Language and Cognition Lab

Tom Bever (Director): tgb@email.arizona.edu

University of Arizona

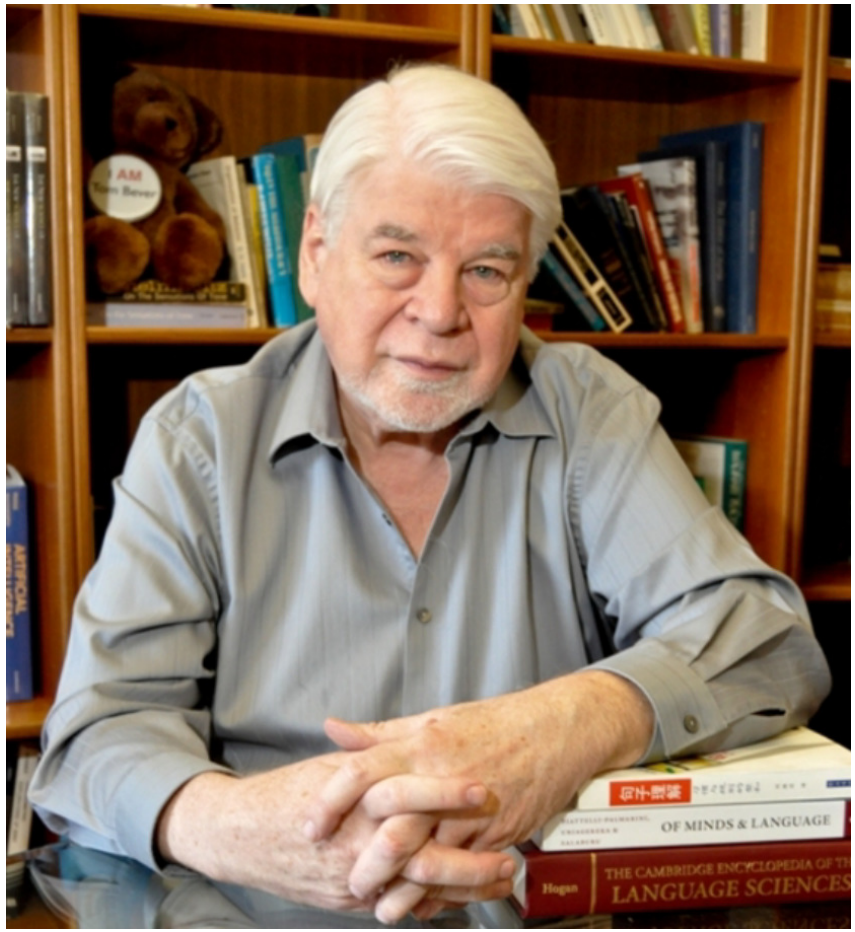
Website: https://coglanglab.github.io

What We Study

- General focus: language as a tool to understand **how the mind/brain works.**
- Topics include:
  - **Neurology** of language: Cerebral **asymmetries**, **Genetic** variation in language behavior and brain organization. **Comprehension** of English, Chinese, Arabic and Japanese; First and second **language acquisition**, Language **dysfunctions** in aphasia, schizophrenia and Alzheimer's. **Consciousness. Spatial** reasoning. **Music, aesthetics**.
- This lab is open to projects in these areas, **or new areas** suggested by graduate or undergraduate members.

Tom Bever (tgb@email.arizona.edu)

- Regents' Professor of Linguistics, Psychology, Neuroscience, Cognitive Science, SLAT and BIO5
- Current projects include:
  - Genetic variation in brain organization for language.
  - Basis and nature of consciousness.
  - Cognitive basis of laws of form and aesthetic enjoyment.

