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The Psychology Division of the Council on Undergraduate Research provides networking opportunities, activities, and resources to assist psychology administrators, faculty members, students, practitioners, and others in advancing undergraduate research.

Chair: Karen L. Gunther (Wabash College)

Newsletter Team: Amy M. Buddie (Kennesaw State University);

Tsu-Ming Chiang (Georgia College & State University)

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### Welcome from the Chair

Greetings from the CUR Psychology Division Chair! I hope this year is getting back more to normal for all of you.

We have had an active year in the Psych Division. I hope many of you had a chance to catch our Mid-Career Mentor Awardee, Nicole Campione-Barr's, inspirational talk in March. If you missed it, the talk is posted on the CUR website – see below in the newsletter for more.

We also gave out four research awards to talented undergraduates. Read on to see synopses of what they learned from these research experiences. Watch for the fall newsletter for a call for next year's research/travel award applications.

Last summer, we held two CUR Conversations on Undergraduate Research Using Remote Techniques and Tools. Let us know if there are topics that you would like to discuss in future conversations.

We have included some teaching tips from CUR councilors. Do you have tips that you would like to share with the division on teaching, mentoring students in research, how to accomplish your own research with a heavy teaching load, or something else?

Stay well, and I wish you happy and productive mentoring of undergraduate researchers!

Karen L. Gunther CUR Psychology Division Chair Professor of Psychology Wabash College

## **Psychology Division Mid-Career Mentoring Award**

At the March CUR Conversation, Dr. Nicole Campione-Barr, Psychology Division Mid-Career Mentor Awardee, discussed her efforts to grow and diversify the field of psychological science through mentored undergraduate research programs.

Echoing a story that many of us tell, Dr. Campione-Barr shared that she had a great undergraduate research experience at the University of Missouri, and she wanted to give back when she returned after earning her Ph.D. She noted that an examination of **who** we are serving is important. Common to many undergraduate research and



honors programs is the fact that we are already serving students who are high achieving and have a degree of privilege. She worked concertedly to open things up to more students.

Nicole described different approaches including 1) growing a capstone program, 2) creating a supplemental "orientation to the psychology major" that accompanies the traditional introductory psychology course, and 3) a scholars program for first-generation and underrepresented students in their first two years.

The orientation course provides an overview of psychology, including sub-fields, distinguishing it from other disciplines, exposure to resources on campus, including clubs and the honors society, and information about graduate school. The scholars program involves a lab rotation (~5 weeks in each of 3 labs) that allows broad exposure to research. Involvement so far has resulted in students persisting in research, thus increasing the number of such students in the program years later.

She highlighted how there is a lot that we can be doing for students: *Not all students know how to find us, and we need to make them feel included right from the beginning.* She is striving to make participation reflect the diversity of their programs. Dr. Campione-Barr noted that there are still barriers to including non-traditional students in such opportunities. While she can't be everything to everyone, she is trying, and that is inspiring!

Watch the recording of her talk on CUR's YouTube page.

Jennifer Coleman

CUR Psychology Division Councilor

Professor of Psychology

Western New Mexico University



## Meet the 2021-2022 Student Funding Recipients!

The CUR Psychology Division offers a limited number of research (e.g., supplies or expenses) or presentation (travel/conference registration) awards for undergraduate students conducting original

psychological research (~\$400-500). Watch the **CUR Psychology Division website** next fall for a call for proposals. Here are this year's winners.



# GILLIAN SMOODY, GONZAGA UNIVERSITY - FAMILY SOCIAL SUPPORT DURING COVID

1. What was the nature of your project?

My project looked at the ways that the Covid-19 pandemic has affected the academic performance of college students engaging in online learning with regards to the levels of social support that they experienced.

2. What were the easiest and hardest things about the work you did?

The easiest aspect of the project was working to gather measures to test my variables and creating the survey for students to take. The hardest aspect of this project was figuring out how we wanted to follow up our first round of data collection and if there were measures we wished to include that would narrow in on our hypothesis better after looking at the results of our first wave of data collection.

