

College of Liberal Arts and Sciences

Graduate Student Research Symposium



September 13, 2019
1-4 p.m.
Presidents' Lounge
Connelly Center



GRADUATE LIBERAL ARTS & SCIENCES

Schedule of Presenters

All oral presentations will be in the Haverford Room
in Connelly Center

- 1:00 p.m. **Historical Interpretation of Pennhurst
Asylum: Legacies and Remnants of Eugenics
in Pennsylvania**
Katarina Andersen, History
- 1:15 p.m. **Political Education as a Response to Crisis in
Karl Mannheim’s Interwar Works**
Christiaan (Iaan) Reynolds, Philosophy
- 1:30 p.m. **The effect of elastic modulus on the
adhesive strength of geckos and gecko-
inspired synthetics in variable temperature
and humidity**
Christopher Mitchell, Biology
- 2:00 p.m. **“With Earnestness of Soul and Unity of
Purpose”: The Pennsylvania Memorial
Home, the Woman’s Relief Corps, and the
Support of Union Veterans and Their
Dependents**
Moyra Schauffler, History
- 2:15 p.m. **Re-evaluating Derrida’s Phenomenology of
the Gift: On the Missing Sessions of *Donner
– Le temps***
Humberto Gonzalez Nunez, Philosophy
- 2:30 p.m. **Monster as Actor, Woman as Role: A Case
Study in Performative Monstrosity**
Katherine Kurtz, Philosophy

Schedule of Presenters Continued

- 3:00 p.m. **Indentured Imaginaries**
Ami Sejpal, English
- 3:15 p.m. **Lumber & Labor in Williamsport, PA**
Collin Heatley, History
- 3:30 p.m. **Investigating potential genetic influences on
inter- and intra-specific variance in boldness
behavior of hybridizing chickadees**
Taylor Heuermann, Biology

Research is an essential element to the experience of graduate students in the College of Liberal Arts and Sciences at Villanova. Each year, the Office of Graduate Studies puts out a call for proposals for the Graduate Summer Research Fellowship. This abstract book represents the research projects of the recipients of the 2019 award. These projects reflect the wide variety of fascinating research being conducted by graduate students in CLAS at Villanova, ranging from Biology and Chemistry to History and Philosophy. Students have opted to present their research either with a poster or an oral presentation.

We would like to thank the Center for Research and Fellowships for collaborating with the Office of Graduate Studies for the inaugural Graduate Student Research Symposium. In addition, we offer heartfelt thanks to the faculty members who sat on the Summer Research Fellowship committee: Dr. Christine Palus, Chair; Drs. Anil Bamezai (Biology); Eduard Casillas (Chemistry); Peter Spitaler (Theology and Religious Studies); Joseph Toscano (Psychological and Brain Sciences); Lynne Hartnett (History); Markus Kreuzer (Political Science); Walter Brogan (Philosophy). Sincere appreciation goes to the faculty sponsors for each of these exciting research projects. Faculty mentorship at Villanova is what makes the graduate student experience so unique. Finally, thank you to the Dean of Graduate Studies, Dr. Emory Woodard, IV, and the Dean of the College of Liberal Arts and Sciences, Dr. Adele Lindenmeyr, for their continuing support of graduate student research.

Office of Graduate Studies, CLAS

Biology

Investigating the developmental origins of neurons that influence *Drosophila* courtship behavior

Author: Sofia Altamirano

Sponsor: Dr. Troy Shirangi

“Innate behaviors of animals are unlearned patterns of behavior that are programmed by genes. *Drosophila melanogaster* has an elaborate courtship ritual that is innate and has been studied in detail. Mutations in the *dissatisfaction* (*dsf*) gene lead to observable behavioral changes in both sexes. In this proposal, I plan to study the developmental origins of a specific subset of *dsf*-expressing neurons by performing a developmental time series. This work will explore the connection between genes, the nervous system, and innate courtship behavior.”