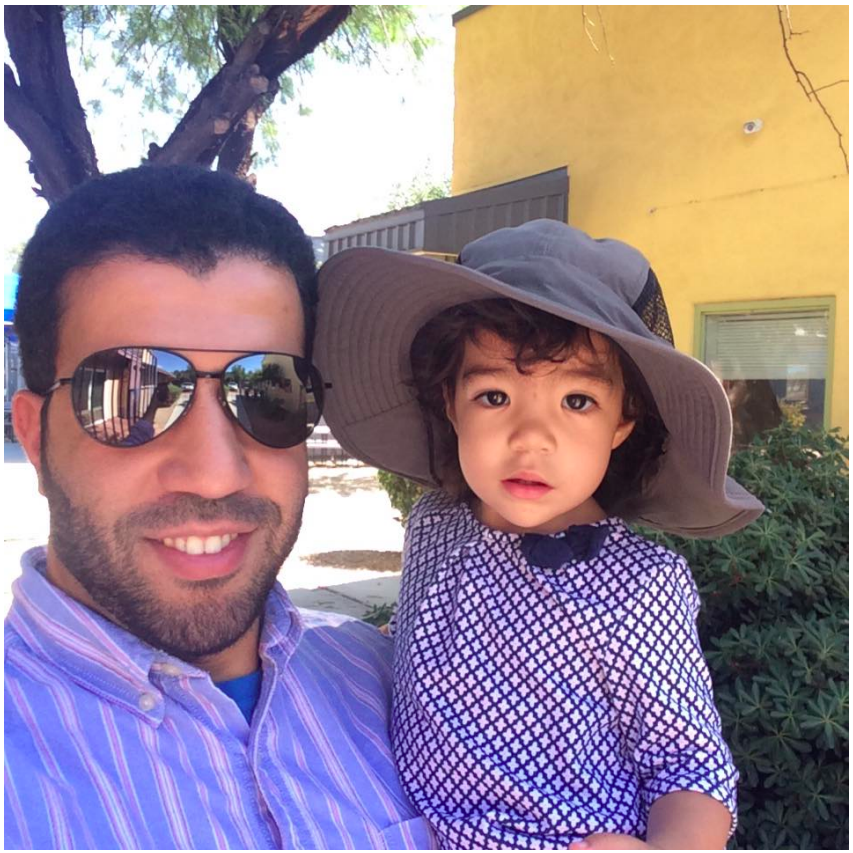


Opportunities in the Lab

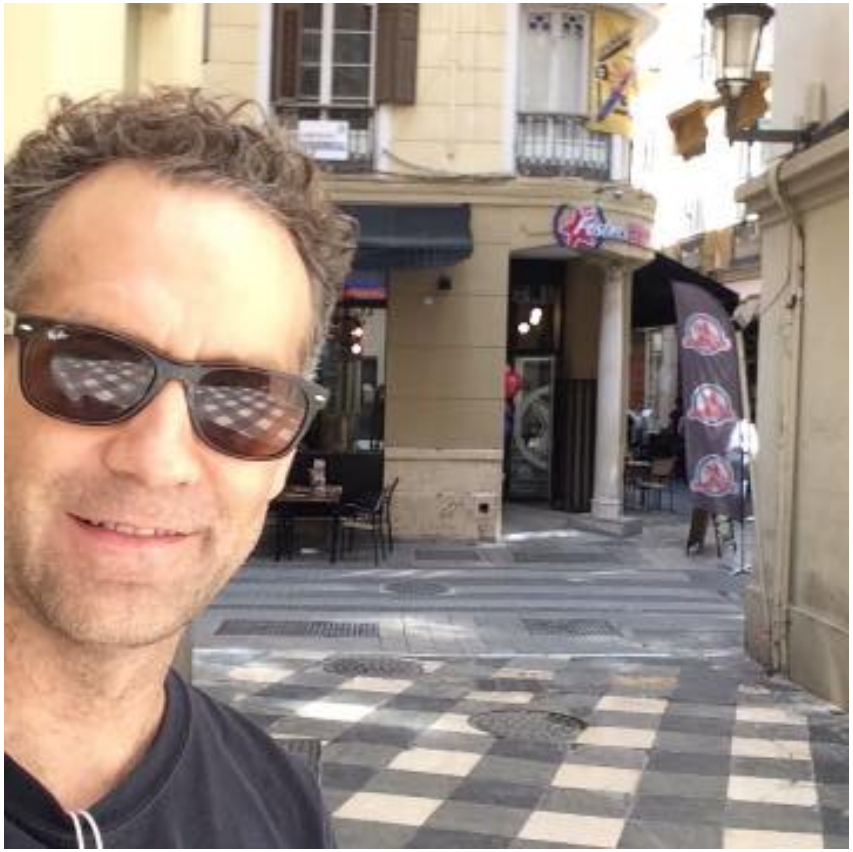
- Many projects in progress right now available for **undergraduate participation**.
- Participate in cutting-edge research on the interactions between general **cognition**, **language** structure, **brain** organization, **genetics** of language processing and learning.
- Get practical skills for cognitive science research: **E-Prime, R, Matlab, Praat**.
- General experience with creating stimuli, running subjects, etc.
- **EEG**, **eye-tracker** and potential **money** for undergraduate-led projects.
- Individually-set pace.