#### 3. What kinds of things did you learn?

Through this project, I learned that I really enjoyed working with data, working on study design, and collaborating with people to put together an original project. This has been one of the most rewarding experiences because I was able to come up with my own hypothesis and watch over the last two years as it has developed into tangible, interpretable results.

#### 4. Did you make any discoveries along the way?

In terms of discoveries, I, of course, discovered the answer to my hypothesis -- kids who had higher levels of family support performed better academically as they were less stressed -- but I also learned that I would love to continue pursuing educational opportunities. I see graduate school, and hopefully a PhD, on the horizon as I continue to engage with research. I loved the environment at the SPSP research conference in San Francisco and would love to create more of these opportunities for myself in the future.

#### 5. How has the project helped you in your career goals?

As I mentioned before, I would love to continue to do research and work in academia, so this project has given me the experience I need to know what it is like to design a research project and see it all the way through. The mistakes I made and the lessons I have learned, as well as the feeling of accomplishment and success are things that I will carry with me through graduate school and into my future endeavors.

# HENRIK TIMGREN, YOUNG HARRIS COLLEGE - PERCEIVED EMPATHY AND DISTRACTION IN PREDICTING PAIN

#### 1. What was the nature of your project?

The nature of the project is to investigate how distraction and empathy interact with pain. This will be done by subjecting the participants to a cold-pressor task to produce a painful or uncomfortable experience. While the participants are experiencing this pain, they will engage in an empathetic, unempathetic, or neutral conversation with a confederate which will be the empathetic and



distraction aspect of the experiment. We want to see how the participants will experience the pain during this experiment to understand if distraction and empathy, either by itself or combined, have an influence on a person's perception of pain. I want to mention that we have not had a chance to conduct the main experiment yet. This semester we have focused on compiling and piloting the scripts that will be used by the confederates to make sure they are as good as possible. This took longer than anticipated, however, the main experiment will be conducted during next semester.

#### 2. What were the easiest and hardest things about the work you did?

There have been a lot of hard things with this project (and I think there are many more hard things to come). However, some of the hardest things have been to write the scripts that will be used in the confederate and participant interaction. For this we needed to understand what words and phrases people consider to be empathetic, unempathetic, and neutral. This meant a lot of work and extra surveys, but hopefully it will pay off. The easiest part of the project has probably been to work with my faculty supervisor. The relationship has been great throughout the process, and he has helped me tremendously with every step of the way. I have been able to provide my ideas and receive constructive feedback all the time which has helped a lot during the structuring of the project as a whole but especially with the scripts.

#### 3. What kinds of things did you learn?

The main new things that I have learned throughout this experience have been how to use SPSS and run statistical analysis. It has been very helpful to learn how to navigate the software, how to run the statistics, and how to interpret the results. I have also learned how the IRB process works and how I write and submit my application to the board. Surrounding my topic, I also learned that there are different aspects of empathy, cognitive and affective empathy, and I was able to apply this during our research regarding the scripts.

#### 4. Did you make any discoveries along the way?

We have not been able to conduct the main experiment yet, but that will be done next semester. However, we did have some interesting findings while producing our scripts. We found through our online survey that people rate negative and neutral phrases/comments as almost equally unempathetic on both cognitive and affective empathy. We expected there to be a difference between the neutral and negative phrases, but to see them as almost equally unempathetic was very interesting and something we will take into account when analyzing the data from our main study.

#### 5. How has the project helped you in your career goals?

The project has helped me to better understand the psychology and research regarding pain and it has also made me very interested in this topic. I am considering continuing my psychological education around the topic of pain and health psychology, so this project has really sparked and enhanced my knowledge regarding those topics. Working on this project has also made me realize how much I like doing research and has made me set on continuing to do research when I continue my academic and professional career.