**poster*

Won't you be my neighbor? Distribution of nesting pairs within a hybrid-zone chickadee population

Author: Breanna Bennett, E.S. Burton, R.J. Driver, & Dr. R.L. Curry

Sponsor: Dr. Robert L. Curry

“Parapatric Black-capped Chickadees (*Poecile atricapillus*; BCCH) and Carolina Chickadees (*P. carolinensis*; CACH) hybridize, producing viable and nonsterile offspring (HYCH), in a narrow zone from Kansas to New Jersey. Our long-term field studies in southeastern Pennsylvania and genetic analyses have shown that Carolina Chickadees are expanding northward, in association with warming winter conditions, at the expense of range-contracting Black-

capped Chickadees. Here, we examine the spatial distribution within one hybrid-zone population (Hawk Mountain), as numbers of Carolina and hybrid chickadees increased between 2001 and 2018, to test whether settlement facilitated or impaired hybridization. We focused on four different years for which both geospatial and genetic data existed for breeding pairs, 2005, 2010, 2015, and 2018 (n = 48). In 2005, 60% of pairs were BCCH x BCCH, 15% were BCCH x CACH, and 15% were BCCH x HYCH. By 2010, pairs were 25% BCCH x HYCH, 25% BCCH x CACH, and 25% CACH x HYCH, with other pairs mixed in. In 2015, 35% of pairs were HYCH x HYCH, with small percentages of many other pair combinations mixed in, and by 2018 HYCH x HYCH pairs increased to 59% of all pairs. Analysis in progress examined whether females or males of a given genotype create genetic “neighborhoods”, i.e. geospatial clustering of certain same-genotype individuals. Available evidence suggests that Carolina and hybrid immigrants settled randomly within the Hawk Mountain population, in a pattern that neither promoted nor impeded hybridization.”

**poster*

Investigating potential genetic influences on inter- and intra-specific variance in boldness behavior of hybridizing chickadees

Author: Taylor Heuermann

Sponsor: Dr. Robert L. Curry

“Studying variation within and underlying mechanisms of personality (behavior that is consistent within but variable among individuals) can provide insight to the methods by which animal populations are able to respond and adapt to dynamic environments. I investigated variation in boldness

behavior within and between populations of hybridizing Black-capped and Carolina chickadees. I hypothesized that (1) populations of pure parental species differ from one another in boldness response, and hybrid populations display behavior intermediate between the pure populations; and (2) variation in the personality gene dopamine receptor D4 (*DRD4*) is correlated to variation in boldness behavior. To measure boldness response, I used a motorized woodpecker decoy as a simulated predation threat at active nests. Most assays elicited a pair response, though video recordings provided individual-level behavioral measures. Initial results indicate that Black-capped and Carolina chickadees differ primarily in vocal response, and that hybrids are intermediate. Additionally, a *DRD4* polymorphism exists within these chickadee populations, and analysis to determine whether that genetic variation correlates with behavioral variation is underway.”

**oral presentation*

The effect of elastic modulus on the adhesive strength of geckos and gecko-inspired synthetics in variable temperature and humidity

Author: Christopher Mitchell

Sponsor: Dr. Alyssa Y. Stark

“The gecko adhesive system has been mimicked by material scientists and engineers for several years due to its dry, reversible adhesive mechanics. Although these gecko-inspired synthetic adhesives have shown to behave similarly to geckos, there are still performance discrepancies in environments of variable temperature and humidity. For example, geckos retain adhesion in environments of high humidity and low temperature, while synthetics do not. Using a comparative study between live geckos and gecko-

inspired synthetics, we analyzed the role elastic modulus (material softness/stiffness) plays in determining adhesion for both the synthetic and natural system in variable temperature and humidity.”

**oral presentation*

Irruptive Black-Capped Chickadees integrate into Carolina Chickadee social groups

Author: Michael Rowley

Sponsor: Dr. Robert L. Curry

“Sudden changes to which species are present in a community may drastically impact how individuals within that community interact with one another. During ‘irruption’ years, Black-capped Chickadees (BCCH) penetrate the range of Carolina Chickadees (CACH), creating a sudden disruption in the resident group structure. We hypothesized that irruptive BCCH would form groups separate from resident CACH, viewing each other as unfamiliar competitors. We compared social interaction data collected from two seasons (irruption and non-irruption), finding that BCCH readily integrate into CACH social groups. This indicates that the two species may not discern between species when forming social groups.”

