



The Human Mind!





- What is *Cognitive Science*?
 - Interdisciplinary study of the human mind
- What does *interdisciplinary* mean?
 - Studying mind from more than one perspective
 - Psychology, philosophy, neuroscience, linguistics, computer science...
- Why?
 - Each discipline contributes different things to our understanding of how humans think!



- Who is in Cognitive Science?
 - Over 125 undergraduate majors!
 - Four research labs
 - Six core faculty members
 - More than 20 faculty members across the university
 - Psychology, Biology, Math, Communication Sciences, Weatherhead, Engineering...



- Core Cognitive Science Faculty

Tony Jack:
Neuroscience,
Philosophy,
Psychology



How do humans control and understand their own mental processes?



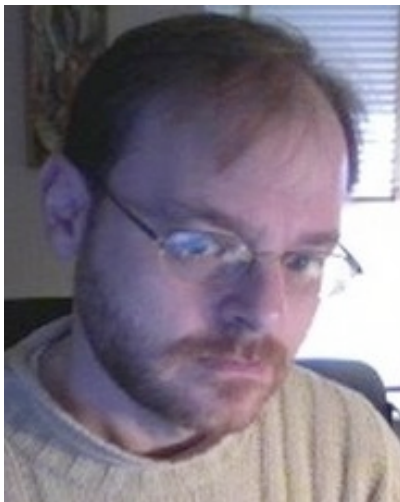
- Core Cognitive Science Faculty

Todd Oakley:

Linguistics,

Rhetoric,

Semiotics



How do we create meaning? How can models of meaning-construction be applied to written texts?

How can artificial agents help humans engage in meaningful behavior?



- Core Cognitive Science Faculty

Fey Parrill:

Psychology,
Linguistics



What can multimodal language (speech, gesture, sign) tell us about human mental representations?



- Core Cognitive Science Faculty

Yanna Popova:

Literature,
Linguistics,
Philosophy



How does our subjective experiences of our bodies help ground human cognition, including language and aesthetic response?



- **Core Cognitive Science Faculty**

Vera Tobin:

Literature,
Linguistics,
Communication

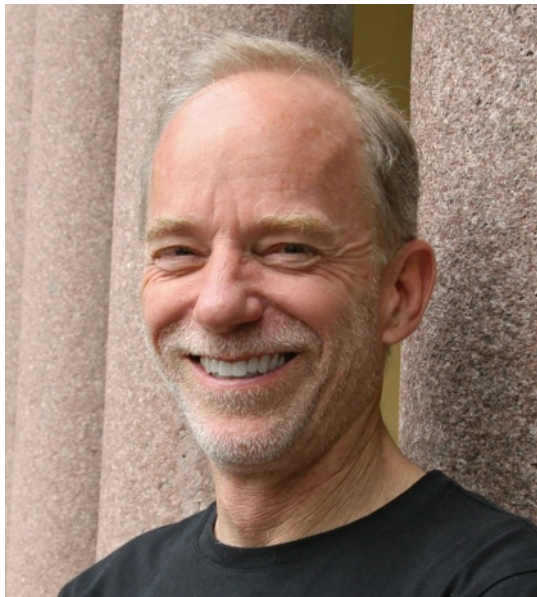


How do we make complex creative works with minds that are optimized for quick-and-dirty calculations and face-to-face communication?



- Core Cognitive Science Faculty

Mark Turner: Language, Communication, Decision, Marketing,
Law, Mathematics



What higher-order cognitive operations distinguish human beings from other species and how do they operate?



- What kind of research can students do?
 - Cognition and media
 - Decision & choice (e.g. microeconomics, law, . . .)
 - Brain imaging
 - Language, speech processing
 - Symbolic processing
 - Gesture & cognition
 - Artistic expression
 - Literature & cognition
 - Music & cognition
 - Technology & external representation....



- Red Hen Lab for the Study of Multimodal Communication



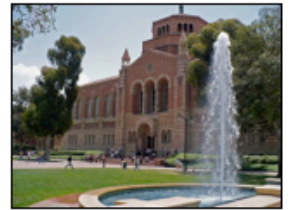
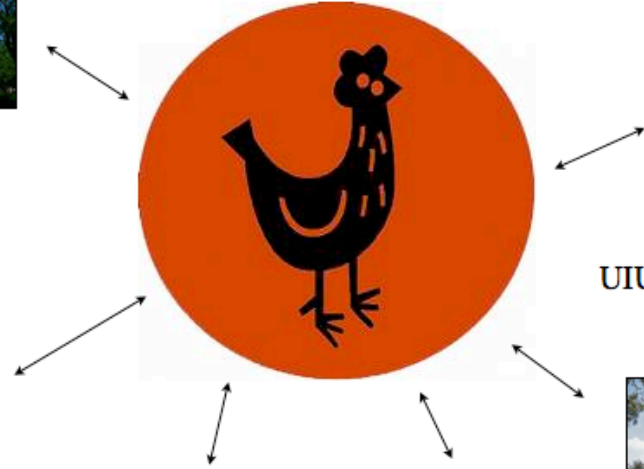
CWRU CogSci