# HYE MIN YOON, EMORY UNIVERSITY - PERCEPTION OF JAPANESE LEXICAL PITCH ACCENT

#### 1. What was the nature of your project?

My project is called "L2 Perception of Japanese Lexical Pitch Accent, Verbal Working Memory, and Acoustic Processing Ability in L1 Speakers of North Gyeongsang and Seoul Korean." I chose to focus on this topic because I was interested in non-native speech perception of prosodic features of language, such as intonation and stress, to explore the psycholinguistic mechanisms involved in

recognizing words. Specifically, I wanted to explore the factors that lead to individual variability in perceiving Japanese lexical pitch accents, which are word-level changes of pitch in fundamental frequency (F0) that native speakers use to distinguish words. There are three factors that previous literature has suggested to play an important role in perceiving Japanese lexical pitch accents. The first is native language background. Researchers have found first language backgrounds involving word-level tones (e.g., Mandarin Chinese) to predict pitch perception abilities, but little is known regarding how native speakers of Korean who speak dialects containing lexical pitch (e.g., North Gyeongsang) would perceive Japanese pitch accents compared to dialects that lack this feature (e.g., Seoul standard). In addition, the second and third factors are individual abilities in verbal working memory performance and acoustic processing—two domain-general skills that may lead to better non-native prosodic perception.

Having greater verbal working memory performance is known to enhance the formation of long-term phonological representations of lexical forms, and possessing greater acoustic processing abilities has been associated with being a highly pitch-sensitive listener, which may lead to better perception as well. There has been limited research in all three of these factors in non-native prosodic perception, which is where my project fits in—and with further data analysis, the findings of this study will be able to contribute to improving psycholinguistic models of speech perception and enhance foreign language education curricula.

#### 2. What were the easiest and hardest things about the work you did?

The most straightforward and easy part of my project has been bringing together the experiment to test the predictions, which includes the ABX discrimination task, a nonword recognition task, and a F0 discrimination task. As the current study is a replication of procedures with tasks that have been designed by previous researchers, my role was to take those tasks and translate them into Korean while taking the stimuli and pushing them onto an online research platform called Gorilla Experiment Builder. On the other hand, the most difficult part has been participant recruitment. As this study is an interdisciplinary project that brings together psychology with the field of linguistics, in which researchers are known to typically have much stricter standards in controlling for variation in participant background, there have been many individuals who have been interested in participating but were not able to fully meet the requirement (e.g., using the specific Korean language variety as one's lifelong dominant dialect, having spoken it from early childhood to at least the start of adulthood). While this approach made the recruitment process more strenuous and called for greater attention to detail and time, it helped to strengthen the findings, making the process challenging but simultaneously rewarding.

#### 3. What kinds of things did you learn?

Expanding beyond the general topics of this research, this project allowed me to learn how to apply one of the most imperative components of conducting empirical research: the mindset of utilizing the frame of diversity. For many decades, the field of psycholinguistics has traditionally been geared towards exploring various phenomena in western populations and languages, while also treating languages without taking dialectal variation into account. However, while consolidating the focus of this project, I learned how to apply this mindset by looking at Korean native speakers who are understudied in speech perception. Furthermore, my study diverges from the viewpoint of identifying Koreans as a monolithic entity by incorporating multiple dialects and language varieties of the Korean language, which cultivates a representation of linguistic diversity in the literature that has not been seen before. Through this process, I have been acquiring the ability to apply the mindset of diversity in research that I know I will be taking into the future.

### 4. Did you make any discoveries along the way?

An initial look at the data shows that the North Gyeongsang speakers of Korean tend to have higher scores in perceiving Japanese lexical pitch accents compared to the speakers of Seoul Korean. Connecting this with myself, as a native speaker of North Gyeongsang Korean, I grew up with the understanding that my non-standard dialect made me inferior, less educated, and less intellectual compared to native speakers of Seoul standard Korean—particularly due to the social constructs of associating non-standard language varieties with being inferior. However, through this study, I realized that the diverse linguistic experiences I had as a speaker of this non-standard variety actually put me in a more advantageous place in prosodic speech perception, which was a pleasant surprise and an important learning experience for myself.