Hicham Assaoui (hassaoui@email.arizona.edu)

- Hicham works in experimental syntax and semantics, contrasting **Arabic** and other languages.
- His unfolding project will be specifically on **Arabic** anaphora resolution, measuring Event Related Potential (ERP).
- He will need assistants to run participants and help analyse data.



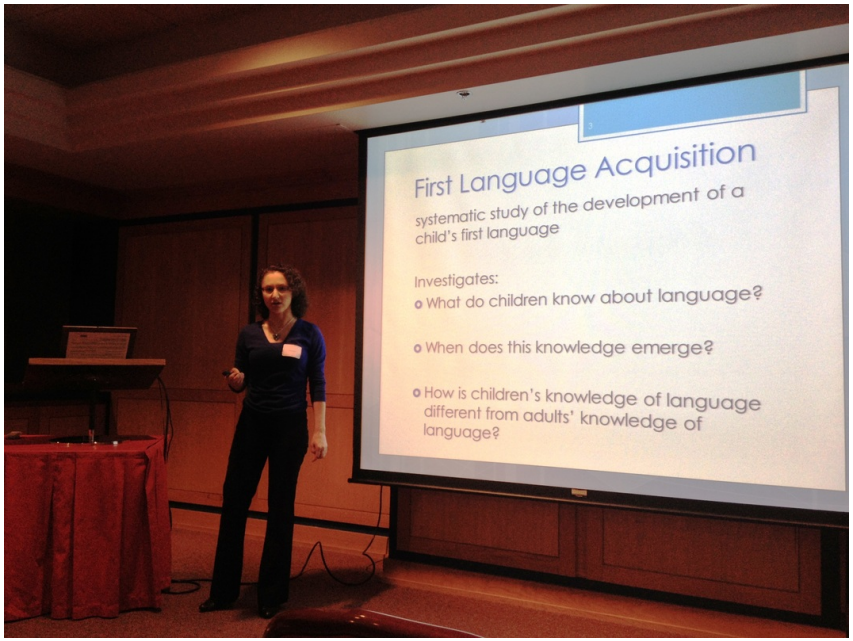
Zachary Brooks (zbrooks@email.arizona.edu)



- Zach works on the interface of second language acquisition and its **influence on thought processes** and cognitive behavior.
- His current work involves the effect of partially learnded seconds languages on decision making.
- Research assistants can help with subject running and data analysis. They may also contribute ideas about languages they know.

Rachel Brown (rachelbrown@email.arizona.edu)

- Rachel works on how **contexual information** helps disambiguate ambiguous sentences contrasting ambiguous sentences that have the same meaning ("automatic printing machine") with unambiguous sentences ("large printing machine").
- What happens behaviorally and in the brain when prior context forces one structure or the other? This involves **brain imaging** of various kinds.
- Looking for people to help create stimuli and operate the EEG, also analyse the results.



Stanley Donahoo (stanleydonahoo@email.arizona.edu)

