

Linguistics 3701/Psychology 3371: Language and the Mind Spring 2021

Meeting times: TR 3:55-5:15

Meeting locations: online

Instructor: Dr. Becca Morley
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Office Hours: online only, by appointment

Course Description

This course is cross-listed in both Linguistics and Psychology. From this you can infer that you will learn about language as a scientific object of study, under the assumption that language is an inherent faculty of the human mind, and can be investigated using experimental methods. Unlike the ability to play chess well, speech comprehension is far easier for the majority of humans, but much, much harder for all computers. The reason for this likely lies at the intersection of human evolution, social organization, learning, and constraints on the rate and accuracy of signal transmission. Our historic failures at developing artificial systems that capture human-level performance must reflect incorrect hypotheses about how humans use and understand language. As we get closer to answering these big questions, we will know more and more about how human minds work in general.

OSU General Education Goals in Social Science: Individuals and Groups

Expected Learning Outcomes:

1. Students understand the theories and methods of social scientific inquiry as they apply to the study of individuals and groups.
2. Students understand the behavior of individuals, differences and similarities in social and cultural contexts of human existence, and the processes by which groups function.
3. Students comprehend and assess individual and group values and their importance in social problem solving and policymaking.

This course fulfills OSU general education Expected Learning Outcomes by introducing students to **the study of language as an empirical science**. Students will learn about linguistic analysis, linguistic theories, and experimental approaches to testing those theories. Students will also collect their own behavioral data from a series of mini-experiments.

Required Materials

Textbook:

Unless otherwise specified, all reading assignments refer to *Language in Mind: An Introduction to Psycholinguistics*, Julie Sedivy. 2014. Sinauer Assoc.

Devices:

1. Access to a tablet, laptop, or other internet-enabled computer (no cell phones please!)
2. A pair of earphones with microphone

Class Format & Procedures

This class was originally listed as a Hybrid mode of instruction. However, due to health issues, I am changing instruction to all online. Instruction is synchronous, which means attendance is required.

All class sessions will also be recorded and made available through the course website.

- Students will log into Zoom by the specified class meeting time. Note that the meeting start time is earlier than the class time. You have received the meeting link via the Announcement function. This will remain the same for the duration of the semester. Please use the Chat function when you log in, to indicate that you are present and sentient.
- You will be muted automatically when you join the meeting, and will need to turn your microphone on to speak. **However, if you can, please turn your video on.** There are few things worse than talking to a screen of black silent boxes.
- I hope to have as much in-class discussion as possible, given the format. Therefore, expect that I will call on individuals to answer questions*. You can also expect to participate in discussion as a class, as well as in smaller groups via break-out rooms.
- Questions are expected and encouraged. You can use the hand-raising function, raise your physical hand (make sure you have your video on), or enter your question in chat.
- All assignments will be turned in online. They will be graded and returned to you via the grading function. Note: you are responsible for calculating your own grade. **Don't trust the letter grade you see on Carmen.** Carmen automatically computes total grades when you enter in scores, based on some rubric that is not necessarily mine. Words cannot convey how much this irritates me.
- Check out <https://keeplearning.osu.edu>. It may have some useful information.

* All you have to do is make an attempt. You can be wrong. It's ok to be wrong. That's how science happens.

Grading & Evaluation

Assignments	Total Number	Points per assignment	Percentage of Total Grade
Activities & In-class Thought Experiments	~20	10	35%
Synopses	~12	30	30%
Labs	4	60	30%
LOC Credits	2	1	5%

Assignments will be described below. There may also be opportunities for extra credit throughout the semester.

Grading scale percentages

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E

Special Considerations & Late Work

The world is still a scary, messed-up place. Teaching and learning online is not ideal. We will all need to be flexible and compassionate with one another. I understand that sometimes you will miss class. It's not great; research shows that active learning works far better than passive learning. Try not to make a habit of it. If you do miss class, though, I do expect you to watch the recording. I will also expect you to turn in your assignments on time.

All assignments, other than the thought-experiments that we discuss in class, should be posted at least a day, and usually more, before they are due. What this means is that **I don't accept late work as a general rule**. The exceptions to this policy are actual emergencies, health issues, unavoidable time conflicts[†], family stuff, and possibly other things that you **let me know about in advance, or as soon as you know about them**.