#### 5. How has the project helped you in your career goals?

I am currently preparing to pursue an M.A. and Ph.D. following the completion of my undergraduate degree to explore applied psycholinguistics and cognitive psychology, as I am hoping to eventually become a research professor. This project has given me the opportunity to engage in scientific inquiry and methods of empirical investigation as an independent researcher with the support of a mentor professor. Going through the work of identifying a research gap of my interest and carrying out a study to submit for publication has given me insight into what being in a Ph.D. program might look like; it has also

compelled me to be able to realistically imagine myself as a lifelong researcher in academia. In addition, the topic of the present study regarding non-native speech perception and working memory is directly related to what I am hoping to explore in my research in graduate school, and it especially gives me the chance to work with a research topic that is directly connected to the research of specific faculty members in psycholinguistics whom I am looking to apply to work with for my doctoral studies. Within these endeavors, I am forever grateful for the Psychology Division of the Council on Undergraduate Research for their generous support in making this study possible. The research award has allowed me to utilize Gorilla Experiment Builder, PsychoPy software, and Pavlovia to run the experiment as well as facilitate successful participant recruitment while decreasing attrition. I presented at the CUR's National Conference on Undergraduate Research a couple of years ago with a different project, and I knew back then, too, that the CUR had a special place in my heart—and I feel that even more greatly now, with the CUR research award that let me freely explore my interests while expanding the study of psychology.

# SALMA ZAVALA, ELMHURST UNIVERSITY - STEREOTYPE THREAT VS. GRIT

#### 1. What was the nature of your project?

My project focused on the gender-math stereotype, which assumes that women are inherently "bad" at math. It is believed that gender disparities in math performance – as well as other types of underperformances – can be attributed to stereotype threat (ST), or the concern of confirming a negative stereotype about one's social group. Separate literature has shown that grit – passion and



perseverance toward long-term goals – is related to positive academic outcomes. Thus, this project investigated the effect of higher levels of grit on stereotype threat susceptibility. Women STEM majors completed scales to measure their global grit and school grit, then took a math test in a Stereotype Threat or No Stereotype Threat condition. It was predicted that those with higher grit would perform better in the Stereotype Threat condition than those with lower grit in the same condition.

#### 2. What were the easiest and hardest things about the work you did?

Little is easy when it comes to research, especially for a novice like myself. However, I found that I was well-prepared for the literature review aspect of the project: reading the existing literature and taking notes on what previous studies have done and found already. My coursework has given me the practice I needed to complete this important step in the research process.

The hardest part of this project for me was designing and compiling the materials for this study to be as effective as possible. There were many factors to think about when designing and gathering the materials, such as how students might interpret and respond to the materials. When selecting the math test, the main concerns were, "Is it too difficult or too easy? Should it be shortened or kept the same?" Details like these are important as they can affect the results, and it was often difficult to answer these questions that came up as they sometimes required pilot testing.

#### 3. What kinds of things did you learn?

I had the opportunity to experience firsthand all the work and thought that goes into creating a study. I always knew it was no simple task, but I learned just how detailed it can be. I took what I learned from my Research Methods course and applied it to this project, which helped broaden my experience with creating a study. I have also become much more knowledgeable about stereotype threat and grit, specifically how these look in students today as compared to the first studies conducted years ago.

#### 4. Did you make any discoveries along the way?

I discovered that there is a possibility of the gender-math stereotype being perceived differently today. In a previous similar study, students were asked what they thought about the idea that women are "bad" at math. Some students responded that they were not even aware of this stereotype. This was something I kept in mind as the study's design progressed; that awareness of this stereotype may be diminishing as there is a growing push for women to enter male-dominated fields.