UIUC Computer Science



Troll at SDU



UCLA Library



Brain, Mind and Consciousness Lab

Case Western Reserve University

[Home](#)

[People](#) ▾

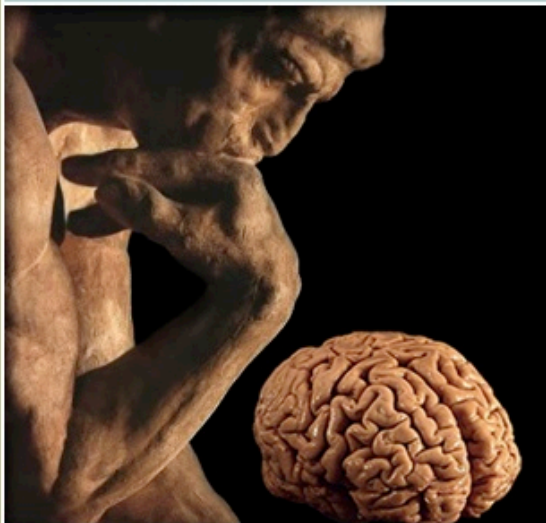
[Research](#)

[Publications](#)

[Participate](#)

[Stuff](#)

[Contact US](#)



" 'Thoughts' and 'things' are names for two sorts of object, which common sense will always find contrasted and will always practically oppose to each other."

- William James (1904)
Does 'Consciousness' Exist

PARTICIPATE IN OUR RESEARCH!

[Click here to take our quick survey on Culture, Mind and Morality](#)

[Click here to view details about the Cognitive Neuroscience Initiative Meeting that took place Wednesday, October 29th](#)

Welcome

The Brain, Mind and Consciousness laboratory investigates high-level cognitive processes using brain imaging (fMRI), behavior and introspective reports. We are particularly interested in areas of overlap, as well as separation, between psychological processes involved in social cognition, mechanical reasoning, attention and self-awareness.

Our work is informed by neuroscience, psychology and philosophy. The laboratory is situated in the new and unique transdisciplinary [Department of Cognitive Science](#) at Case Western Reserve University; and part of Case's [Cognitive Neuroscience Initiative](#). We are involved in collaborations across the University and beyond, including the [Department of Neurology](#) in the Medical School, the Department of [Organizational Behavior](#) in the Weatherhead School of Management, and the departments of [Communication Sciences](#) and [Philosophy](#) in Arts and Sciences.

BMC Lab Summer 2009



Department of Cognitive Science

Home

People

Research

Get Involved

Events

Gesture & Cognition Lab

Why study gesture?

If you watch people talking, you'll notice that much of the time they are also moving their hands and arms around, or gesturing. Why do people do this? What's the connection between such gestures and spoken or signed language? What can studying these gestures about the human mind? These are the basic questions we study in the Gesture and Cognition Lab!

Want to participate in experiments?

The Department of Cognitive Science uses an on-line experiment management system to schedule study participation. Research in the Gesture & Cognition Lab is non-invasive, and usually fun. You will be compensated for your time.

CWRU Students

Want to come work for the lab? Possibly even get paid? You can learn how to conduct behavioral research, edit digital video and use software for speech and gesture transcription and analysis. This kind of research experience is highly valued by employers in a variety of fields. Contact us for more information (download the application form as a fillable pdf) and e-mail it to parrillabATgmailDOTcom. Students who have taken COGS 327: Gesture in Communication and Cognition receive preference.



- Home
- Research
- Publications
- Collaborations
- Events
- People
- Resources



LABORATORY FOR APPLIED RESEARCH IN COGNITIVE SEMIOTICS

SEARCH LARCS:

SEARCH

RELATED SITES :

- [Communication Sciences](#)
- [Cognitive Science](#)
- [Case Speech Production Lab](#)
- [Aarhus Center for](#)