**poster*

Chemistry

Total Synthesis of Desisopropylhelminthosporol

Author: Emily Laughlin

Sponsor: Dr. Eduard Casillas

“An efficient total synthesis has been proposed to prepare the novel helminthosporol analog, desisopropylhelminthosporol. Helminthosporols inhibit the **enzyme** acyl-CoA cholesterol O-acyltransferase (ACAT), to alter the absorption levels of cholesterol in the blood, which reduces the chance of having heart related diseases. A goal is to determine the structure-activity relationship of the molecule for optimum inhibition, with desisopropylhelminthosporol representing one structurally minimized analog. Key reactions in the total synthesis are the Michael-induced ring closing, divinylcyclopropane rearrangement, and the silyl-directed Nazarov cyclization.”

**poster*

Exploring Enzymes Acquired through Horizontal Dene Transfer in Trypanosomes: Two Haloacid Dehalogenases

Author: Lauren Lucia, Alessandra Vicente, Ashley Coleman, & Dr. Jennifer Palenchar

Sponsor: Dr. Jennifer Palenchar

“*Trypanosoma brucei* is a eukaryotic parasite transmitted by the tsetse fly and causes Human African trypanosomiasis. *T. brucei* has acquired the enzyme haloacid dehalogenase (HAD) through horizontal gene transfer from bacteria. Broadly, our laboratory is interested in characterizing

enzymes in the parasite that have been acquired through horizontal gene transfer. There are two annotated, putative haloacid dehalogenases, *TbHAD32* and *TbHAD35*, that are each essential in a part of the trypanosome life cycle (Alsford et. al., 2011, *Genome Research*, 21: 915-924) and share sequence similarity with bacterial sources of the enzyme. Based on bioinformatic analyses, we hypothesize that *TbHAD32* and *TbHAD35* will act as HAD phosphatases. *TbHAD32* was overexpressed, purified, and preliminarily substrate screening carried out, confirming that the enzyme is a phosphatase. *TbHAD35* was cloned and expression and purification is underway.”

**poster*

Synthesis of (-)-Diplopyrone Analogs & Click Chemistry

Author: Jack Roireau

Sponsor: Dr. Robert Giuliano

“A carbohydrate-based synthesis of a novel alkyne pyranopyran from a commercially available derivative of D-galactose has been completed, with forays into generating novel triazole analogs utilizing highly efficient, and low byproduct producing, click chemistry. Work has been done to both increase the scale of prepared alkyne pyranopyran, and in improving the reaction conditions in the early steps of the synthesis. Additional work has focused on attempting to generate a novel tetrazole analog from a previously synthesized nitrile pyranopyran. The phytotoxic and antibacterial properties of these novel materials will be tested in collaboration with the Natural Products Utilization Research Unit of the USDA. Furthermore, progress has started in the generation of an additional analog to help

elucidate the mechanism of action regarding the antibiotic activity of these molecules.”

**poster*

English

Indentured Imaginaries

Author: Avni Sejpal

Sponsor: Dr. Heather Hicks

“Indentured Imaginaries: Global Migration, Worldmaking, and Postcolonial Literature examines neglected colonial narratives and bureaucratic archives of indenture at the British Library. It puts historical records into conversation with postcolonial literary narratives to produce an account of nineteenth-century globalization. Little attention has been paid to the ways in which dispossessed communities engaged with transnationalism. This project corrects that oversight by studying globalization from *below*. It shows that impoverished colonial subjects, forgotten by history, did not merely *experience* the world at large, they actively *produced* it. Finally, it demonstrates that this transnationalism necessarily transforms contemporary notions of both globalization and world literature.”

**oral presentation*

Environmental Science

The Impact of Point and Non-Point Sources of Contamination on the Biogeochemistry of a Rural to Urban Watershed

Author: Nicole Marks

Sponsor: Dr. Steven T. Goldsmith

“Understanding drivers of freshwater contamination is essential for maintaining ecosystem functioning and preserving water supply. Although water quality studies have focused on contaminate delivery in areas downstream of major urban centers and agricultural areas, the associated flow pathways are poorly constrained. Furthermore, there are a lack of studies evaluating water quality in systems that traverse multiple land use uses, such as a rural to urban gradient, where both point and non-point sources can have an impact on water quality. This study examines whether land-use practices or point sources (i.e. wastewater treatment plants) have a larger impact on streamwater solutes and suspended sediments in a mixed-use watershed. The study also evaluates the effectiveness of riparian buffer width on contaminant loading. Results of this study are of immediate relevance to local and state regulatory agencies seeking to establish more effective water quality regulations and land management strategies.”

