor and then being one. In some institutions and cultures they don't refer to others as doctor. But here, people saying "Dr. Brown" and it takes me forever to turn to look at them. I think about it more formally; you know I think about what does it do to the power structure or class. Because "Doctor" is a status name, and it has meaning in our culture, like "I have been in school longer than you". But I think not going by doctor challenges the assumption that there is a power difference between students and teachers. I really believe that the best learning is only the things you can teach yourself. Peter Gray has a famous quote that comes from Oscar Wilde that says, "Nothing that is worth knowing can be taught." Some people are better at it than I am, but I think about it all the time when I am prepping my classes. How do I challenge the dynamic of being the person that 'knows' to the one who learns as well.

**Q:** When you were younger, did you always know that you would achieve a high educational status?

A: Oh my god no.

Q: Did you want to?

A: Oh my god no. So I am first generation education status, and I grew up on a farm. I basically had to ask UNL to accept me because I didn't apply to college, so in July before college started, I asked. Originally, I had other plans after high school, but they didn't work out, so I thought maybe I'll just go to college. I don't think I knew anyone with a PhD. I grew up in a rural town. There might have been some people, but I don't remember. We always had a lot of books in my house; my dad had a big library, but my mom was really creative. When I went to college, I totally fell in love with school. It was my cultural revolution. My brain exploded. Just taking all of these classes where I never could imagine people studied these things. And I sort of was good at it. I was book smart, and I never really knew I was book smart. I don't know, there just wasn't the same content in high school. So I think the turning point was being in a place with different perspectives and learning from people who were so different from me.

**Q:** How do you manage such a free spirit in a strict institution with a specific hierarchy?

**A:** I have my mother's spirit. All props to her. I think the world will push us to rules and structures and it takes a lot to say "I am not just going to follow rules, I am actually going to think about what does that rule mean". One thing my mom used to say to me, that whenever someone tells you a rule, you ask why there is the rule and who made it. And she was a little bit of a rebel, but that gave me the clarity that I needed to see the point of doing something.

**Q:** What is something that you would tell your children and other generations to come when pursuing their dreams?

**A:** I would probably tell people that whatever you love, the world needs. I think, especially right now, there are important things that we, and your generation, needs to tackle.

But I think if you are connected to something, there is a way to go down the path of both loving what you love and doing what is in service to the earth, and others, and justice. It is in the connection that I think it is really life giving.

**Q:** Would you say that you have reached your goal of where you are in life-educational wise, relationship wise- would you say this is what you dream of?

**A:** I am always surprised with students at Creighton, that y'all know what you want to do with your life, because I didn't and I am still out with a flashlight, looking for myself. My students that come in saying they're going to be a doctor, I never had that. So I don't think that I have reached my goal yet.

**Q:** What are you doing now? You seem to always be involved? **A:** I don't know if I told you, but I recently took the director role of this nonprofit called the Kalahari People's Fund, and it has been around for 50 years, [creating] small grants for these indigenous people in southern Africa. It is community generated, and it came from these anthropologists who first came in to the Kalahari in southern Africa and just wanted to give back. I have done research in the region for over 20 years so it isn't totally unexpected for me, but it is an example for me of how my work can change and integrate and how relationships are really the thread that weaves it together.

**Q:** Is there something you wish you knew before beginning your education? Or if you could tell yourself something when you were younger?

**A:** I have the best job in the world. I think for me, I never thought that I would achieve this. So, I used to have this experience when I was in the Peace Corp when I would see something that I never could have imagined, nor my ancestors never could imagine, I would just tell myself that this is something that no one will ever take away from me. It is a sense of strength. So I don't know if it is something I would tell my younger self, but it is something I used to know when I was younger. The things you learn are yours.

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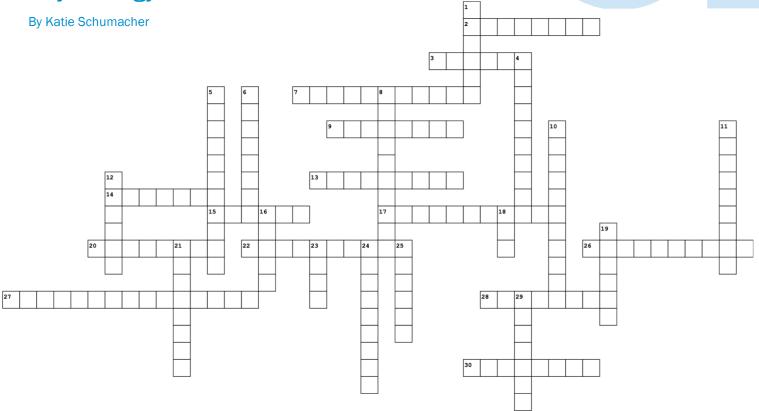
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## **Psychology Crossword**