If you happen to miss a class in which I assign a **thought experiment**, you may substitute the following: a summary of the class discussion (based on the recorded video), accompanied by what you think is the best idea, along with a brief discussion of why you think that. **This must be submitted no later than the day after the relevant class recording becomes available.**

Accommodation

LET ME KNOW NOW – NOT HALFWAY THROUGH THE SEMESTER

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Health and Safety Requirements

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>), which includes following university mask policies and maintaining a safe physical distance at all times. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses.

[†] That are not a regular occurrence. In other words, don't schedule work or other classes during our class times.

Mental Health Services

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you, or someone you know, is suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the **Office of Student Life's Counseling and Consultation Service (CCS)** by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org.

Ethics

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct* (<http://studentconduct.osu.edu>), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* may constitute "Academic Misconduct."

Respect

You should treat everyone in this classroom with respect. That means, among other things, using everyone's preferred name and preferred gender pronoun (PGP). You should also be aware of the norms of respectful address for your instructors. Don't use their first names unless you're given explicit permission. If you're not sure whether your instructor has a PhD or not, err on the side of caution; Professor and Doctor are always acceptable. If you *do* know that your instructor has a PhD *do not* use Mr., Mrs., Miss, or even Ms.

Assignments

Reading assignments are to be completed prior to class time on the day that they appear in the schedule. The same applies to submitted assignments, unless otherwise noted. To give you a little more time, assignments will occasionally be due on days we don't meet. To keep things simple, they will always be due by 3:55.

Assignments are broken down into four types. Points, approximate numbers and percentages are given above:

Synopses: We will discuss some original research articles in class, and I will ask you to provide brief written synopses. A template will be provided. We'll do the first one together in class, and the remainder will be done outside of class. Some or all of these will be done in small groups. You will have one week to complete these.

Activities: These are short assignments to be done out of class; you will typically have 1 day to complete them, but occasionally longer

Thought Experiments: These are in-class assignments that will crop up periodically during lectures, to be worked on in small groups, and then discussed as a class. We will do the first one entirely as a class, and a template will be provided. For subsequent assignments, one document per group should be submitted, including the names of all group members.

Labs: These are larger assignments that involve running real mini experiments. You will collect a small amount of data, qualitatively analyze that data, and write up your results. You may work with at most one other person, in which case, I will expect twice as much data as for an individual assignment. You will have 2 weeks to complete these. Labs will not be assigned until after week 7. More detailed instructions will be provided then.

LOC- Linguistics Outside the Classroom

To fulfill this requirement, you must complete **two LOC activities** during the course of the semester. To complete each requirement, you may participate in a linguistics experiment and/or attend a scheduled talk in the linguistics department.

Visit <https://linguistics.osu.edu/undergrad/loc> to see the talk schedule and sign up for experiments.

The first LOC activity is due by the end of the 8th week of the semester. The second activity is due by the last week of classes. These deadlines are set by IRB and I cannot change them. Note: When you participate in an experiment, you **MUST** sign up for the session before attending. It is your responsibility to turn in the completed questionnaire to your instructor by the due date.

Please see the handout **LOC_Information** for more details.

Thinking

I expect you to think for yourself in this class: to brainstorm ideas, to propose hypotheses, to speculate wildly. I will teach you some interesting facts, but the primary focus of this course is to teach you what language science is, and how to approach it experimentally. We will approach the material as a class-wide collaborative effort in service of answering real, deep questions about how the mind works.

I don't expect you to know anything coming in, but I do expect you to attempt to think about strange and novel things, sometimes without much in the way of explicit guidelines. This is scary. I know. It will leave you feeling uncertain and a little off-balance, which is exactly what doing science is like.

Warning: My experience tells me that you will likely succumb to one or more of the following fallacies:

- Questions should only be asked as an absolute last resort[‡]
- Being wrong is the worst thing that could ever happen to me
- Office Hours are for the weak – and should only be utilized once I have bombed on 4 assignments
- Probably everyone else totally knows what's going on, so I should just keep my mouth shut.
- **The fact that there is no single right answer means that there is no wrong answer.**

Finally, a few things that should be obvious, but alas:

Things that are my job

- Doing what I can – within reason – to help you learn the material
- Making my expectations clear
- Providing feedback on your performance
- Being consistent and coherent
- Being responsive to requests and complaints

Things that are not my job

- Going out of my way to enable you to pass without actually attending class
- Assisting you to exert the exact minimum amount of effort you need to pass the class
- Answering basic questions about assignments the night before they are due

[‡] This is the kind of class where you will probably feel much, much better about things if you ask questions. I like it when you ask questions. **Scientists are supposed to ask questions.**