**poster*

Utilizing the Soil and Water Assessment Tool (SWAT) to Model Land-Based Sources of Pollution and their Contribution to the Incidence of Coral Disease in Kaneohe Bay, Hawaii

Author: Michael McCullough

Sponsor: Dr. Lisa Rodrigues

“Coral diseases are a prominent cause of mortality on reefs. Previous studies have recognized sediment and nutrient pollution as factors that increase rates of disease. However, they often used experimental conditions in closed-chambers to assess the impacts of stressors on coral disease, while field conditions have been less studied. Using a novel geospatial approach, I will model land-based sedimentation and nutrient pollution and compare the model output to the spatial incidence of coral disease in Kaneohe Bay, Oahu, Hawaii. This will assist scientists and reef managers in identifying which areas of the reef are more vulnerable to coral disease.”

**poster*

A Temporal Comparison of Trophic Physiology and Tissue Heavy Metal Accumulation in *Astrangia poculata*

Author: Wolfgang Trumbauer

Sponsor: Dr. Lisa Rodrigues

“Tropical coral species are threatened by climate change and human activity; one conservation approach is to study related, yet common species. *Astrangia poculata* is a temperate coral that can improve our understanding of coral physiology because it lives with and without symbiotic algae;

a situation parallel to coral bleaching that affects the tropics. However, the costs and benefits of these life strategies are not well understood. I propose to study *A. poculata*'s nutrient acquisition, lipid storage, and heavy metal uptake to fill literature gaps so future studies may use *A. poculata* as a model for conservation studies of threatened corals."

**poster*

History

Historical Interpretation of Pennhurst Asylum: Legacies and Remnants of Eugenics in Pennsylvania

Author: Katarina Andersen

Sponsor: Dr. Whitney Martinko

"Throughout the 19th and 20th centuries, the eugenics movement penetrated popular culture and was a critical component to the racial categorization of society and the invention of disability, leading to the exploitation and discrimination of people with disabilities in the United States. Pennsylvania was a pioneer in eugenic rhetoric, pushing ahead of most states to rally around ideals of segregation, leading the United States to move towards mass institutionalization and start the trend of legalized forced sterilization. Thurgood Marshall equated the "virulence and bigotry" of segregation and degradation via state hospitals to "the worst features of Jim Crow." [1] Since the 1987 closing of Pennhurst School and Hospital, it has been privatized and transformed into a highly criticized "haunted" attraction. Unfortunately, the haunted asylum events and historic tours at Pennhurst are the primary

avenues for wider publics to interact with historical interpretation of mass institutionalization in the United States. This project seeks to elucidate how historical interpretation of Pennhurst and other famous asylums constructs knowledge surrounding the history and legacy of mass institutionalization, eugenics, the disability rights movement, and the larger struggle for equal rights in America.”

[1] Dennis Downey, “Pennhurst State School and Hospital,” The Greater Encyclopedia of Philadelphia, last modified 2013, <https://philadelphiaencyclopedia.org/archive/pennhurst-state-school-and-hospital/>.

**oral presentation*

Lumber & Labor in Williamsport, PA

Author: Collin Heatley

Sponsor: Dr. Paul Rosier

“This research project will focus on the relationship between land use practices and the division of labor in the lumber industry of Williamsport, Pennsylvania, c. 1845-1900. I will investigate how the creation of the Susquehanna Boom, a series of cribs, and the practice of clear-cutting forests facilitated a vast stratification of wealth between labor and sawmill owners, which culminated in the general strike known as the ‘Sawdust War’ in 1872. Ultimately, this research project will demonstrate how these land use policies and the resulting economic disparity were instrumental in both the growth and decline of the Williamsport lumber industry.”

**oral presentation*

“With Earnestness of Soul and Unity of Purpose”: The Pennsylvania Memorial Home, the Woman’s Relief Corps, and the Support of Union Veterans and Their Dependents

Author: Moyra Schaufler

Sponsor: Dr. Judith Giesberg

“The Pennsylvania Memorial Home (PMH), a facility for Union veterans, their wives, widows, and orphans, run by the Woman’s Relief Corps (WRC), is a largely unknown piece of Civil War veteran history. Although the PMH was important to the national WRC, it was the jewel of the Department of Pennsylvania. Through the analysis of newspapers, WRC publications, and census data, this project examines how the women of the Pennsylvania WRC both defied and adhered to late-nineteenth century gender conventions, illustrates the PMH’s centrality to the state organization, and illuminates an uncommon form of welfare for Union veterans and their families.”