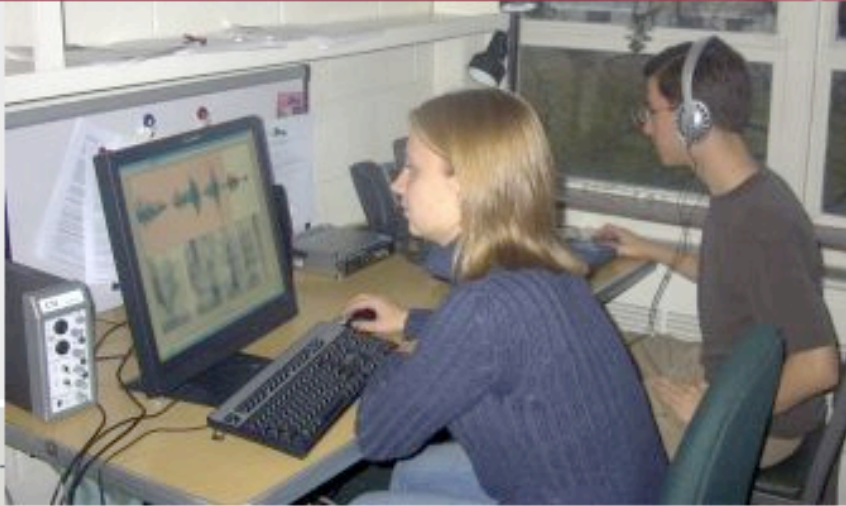
As language users we monitor our own writing, speech, reading, and oral reception of sentences as shaped by grammatical relations. We, in fact, cognize language as such in the act of using it, and we intuitively understand that the content of sentences is a semantic whole that forms a part of a larger whole of thought. The grammatical structure of a sentence—the assembly of its constructions, its syntax—is cognized as integrated in a whole of thought or meaning precisely by its relations. Syntax is therefore a meaningful “instance” in the architecture of language. Its structures are accessible to the language user, and they are projected into and extracted from the structures of the “instance” of phonetics. A similar process of projection and extraction connects it to the “instance” of thinking we usually call semantics.

Stemmatic representations of the grammatical relations shaping a sentence as a network



CASE SPEECH PRODUCTION LAB

- Site Home
- Research
- Publications
- Collaborations
- Events
- People
- Resources



Welcome to the CASE Speech Production Lab!

SEARCH CSPL:

Search input field and button

RELATED SITES:

- Cognitive Science
- Communication Sciences

The laboratory projects explore different aspects of normal and disordered speech production: neuro-biomechanical simulation of the vocal tract, mechanisms of control of prosody by linguistic analysis for applications to speech synthesis, and mechanisms of speech motor control and timing coordination among articulators, studied both on articulatory and acoustic

HIGHLIGHTS

NEW! Laboratory for Applied Research in Cognitive Semiotics

NEW! Center for Cognition and



- What kinds of courses can you take?
 - COGS 101 Introduction to Cognitive Science
 - COGS 102 Cognitive [Neuroscience](#)
 - COGS 206 Introduction to Cognitive [Linguistics](#)
 - COGS 301 Intro to Cognitive Semiotics
 - COGS 326 Cognitive Approaches to [Music](#)
 - COGS 328 Cognition & Visual Aesthetic Experience
 - COGS 363 [Philosophy](#) & Social Neuroscience
 - COGS 366 fMRI
 - COGS 201 Human Cognition in [Evolution](#) and [Development](#)
 - COGS 202 Human Cognition from a Cultural Perspective
 - COGS 301A Special Topics: Cognitive Diversity
 - COGS 301B Special Topics: Cognitive Robotics
 - COGS 304 Conceptual Integration
 - COGS 315 Mental Spaces
 - COGS 316 [Decision](#)-Making
 - COGS 324 [Discourse](#) & Cognition
 - COGS 327 [Gesture](#) in Communication and Cognition.
 - COGS 329 Cognitive Approaches to [Dance and Theatre](#).



What can you take this spring?

- COGS 102. Introduction to Cognitive Neuroscience. TR 2:45-4:00, Nord 410. Anthony Jack.
- COGS 202. Human Cognition Viewed from a Cultural Perspective. TR 10:00-11:15 (most likely), 400 Nord. Yanna Popova.
- COGS 302. Departmental Seminar. TR 2:45 - 4pm, 618 Crawford. Fey Parrill.
- COGS 316/416: Decision-Making. MW 12:30-1:45pm, 618 Crawford. Mark Turner.
- COGS 327/427. Gesture in Communication & Cognition. TR 1:15-2:30, 618 Crawford. Fey Parrill.
- COGS 366. Functional Magnetic Resonance Imaging. TR 4:30-5:45pm, Crawford 618. Anthony Jack.
- COGS 391/WLIT 391. Intro to Text Semiotics II. MW 9:00-10:15, 618 Crawford. Florin Berindeanu.



- What kind of career can you have with a degree in cognitive science?

Telecommunications, Medical analysis, Data representation and retrieval, Intelligence analysis, Human factors engineering, Computer-human interaction, Artificial intelligence, Human performance testing, Speech synthesis and voice recognition, Multimedia design, Linguistic analysis, Education, Marketing, Technical writing, Consultant...



- Why major in cognitive science?
 - You can pursue different interests (e.g., biology & music)
 - Great major for many career tracks
 - Medical school, law school, computer modeling, marketing, education, microeconomics, ...
 - You can learn about your own mind



- We have the best student organization!





- Want to learn more?
 - Come to our [department open house!](#)
 - Fri, October 12, 12:30pm – 2:00pm
 - Cognitive Science Lounge (Crawford Hall, 6th Floor)
 - Food! Beverages! Information!



Join us for **OPEN HOUSE**

When: **Friday** (October 12th) from
12:30-2:00 pm

Where: **Crawford Lounge** (6th Floor)

Food! Drink! Conversation!