5. How has the project helped you in your career goals?

While I am still indecisive on my exact career goals, this project has allowed me to practice and build on skills that are important not only for a research career, but in any career. Information literacy and creativity are essential skills in any career. I often picture myself working with students in the future, and my gained knowledge about stereotype threat and grit would allow me to better understand those students and find ways to help them reach their goals.

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# Teaching Tip #1 – Using TED-ED to Identify and Train Students for Research with Faculty

Students sometimes ask if they can help me with my research. I always respond to these inquiries with enthusiasm **and** an "assignment". The assignment is a **TED-Ed video lesson** that I created to teach students concepts and skills necessary in my research. I invite students to complete the TED-Ed video lesson if it interests them, and to contact me for an appointment to discuss their responses if they remain

interested. I repeat this process with a second and third TED-Ed video lesson. This approach has benefits. First, students who are motivated and interested develop relevant research skills and knowledge. Second, uninterested students can "opt out" any time without awkwardness by simply not following up with me. Third, I can respond enthusiastically to all student inquiries while also saving time in identifying and training interested research students.

Nestor Matthews
CUR Psychology Division Councilor
Professor of Psychology
Denison University

# Teaching Tip #2 – Using the K. Patricia Cross Academy to Improve Teaching

Professionally, psychology faculty need to wear many hats to have a successful career, demonstrating productivity in teaching, scholarship, and service. Teaching, however, has always had a paradoxical relationship with most of our training. While we will spend much of our careers and energy on teaching, we often receive little training to do so. In graduate school, we learn how to do research; sometimes to such a nuanced and intricate degree, only a handful of people really know what we



do (don't think so....just ask your mom to explain your research). But teaching? Pedagogy? Best practices? A study by Terrell and Warren (2013) published in the Research in Higher Education Journal documented that despite some advances in graduate training, faculty still often lack pedagogical and content delivery skills. As psychology faculty, we might feel we have come across and consumed enough learning and cognition literature to muddle our way through. However, translating research into actionable items and lesson planning is its own skillset and one area postsecondary faculty seem to have fewer vetted resources at their fingertips for, as compared with K-12 educators. Like me, have you looked longingly at all the K-12 teaching resources on the internet, sighed, knowing they would not translate well to a college classroom, and then spent too much time digging around the textbook publisher's webpage for new ideas? To fill this void, the **K. Patricia Cross Academy** has assembled videos, resources, and student exercises on learning activities appropriate for college students. Activities are broken down into those useful for live or on-line learning environments, what teaching problem it solves (i.e., low motivation, surface learning, etc.), and learning taxonomic dimensions (a plus for the assessment geeks among us). A quick look might just provide you with some fresh and innovative ways to improve your teaching techniques.

Kimberly Rapoza
CUR Psychology Division Councilor
Associate Professor of Psychology
Mercy College



## Teaching Tip #3 - On Teaching Writing

When teaching writing, one of my favorite sources is Gopen and Swan's (1990) paper *The Science of Scientific Writing* (American Scientist, 78, 550-558). They focus on reader expectations and have great suggestions for how to write to meet those expectations. Sentences should start with old information, connecting back to what has been said, giving context. Then the new information should be presented in the expected stress position, nearer the end of the sentence. From the writer's standpoint, we want to get down the new idea, and then, oh, yeah, this is how it fits

with what I've told you before. To write for the reader, these ideas have to be flipped.

Another paper that I just learned about, but plan to use with students in the future, is Twa's (2018) *Plain Language is Preferred* (PLiP) (Optometry and Vision Science, 95(7), 555-556), about the dangers of the use of abbreviations. He has a great table that explains what various abbreviations mean in multiple different disciplines, and shows the confusion that can result (e.g., WTF stands for write to file – what did you think it meant?). I am forever instructing students not to use abbreviations. Most of the time, they add to the reader's cognitive load and don't offer benefit. If the writer doesn't want to have to write it out in full every time, use find and replace at the end.

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