**oral presentation*

Philosophy

Re-evaluating Derrida's Phenomenology of the Gift: On the Missing Sessions of *Donner – Le temps*

Author: Humberto Gonzalez Nunez

Sponsor: Dr. Walter Brogan

“In this brief presentation, I hope to elaborate on the archival research that I conducted at the Derrida Archives, which are housed at the Institut Mémoire de l'édition contemporaine (IMEC) in Caen, France. My original project for the Summer Research Fellowship was to conduct research into the relationship between Derrida and Heidegger on the notion of the event, which is the main philosophical concept I am dealing with in my dissertation. While on site, I decided to follow an important intuition with regard to one of Derrida's seminal texts, *Given Time* [in French: *Donner – Le temps*], originally published in 1991 and then translated into English in 1992. This text, which was the transcription of the first five sessions of a 1977-78 seminar, made allusion to a postponed discussion of Heidegger's work at further length that, if we search the published versions of this text, are entirely missing. While at the archives, I discovered that there are actually 13 sessions to *Donner – Le temps*. The discovery of these missing sessions is quite extraordinary since only the IMEC archives clearly state that there are 13 sessions in their own personal database while the databases of both the University of California Irvine archives (which also house Derrida's archival materials) as well as that of the Derrida Translation Seminar Group (which is the main group responsible for translating Derrida's work into English) both erroneously state that there are only 5 sessions to this seminar. In my brief presentation, I hope to indicate the importance of this

archival discovery and the way in which it alters the reception of Derrida's work within the context of contemporary French phenomenology, in particular, his high profile debate with Jean-Luc Marion. In other words, the material found in these missing sessions provides us with the material for re-evaluating the contemporary discussions of the phenomenology of the gift.”

**oral presentation*

Monster as Actor, Woman as Role: A Case Study in Performative Monstrosity

Author: Katherine Kurtz

Sponsor: Dr. John Carvalho

“My project aims to show how monstrosity operates as a normative social construct used to create and sustain bias against marginalized identities, while nevertheless holding the potential to disrupt such rigid and oppressive modes of perceiving others. This completed chapter examines the *performative* nature of the monstrous as an embodied social category by analyzing monstrosity alongside the example of women and cisgender femininity. Whereas existent literature on the “monstrous-feminine” focuses on abjection of the female body—tying women’s monstrosity to depictions of menstruation, pregnancy, motherhood, and castration—my work supplements this more biological perspective of sexual difference with a historical account that can accommodate gender performativity and role-playing. Connecting the monster-actor and femininity in this chapter, I utilize a feminist theoretical framework to explore the notion of *strategic performance* within the work of Luce Irigaray, Gilles Deleuze, Friedrich Nietzsche, and Cassavetes’s 1977 film *Opening Night*. Although monstrous role-playing is constricting insofar as it limits the actor to the performance

of a(n ab)normalized, given role, it can also free the actor to enact subversive possibilities in the name of this role and available to her only in this role.”

**oral presentation*

Political Education as a Response to Crisis in Karl Mannheim’s Interwar Works

Author: Christiaan (Iaan) Reynolds

Sponsor: Dr. Yannik Thiem

“I am applying for the Graduate Summer Research Fellowship to support the composition of my dissertation project’s third chapter on Karl Mannheim’s theory of ideology. In this chapter, I argue that Mannheim’s conception of ideology critique as political education warrants serious attention today, as it sheds new light on our contemporary political situation. This award would assist me as I research, draft and edit the chapter, and prepare parts of it for publication in a high-profile academic journal. This Fellowship would thus be tremendously helpful as I work toward the timely completion of my dissertation during Academic Year 2019-2020.”

**oral presentation*

Psychological and Brain Sciences

Motion Discrimination in Archerfish

Author: Bridget Austin

Sponsor: Dr. Michael Brown

“The proposed experiment aims to investigate motion discrimination in archerfish (*Toxotes spp*). Unique foraging abilities allow archerfish to shoot at targets above the water surface. This experiment would manipulate motion to determine whether it is a potential trigger for shooting. The methodology would include presenting mobile and stationary stimuli on a LCD screen suspended above the archerfish tank and measuring fish location and shooting. Data collected from this study will advance archerfish cognition research and comparative cognition as a whole. This research will provide an opportunity to hone the methodology that will be necessary to complete my master’s thesis.”

