The 2021 University of Chicago Undergraduate Research Symposium: Online Proceedings

Virtual Poster Session 2:

Humanities Collegiate Division
The 2021 University of Chicago Undergraduate Research Symposium: Abstract

Court Theatre in 2020: Preserving an Unprecedented Year in the Life of an American Theatre
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Mentor(s): Ms. Nora Titone, Court Theatre; Dr. Eric Colleary, Harry Ransom Center

On March 12, 2020, the cast and crew of Court Theatre’s production of *The Lady from the Sea* gathered for the last time to discuss closing in response to the COVID-19 pandemic hours before their first preview. As theatres shut down across the city that day, one question arose: how would the pandemic impact American theatre as we know it? In response, Dr. Eric Colleary of the Harry Ransom Center at UT Austin created the Theatre 2020 project, which aims to preserve a digital archival record of the impacts of the events of 2020 on theatres nationwide. In my research, a subcomponent of this project, I investigate one case study: Court Theatre. Court’s simultaneous connections with the University of Chicago, the South Side, and the broader Chicago theatrical community place it at a unique intersection of perspectives and communities unlike that inhabited by any other American theatre, making its response to both the pandemic and the Black Lives Matter movement particularly significant. By collecting various documentation of the past year, including but not limited to production documents, online performance recordings, photographs, interviews with staff, antiracism vision documents, podcast recordings, and more, I explore an unprecedented year in the life of an American theatre. Court’s work in both continuing to make art in a pandemic that left thousands of theatre workers unemployed and actively changing its practices to become an antiracist institution reveal a creative, intentional response to the multifaceted pressures of a year unlike any other in the history of American theatre.
Spatial Cases and River Systems: an Initial Study into the Semantics of Space within Even
Jonathan WuWong, 3rd-Year, Linguistics and Visual Arts
Mentor(s): Prof. Lenore Grenoble, Linguistics

Even is a Tungusic Language spoken by a minority ethnic group within Russia known as the Even, Oroch or Lamut. With no more than 4,500 speakers, the documentation and understanding of this language is an invaluable pursuit. Like other Tungusic languages, Even has a complex case system with a theorized 13 cases. Of these cases, eight are semantic cases that express a variety of temporal and spatial relations. Additionally, Even has been attested to have a river-based orientation system which mirrors similar systems found in other Tungusic languages such as Evenki. The purpose of this initial study is twofold. First, I wish to assess the use of these semantic cases. Using recent data gathered by Professor Lenore Grenoble in 2019 and previous work done on Even, I attempt to determine the contemporary uses of these cases to describe space. Second, I evaluate existing experimental techniques and literature on spatial orientation systems with particular attention on work dedicated to describing river-based systems. After which I propose experimental methods for future work on Even in regard to this area. While just an initial study of these relationships, I hope that it can help draw implications for how space is created within the Even language and possible routes for future inquiry.
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The Impact of Speech Production on Cue Weighting in Speech Perception
Nicholas Aoki, 4th-Year, Linguistics, Statistics
Henry Mackall, 3rd-Year, Linguistics & Anthropology, Cinema and Media Studies
Mentor(s): Prof. Alan C. L. Yu, Linguistics, Phonology Laboratory

Language is a central component of the human experience. When we communicate, listeners use acoustic cues to categorize sounds into discrete phonemes. For example, duration and formant frequency are two cues used to distinguish the vowel /i/ in “sleep” and the vowel /I/ in “slip”. Individual variation has been demonstrated in cue weighting such that some speakers may prioritize one cue more heavily than other speakers, yet relatively little is known about the mechanisms underlying these differences. We hypothesize that speech production impacts perceptual cue weighting. Two phoneme contrasts are studied in this project: /b/ and /p/ as in “back” and “pack”. The cues distinguishing /b/ and /p/ are voice onset time and fundamental frequency. Perceptual cue weighting between these cues was measured via an eye tracking paradigm in which subjects heard a word containing either /b/ or /p/ and clicked on the picture corresponding to the word among a group of pictures. By tracking their eye movement and timing where their eyes move to as they hear the cues in the acoustic signal, we can study their relative weighting of cues. Production data were obtained when subjects read sentences to the pace of a metronome and stories containing words with the relevant contrasts. The data collection process ended in March 2020. The production data are currently being processed via forced-alignment in WebMAUS and manual alignment in Praat. Mathematical values for the degree of cue weighting and values for the cue variation in the production data will be calculated in R. If values from the perception data are correlated with values from the production data, it will indicate that individual variation in speech perception impacts individual variation in cue weighting.
LGBTQ+ Histories and Presentation Possibilities
Nicholas Peno, 4th-Year, English Language and Literature, Biological Sciences
Mentor: Prof. Ellen MacKay, English Language and Literature

