# **JON BURNSKY**

## **EDUCATION**

## University of Massachusetts, Amherst

Doctor of Philosophy (2022)

Psychological and Brain Sciences Cognition and Cognitive Neuroscience

Advisor: Dr. Adrian Staub

University of Massachusetts, Amherst

*Master of Science (2021)* 

Psychological and Brain Sciences

**University of Maryland, College Park**Bachelor of Arts (2016)

Government and Politics; Minor: Linguistics

#### RESEARCH INTERESTS

Sentence Processing, Thematic Role Processing, Lexical Processing, Prediction, Coreference and Pronoun Processing, Natural Language Processing, Data Science

## **PUBLICATIONS**

- 1. Burnsky, J., Kretzschmar, F., Mayer, E., & Staub, A. (2022). The influence of predictability, visual contrast, and preview validity on eye movements and N400 amplitude: coregistration evidence that the N400 reflects late processes. *Language, Cognition and Neuroscience*, 1-22.
- 2. Burnsky, J. & Staub, A. Sentence Completion Tasks Reveal Thematic Uncertainty. (*in prep*)

## **PRESENTATIONS**

- 1. **Short Talk:** Burnsky, J. & Staub, A. (2022, March) Clozing in on Predictions: Cloze Responses Reflect Various Underlying Processes. *The 35th Annual Conference on Human Sentence Processing (HSP 35)*. Santa Cruz, CA.
- 2. **Short Talk:** Burnsky, J., Keshev, M., Asatryan, M., Hlachova, B., Johnson, K. & Dillon, B. (2022, March) Look Away! An Object is Coming. *The 35th Annual Conference on Human Sentence Processing (HSP 35)*. Santa Cruz, CA.
- 3. **Invited Talk:** Burnsky, J. & Dillon, B. (2022, February) Grammatical Constraints on Reference. *Workshop on Jabberwocky Words in Linguistics*. Bucharest, Romania.
- 4. **Short Talk:** Burnsky, J., Kretzschmar, F., Mayer, E., Sanders, L. & Staub, A. (2021, March) Dissociating Effects of Predictability, Preview and Visual Contrast on Eye Movements and ERPs. *The 34th Annual CUNY Conference on Human Sentence Processing (CUNY 34)*. Philadelphia, PA.

- 5. **Poster:** Burnsky, J. & Staub, A. (2020, March) Thematic Role Assignment Difficulty Revealed by a Forced Choice Task. *The 33rd Annual CUNY Conference on Human Sentence Processing (CUNY 33)*. Amherst, MA.
- 6. **Talk:** Burnsky, J. & Staub, A. (2019, June). Completion Tasks Reveal Misinterpretation of Noncanonical Sentences. *Psycholinguistics in Iceland Parsing and Prediction*, Reykjavík.
- 7. **Poster:** Burnsky, J. & Staub, A. (2019, March) Cloze Completions Reveal Misinterpretation of Noncanonical Sentences. *The 32nd Annual CUNY Conference on Human Sentence Processing (CUNY 32)*. Boulder, CO.
- 8. **Talk:** Burnsky, J., Darley, E., Muller, H., Buffinton, J., & Phillips, C. (2017, March) Interpreting Negation in Incomplete Propositions. *The 30th Annual CUNY Conference on Human Sentence Processing (CUNY 30)*. Cambridge, MA.

#### **AWARDS**

• UMass Amherst Graduate School Predissertation Research Grant (May 2021)

## TEACHING EXPERIENCE

- Fall 2020: Creator of and instructor for CNS191, an original introductory undergraduate computational psycholinguistics seminar for first year students.
- Spring 2021: TA for PSYCH315, Cognitive Psychology & PSYCH494, Professional Development (both classes virtual)
- Spring 2020: TA for PSYCH641, Statistical Inferences in Psychology II & PSYCH318, Undergraduate Psycholinguistics (both classes virtual from March onward)
- Spring 2019: TA for PSYCH241, Research Methods
- Fall 2018: TA for PSYCH241, Research Methods
- Fall 2015: TA for GVPT390, Game Theory

## WORK EXPERIENCE

- Language Engineer II for Amazon Web Services (AWS) Transcribe, August 2022-present
  - Creating workflows for annotation tasks that create training and evaluation datasets for conversational AI models (fine tuned LLMs)
  - o Overseeing quality assurance, and delivery of language annotation data
  - Researching efficient data sampling and model training techniques
  - o Evaluating model output for ethical AI considerations
- Research Assistant funded by NSF grant ("Disjoint reference in real-time comprehension: Computational and cross-linguistic perspectives") to Dr. Brian Dillon, Fall 2021, Spring 2022, Amherst, MA

- Research Assistant funded by NSF grant ("Effects of lexical predictability on parafoveal and foveal processing in reading") to Dr. Adrian Staub, Fall 2017, Spring 2018, Fall 2020, Amherst, MA
- Linguist Intern for Google, June 2020-August 2020, Mountain View, CA
- Data Engineer Intern for Amazon Web Services (AWS), June 2019-August 2019, Boston, MA
- Research Assistance for UMD Department of Linguistics, August 2016-August 2017, College Park, MD
- Lab Manager for Cognitive Neuroscience of Language Lab, June 2016-August 2016, College Park, MD

#### PROFESSIONAL EXPERIENCE

- Lead student organizer for 33rd CUNY Sentence Processing Conference 2020 at UMass, Amherst (turned virtual conference due to COVID-19), September 2019-March 2020
- Student consultant for Psychonomics Society Carbon Neutrality Task Force (March 2020
  September 2020)
- Reviewer for Applied Psycholinguistics

## TECHNICAL AND LANGUAGE SKILLS

- Proficient in collecting behavioral data on Amazon Mechanical Turk, designing webbased experiments using IBEX, eye tracking while reading, visual world and EEG data in the lab.
- Proficient in R and python
- Experience with large language models using transformers and pytorch
- Later Microsoft Office Suite and Google Suite
- Native fluency in American English
- Beginner proficiency in Italian