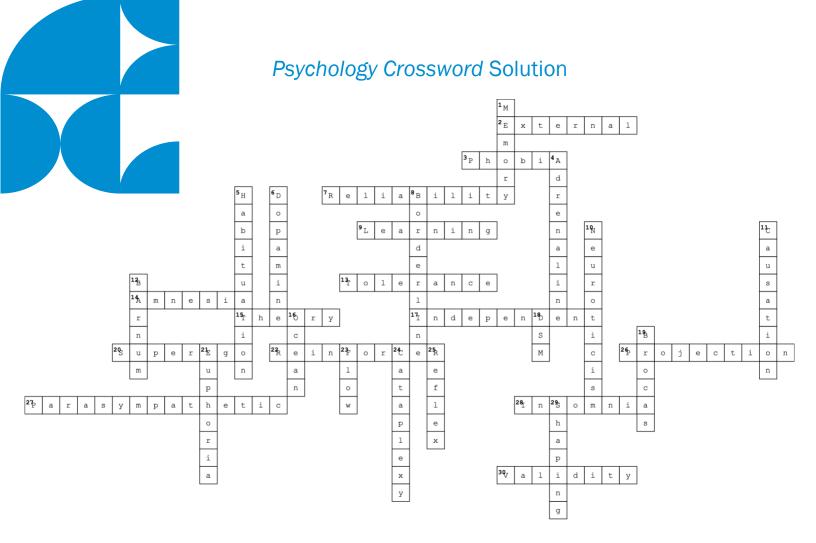
#### Across

- 2. \_\_\_\_\_ validity, aka generalizability
- 3. intense fear of an object or situation
- 7. consistency
- 9. acquisition, maintenance, and change of an organism's behavior as a result of experience
- 13. when more of a drug is required to produce the same effect
- 14. general term for memory loss
- 15. an explanation well supported by scientific studies
- 17. variable manipulated in an experiment
- 20. from the Psychoanalytic Theory, the part of the mind associated with morality
- 22. a consequence that strengthens a behavior
- 26. defense mechanisms described as the unconscious attribution of our negative qualities onto other
- 27. division of the autonomic nervous system
- 28. persistent difficulty falling or staying asleep
- 30. accuracy

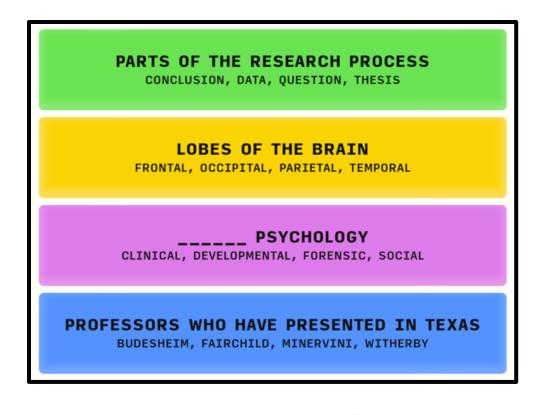
#### Down

- 1. ability to store and retrieve information over time
- 4. hormone that increases heart rate, elevates blood pressure, and boots energy
- 5. when response to a stimulus weakens with repeated stimulus exposure
- 6. neurotransmitter associated with movement, reward, attention
- 8. \_\_\_\_\_ Personality Disorder is characterized by rapidly fluctuating emotions, unstable relationships, and impulsiveness
- 10. Big Five trait associated with anxiety, anger, and self-consciousness
- 11. correlation does not equal this
- 12. PT \_\_\_\_\_ effect
- 16. common acronym used to remember the Big Five
- 18. book that classifies disorders and describes their symptoms
- 19. a part of the brain responsible for language production is
- area
- 21. intense feeling of pleasure, excitement, or happiness
- 23. state of optimal performance aka being in the zone
- 24. symptom of narcolepsy where an individual loses muscle tone
- 25. involuntary/unlearned response to a stimulus
- 29. teaching a new response by reinforcing successive approximations

[solution on next page]



### Psychology Connections Solution





### 2023 - 2024 Fun Memories and Events





#### It's a bird, it's a plane, it's a solar eclipse

Drs. Maya Khanna and Corey Guenther view the solar eclipse using special solar filters at the Physics Club Solar Eclipse Campus Viewing on April 8, 2024. In Omaha, the partial eclipse was visible from 12:40 to 3:10 p.m., with about 80% of the sun blocked by the moon at maximum eclipse at 1:55 p.m.







#### These dogs deserve a round of a-paws

Border Collie "Joker", 7, and Papillon Mix "Kazooie", 1, with their owner and trainer Shannon Alfer demonstrated operant conditioning principles in the real world in Principles of Behavior class (left). The class period was a memorable learning experience for the students, so the following semester Border Collies "Marcy", 11, and "Lavish", 1, with their owner and trainer Dominique Smith demonstrated operant conditioning in Introductory Psychology class (center and right). Check out those smiling student faces!

#### **Guest of honor**

The Department invited Dr. Craig Anderson from lowa State University to give a talk on his decadeslong research on climate change and violence at the  $4^{\rm th}$  annual Ware-Johnk Lecture series (left). After the presentation, Dr. Anderson and his wife joined the department faculty for dinner and lively conversation at Biaggi's (right).