Week	Date	Topics	Readings	Assignments
Week 1	1/12 (T)	Course Introduction <ul style="list-style-type: none"> • Language • Linguistics • The Scientific Method 		
	1/14 (R)	Human Language <ul style="list-style-type: none"> • Hockett's Design Features 	<i>pp. 1-12</i>	
Week 2	1/19 (T)	<ul style="list-style-type: none"> • Animal Communication Systems • Language & Cognition 	<i>pp. 13-23</i>	Activity 1 (1/20)
	1/21 (R)	<p style="text-align: center;"><u>Case Study 1:</u> <u>Infant Eye Gaze</u></p>	<i>Section 2.3</i>	Thought Experiment 1 (1/22)
Week 3	1/26 (T)	Language as a symbolic system (Linguistics): <ul style="list-style-type: none"> • Recursion • Abstractness 		Activity 2 (1/27)
	1/28 (R)	<ul style="list-style-type: none"> • Other symbol systems • A Hypothesis & A Discursus into Writing Systems 	<i>Section 2.4</i>	Synopsis 1 (1/29)
Week 4	2/2 (T)	Language Evolution <ul style="list-style-type: none"> • Language Genesis • Language Change • Pidgins & Creoles 	Section 2.5	
	2/4 (R)	<p style="text-align: center;"><u>Case Study 2:</u> <u>Nicaraguan Sign Language</u></p>	Section 2.6	
Week 5	2/9 (T)	Language and the Brain <ul style="list-style-type: none"> • Disordered speech • Functional Neuroanatomy • Methodologies 	Ch. 3 – 3.2	Thought Experiment 2
	2/11 (R)		Ch. 3	Synopsis 2 due

	2/16	(T)	<u>Case Study 3:</u> <u>Sign Language and Pantomime in the Brain</u>		Activity 3 (2/17)
Week 6	2/18	(R)	Language Acquisition 1: Sound units <ul style="list-style-type: none"> • Order and onset of acquisition • Infant Studies • Segmentation of the continuous speech stream 	Ch. 4 - 4.1	
Week 7	2/23	(T)	NO CLASS—INSTRUCTIONAL BREAK 1		
	2/25	(R)	<ul style="list-style-type: none"> • Statistical learning • Categorical perception • Rules and representations • Speech Perception 	Ch. 4	(Thought Experiment 3)
Week 8	3/2	(T)		Ch. 7.4	Synopsis 3 due
	3/4	(R)	Language Acquisition 2: Word units <ul style="list-style-type: none"> • Sound ↔ meaning • Reference • The lexicon • Parts of speech • Morphology 	Ch. 5 – 5.3	(Activity 4)
Week 9	3/9	(T)		Ch. 5	(Thought Experiment 4)
	3/11	(R)	Language Acquisition 3: Sentence units <ul style="list-style-type: none"> • compositionality • constituency • recursion • rules and representations 	Ch. 6 – 6.2	
Week 10	3/16	(T)	Case Study 4	Ch. 6	Lab 1 due
	3/18	(R)	Language Comprehension 1: Word Recognition <ul style="list-style-type: none"> • networks/neighborhoods • spreading activation models • priming and lexical decision tasks 	Ch. 7 – 7.2 only	
Week 11	3/23	(T)			(Synopsis 4)
	3/25	(R)	Language Comprehension 2: Sentence Processing <ul style="list-style-type: none"> • parsing • ambiguity resolution • frequency & predictability • working memory 	Ch. 8 - 8.1	(Thought Experiment 5)
Week 12	3/30	(T)		Ch. 8 – 8.5	(Activity 5)

	4/1	(R)	NO CLASS—INSTRUCTIONAL BREAK 2	

Week 13	4/6	(T)	Case Study 5		
	4/8	(R)	Language Production	Ch. 9 - 9.2	Lab 2 due
Week 14	4/13	(T)	<ul style="list-style-type: none"> • planning • speech errors • recency • top down/bottom up • working memory 	Ch. 9	(Activity 6)
	4/15	(R)	Communication beyond the content	Ch. 10- 10.2	(Synopsis 5)
Week 15	4/20	(T)	<ul style="list-style-type: none"> • reference • old v. new information • pragmatics • inferred information • mental models 	Ch. 10	
	4/22	(R)	Wrap up/Catch up		(Activity 7)
Finals Week	4/27	(T)			Lab 3 due