**poster*

Intranasal Neuropeptide Y as a Prophylactic Treatment for Acute Stress

Author: Brittany Baugher

Sponsor: Dr. Benjamin Sachs

“Stress is strongly associated with various mental disorders and past research has identified factors that may play a role in increasing resilience to stress. Recent work suggests that neuropeptide Y (NPY) is one of these key mediators, such

that higher levels of NPY are associated with better stress response. The current study used NPY as a prophylactic treatment to reduce anxiety-like behavior in mice following exposure to acute stress. We observed a three-way interaction between stress exposure, treatment group, and sex. Contradicting previous findings, we found an increase in anxiety-like behavior in mice treated with NPY before exposure to stress.”

**poster*

From Parents to Children: Examining the Relationship Between Parenting Stress, Warmth, and Child Self-Regulation

Author: Alexandra R. Buccelli, Jake A. Leonard, & Dr. Janette E. Herbers

Sponsor: Dr. Janette E. Herbers

“Families experiencing homelessness disproportionately face economic, health, psychological, and social risk factors (Perlman et al., 2012). With a lack of stability and relatively few resources, parents are still tasked with the challenge of providing a reliable, nurturing environment for their children in high-risk situations. Therefore, parents experiencing homelessness often demonstrate heightened levels of stress and distress (Smith et al., 2009). These high levels of stress can then impact the parent-child relationship, threatening a known protective factor which can influence emotional and behavioral outcomes within children (Gewirtz et al., 2009; Utržan et al., 2017).

Specifically, positive parenting acts as a resource which enables children to build and foster protective factors, even

in the high-risk context of homelessness (Smith et al., 2015). Parenting characterized as warm, responsive, and structured has been associated with better child self-regulation, executive functioning, as well as diminished behavioral and emotional problems (Herbers et al., 2014). Given that parents who are homeless experience high stress and that the intergenerational transmission of self-regulation have been well evidenced (Bridgett et al., 2015), it is important to further examine whether a parent's self-regulation skills can be passed on to their children through parenting practices. The current study attempts to address whether positive parenting, despite the high stress associated with staying in emergency housing, can moderate the impact of parenting stress on children's self-regulation skills. We hypothesize that when parents experience high parenting stress, but demonstrate regulation by maintaining high expressed warmth, their children will also show better self-regulation.

Data were collected from 50 caregivers with at least one child aged 12 months to five years old. Participants were recruited and interviewed while staying in one of five family emergency shelters in Philadelphia. Parenting stress was measured with the Parenting Stress Index 4th Edition Short Form (PSI-4-SF; Abidin, 2012), focusing on the Parent Child Dysfunctional Interaction (PCDI) subscale. Parents responded to the Five Minute Speech Sample (FMSS), describing their children with audio-recordings later coded for warmth and negativity (reversed). Child self-regulation was measured using the self-regulation subscale in both the Devereux Early Childhood Assessments (DECA-T and DECA-P2; LeBuffe & Naglieri, 1999).

We conducted a linear regression predicting child self-regulation based on child age, child gender, parenting stress, and parenting warmth. Results revealed scores on the parenting stress measure (PCDI) were negatively associated with child self-regulation ($\beta = -.628, p = .003$). Additionally, there was a trend towards significance in the interaction between parenting stress and warmth predicting child self-regulation skills ($\beta = .369, p = .067$), suggesting that parents with high stress and high expressed warmth did tend to have children with better self-regulation skills than their low warmth counterparts.

Results indicate the importance of further investigation into the relationship between parenting stress, warmth, and child self-regulation is needed to better understand the mechanisms by which resilience in young children experiencing homelessness can be bolstered. Implications and directions for future research will be discussed.”

**poster*

Predictive effects of visual speaking rate information

Author: Andrea Ruggiero

Sponsor: Dr. Joseph Toscano

“Human listeners are remarkably accurate at distinguishing speech sounds despite widespread context variability. For example, the sound at the end of “mob/mop” can be categorized as “b” or “p” depending on the speaking rate of the talker. I will examine whether arbitrary context cues also facilitate speech recognition, testing the limits of the system’s flexibility in dealing with context variability.

Listeners will hear sentences ending in words that are influenced by speaking rate, accompanied by a modulating circle providing a visual indicator of rate. I predict that participants will be more accurate when this visual cue is present.”

**poster*



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