Incredible amounts of queer ephemera, histories, and memories have found permanent residence in archives like the Queer Zine Archive Project, among others. There are also instances and representations of queer experience that are nested in other archives that do not have specifically queer intention, that suffer from how the traditional archival method of passive accumulation tends to reproduce knowledge-power structures, thus ostracizing marginalized stories from a place of prominence in the archive. These queer items, in various archives, might be inadequately represented by the metadata framework or dulled by its presentation. This thesis project aims to analyze this problem and its attempted solutions and suggest an additional way to present queer material from the archive. At the heart of this suggestion is Twine, created in 2009 by Chris Klimas as a software for creating works of interactive fiction. Twine has since been used to create countless works that prove its ability to highlight temporality, expose the implications of power, and emphasize the experience of navigation and exploration that is emblematic of archival excursion. As a platform that gives important space and tools to queer writers and game designers, it can give a new voice to the items that reside in archives, by animating, energizing, and connecting documents and writing that usually reside statically and boxed-in within the archives themselves. Aspects of Twine will benefit the material it encounters, without disregarding the archival process, and speak to a specific mode of presenting archival material. This project will be part praxis: I will present archives and their materials through the medium of Twine in order to lift up what has been flattened by the archival process and give attention to the queer lives these objects once lived.
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**Conservation Science: Technical Imaging of *Socrates Tearing Away Alcibiades* by Jean-Baptiste Regnault**

Talia Ratnavale 4th-Year, Anthropology & Chemistry, Art History
Mentor(s): Dr. Issa Lampe, Smart Museum of Art Feitler Center; Dr. Lisa Zaher, School of the Art Institute of Chicago

I am conducting a technical art historical study of *Socrates Tearing Away Alcibiades* by Jean Baptiste Regnault. Regnault’s work can be situated in the context of the French Neoclassical art historical period. A visual of the initial underdrawing of *Socrates Tearing Away Alcibiades* may reveal crucial choices made by the artist. In order to accomplish this goal, I will conduct IR photography, which makes use of longer wavelengths of light which can ‘pass’ through the surface of a painting to enable aspects of the underdrawing to be reflected back into a specially modified camera. The camera lens will be covered with a series of external filters so that noise (color) from the visible spectrum is gradually reduced. Generating such images would help explicate the nuances of Neoclassical perspective(s) missed by historians who attempt to paint the period with all too broad of a stroke. Furthermore, this research may help explain subtle differences between this painting and its sister of the same name at the Louvre.
Gestural Lexicography in Digital Media: Analyzing Shared Gestural Vocabulary Within and Across Demographics

Wren McMillan, 2nd-Year, English Language and Literature
Mentor(s): Prof. Jason Riggle, Linguistics, Chicago Language Modeling Lab

Our project aims to establish the existence of a lexicon of meaningful gestures whose interpretation is stable across individuals and to assess the demographic factors that influence familiarity with various gestures. Much research has been done on the use of co-speech gestures. Unlike the type of movements that are usually thought of as gesticulation (which includes gestures of emphasis), the gestures that we are studying have specific and fairly arbitrary codified meanings. Gestures of this kind are referred to in gesture research as “emblems”. In order to study these gestures, we are building a 1,000 unit catalog of animated GIFs (short, looping, silent video clips), which currently contains 576 files. Each of these GIFs contains an emblematic gesture coding distinct linguistic information. Electronic, text-based communication platforms, such as iMessage, Facebook Messenger, and Slack, allow the use of these GIFs, and the fact that such clips are widely available gives us preliminary validation that the gestures contained within them communicate consistently interpretable meanings. Our project focuses on the creation and dissemination of electronic multiple-choice surveys using SurveyMonkey and Mechanical Turk in order to identify gestures with consistently shared interpretations. Our anonymous surveys are accompanied by short, optional demographic questionnaires. By collecting large amounts of survey data, we will be able to identify which social groups share meanings for certain gestures and identify a subset of gestures that make up a broadly shared gestural lexicon.