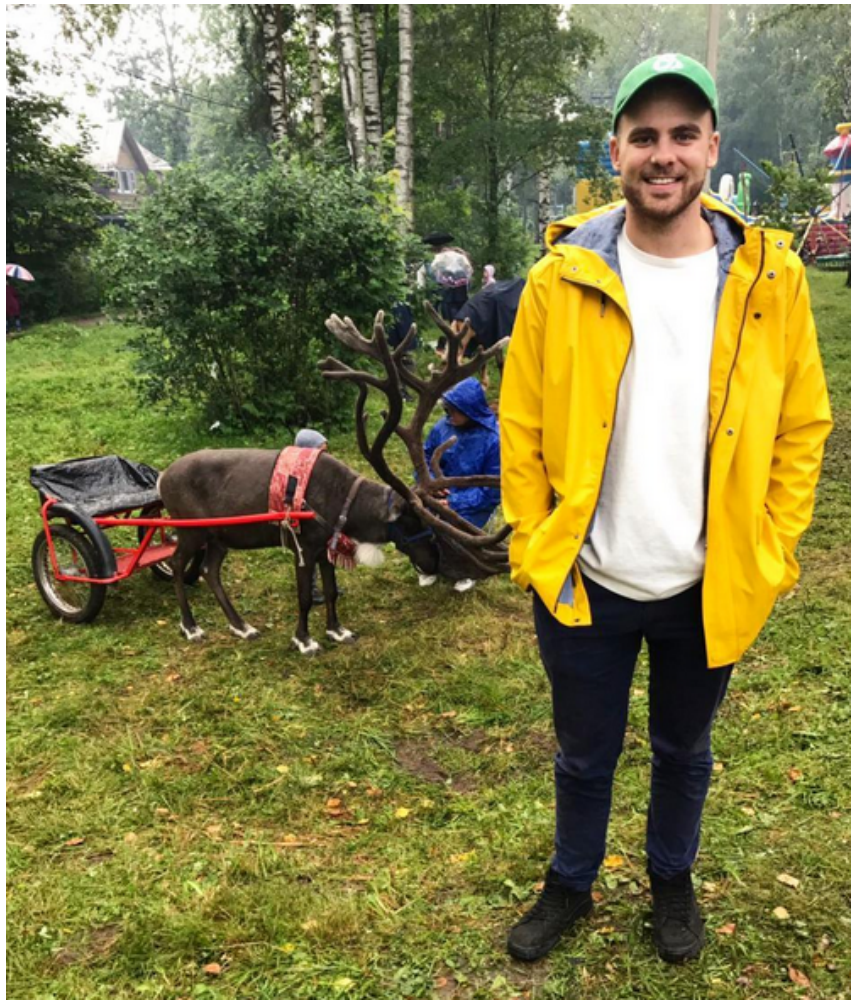
- Stanley works on how pragmatic knowledge influences language production and understanding.
- Currently, he's focused on how **discourse particles** affect meaning (words like "well", "oh", "I mean", "you know"), along with inserted **swear words**.
- These kind of constructions have linguistic meaning, but a partially non-linguistic neurology with specific neurological effects.

Shannon Grippando (sgrippando@email.arizona.edu)

- Shannon works on the effects of **written language** on other levels of language comprehension in English and Japanese.
- How does the learning and categorization of written words affect actual speech?
- Needs boots on the ground for data analysis and help running experiments and working with the EEG and eye tracker.
- Interested in students with ideas about research in **other languages**.

Joshua Meyer (joshuameyer@email.arizona.edu)

- Josh is developing **computational techniques** and tools for creating language corpora for use in interactive technologies such as Siri and Google.
- He focuses on techniques to develop these technologies for **poorly studied** languages that do not yet have them.
- His current project involves creating a corpus for the **Kyrgyz** language (of Kyrgyzstan).



Leah Rice (lcrice@email.arizona.edu)

- Leah works on the **neurology of language**, and attempts to find correlaries of theoretical syntax in the brain.
- She's currently researching the processing of relative clauses and prepositions, which are a way of testing the psychological raeality of syntactic **"Phases"** in contemporary **Minimalist** theoretical syntax.
- She'd like assistants to help create stimuli, but also to help collect **MRI** and **EEG** data.

Luke Smith (lukesmith@email.arizona.edu)

- Luke works on motivating the different structure of different languages (like word order and grammar) from **prosodic constraints** or other non-linguistic factors.
- He approaches this from the standpoint of theoretical linguistic investigation, rather than behavioral or neurological experiments.
- He's always looking for people with novel ideas about language alternations or people willing to go searching grammars or consulting speakers for **new data**.

Contact and work with us!

- If interested in learning more about lab opportunities, **email any of the lab members** or Tom Bever.
  - TgB@email.arizona.edu
- We can direct you to the project you want or answer any questions you have!
- Location: Communication 304 (actually most of the south side of the third floor of Comm)
- Website: http://coglanglab.github.io