Psychology of Language

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Syllabus

Course information

Course: PSYC 712W – Psychology of Language

Pre-requisites: PSYC 402; PSYC 502; PSYC 512; or PSYC 513; or permission

Instructor: Prof. Casey L. Roark, PhD

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Class: Tuesday & Thursday 2:10-3:30 pm HORT 215

Office hours: Wednesday 1-3 pm in 440 McConnell Hall

Course Overview

Psychology of Language explores the cognitive and neural bases of human language. We use language in our everyday lives mostly effortlessly and without thinking. But underneath it all, language is extraordinarily complex. In this course, through lectures, reading, writing, and discussion, we will explore some of the feats and challenges of human language including (but not limited to):

- Components of language such as speech perception, speech production, reading, writing
- Whether language is a uniquely human and innate ability
- How children develop the ability to speak and understand language
- How language functions in the brain
- The relationship between language and thought
- What happens when language does not function typically

Course materials (required)

- Christiansen, M. H. & Chater, N. (2022). The Language Game: How improvisation created language and changed the world. Basic Books.
- Sedivy, J. (2014). Language in Mind: An introduction to psycholinguistics. Second edition. Oxford University Press.
- Other PDFs will be provided on the course website.

Course Description

Theories of language structure, functions of human language, meaning, relationship of language to other mental processes, language acquisition, indices of language development, speech perception, reading.

Course Learning Objectives

Upon completion of this course students will

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Course Structure

myCourses is the learning management tool we use for this course. The course is organized by class meetings.

Grades

Item	% of final grade	Requirements
Quizzes	15%	There are 5 quizzes for this course, which are scheduled on the course calendar. Each quiz is worth 3% of the final grade (5 quizzes x 3% = 15% total)

Item	% of final grade	Requirements
Class Attendance, Participation, and Discussion	20%	Attending and participating in class are important parts of this course. Attendance will be taken in each class period. Participation will be assessed for each class period and students will be given multiple options for participation over the course of the semester (e.g., group discussion, pair discussion, self-reflection, in class activities, etc.)
Thought Papers	20%	There are four required thought papers for this course. Each week will come with the opportunity to complete a thought paper and students are expected to complete at least four over the course of the semester. Each paper will be worth 5% of the final grade (4 papers x 5% = 20% total)
Lab Reports	15%	Students will be required to complete three lab reports during the semester. Each lab report will be worth 5% of the final grade (3 lab reports x 5% = 15% total)
Final Presentation	15%	There will be a final presentation in the final weeks of the semester.
Final Paper	15%	There will be a final paper along with the presentation in the final weeks of the semester.

Technical Requirements and Technical Support

See website listings for current recommendations and requirements related to this course -

For technical assistance please call (603) 862-4242 or fill out an online support form

University Disability Accommodations

The University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you must register with Student Accessibility Services (SAS)

http://www.unh.edu/studentaccessibility or directly contact SAS at (603) 862-2607.
Please provide me with that information privately so that we can review those accommodations.

Academic Honesty

Students are required to abide by the UNH Academic Honesty policy located in the Student Rights, Rules, and Responsibilities Handbook.

Plagiarism of any type may be grounds for receiving an "F" in an assignment or an "F" in the overall course. Plagiarism is defined as "the unattributed use of the ideas, evidence, or words of another person, or the conveying the false impression that the arguments and writing in a paper are your own." (UNH Academic Honesty Policy, 09.3) Incidents are reported to the school dean and may be grounds for further action. If you have questions about proper citation refer to your department's writing guidelines. You can contact me at any time on this issue. Additional resources are located below:

- http://libraryguides.unh.edu/unhmcitingsources
- http://www.library.unh.edu/reference/citation.shtml

Note

This syllabus is subject to change. Students will be promptly notified of any changes.

Course Schedule

Week	Date	Topics	Readings	Assignments
1	T 8/29	Introduction to Psychology of Language		
1	Th 8/31	Science of Language	Sedivy - chapter 1 C&C - chapters 1-2	
2	T 9/5	Brief Introduction to Language in the Brain	Sedivy - chapter 3	
2	Th 9/7	Speech Perception I	Sedivy - chapter 4	Thought Paper Option A
3	T 9/12	Speech Perception II	Sedivy - chapter 7	Thought Paper Option B
3	Th 9/14	Words, Meaning, and Concepts	Sedivy - chapter 5 C&C - chapter 3	Quiz 1
4	T 9/19	Words, Meaning, and Concepts	Sedivy - chapter 8	Thought Paper Option C
4	Th 9/21	Words, Meaning, and Concepts	Chen & Rogers (2014)	Lab Report 1
5	T 9/26	Sentences and Syntax	Sedivy - chapter 6	Quiz 2 Thought Paper Option D
5	Th 9/28	Sentence Processing	Sedivy - chapter 9	
6	T 10/3	Speaking	Sedivy - chapter 10	Quiz 3 Thought Paper Option E
6	Th 10/5	Is language innate?	C&C - chapter 4-5 Aslin & Newport (2012) Goldin-Meadow & Mylander (1998)	

Week	Date	Topics	Readings	Assignments
7	T 10/10	Is language special to humans? Non-human animal communication	Sedivy - chapter 2 C&C - chapter 7 Based on groups: Herbranson (2012), Pepperberg (2002), or Ramus et al. (2000)	Lab Report 2
7	Th 10/12	Is language special to humans? Language in machines	C&C - epilogue Kallens et al. (2023)	Thought Paper Option F
8	T 10/17	First Language Acquisition / Language Development	Sedivy - chapter 12 Based on groups: Goodluck (2010), Arunachalam & Waxman (2010), Gelman & Meyer (2011), Romberg & Saffran (2010), or Schwab & Lew-Williams (2016)	
8	Th 10/19	Second Language Acquisition	Juffs (2010)	Thought Paper Option G
9	T 10/24	Reading I	Sedivy - chapter 11 Treiman (2000)	Thought Paper Option H
9	Th 10/26	Reading II	Dehaene (2009) - selected pages	Lab Report 3
10	T 10/31	Language and Communication Disorders I - Aphasia	Doedens & Meteyard (2020)	Quiz 4 Thought Paper Option I
10	Th 11/2	Language and Communication Disorders II - Dyslexia	Ozernov-Palchik & Gaab (2016) pages 152-162	
11	T 11/6	Election Day; Sign Language and gesture	Brentari & Coppola (2013) Goldin-Meadow (2016)	Thought Paper Option J (last option to choose what you are writing about!)
11	Th 11/9	Language and Culture	Sedivy - chapter 13 C&C - chapter 6	

Week	Date	Topics	Readings	Assignments
12	T 11/14	Language and Thought	C&C - chapter 8 Boroditsky (2001) January & Kako (2007)	Thought Paper Option K (if you haven't started now – you need to do the last 4!)
12	Th 11/16	Language in the Brain	Poeppel et al. (2012)	Quiz 5
13	T 11/21	Language in the Brain II	Hamilton & Huth (2020)	Thought Paper Option L (only 3 left!)
13	Th 11/23	Thanksgiving Break - No Classes		
14	T 11/28	Language and Music	Gordon et al. (2015) Jantzen (2017)	Thought Paper Option M (only 2 left!)
14	Th 11/30	Presentations		
15	T 12/5	Presentations		Thought Paper Option N (only 1 left!)
15	Th 12/6	Last day of class, Presentations		
Finals	T 12/12	Reading Day		
Finals	12/13 - 12/19	Finals		**Final Paper**

Part I

Assignments

Lab Reports

Over the course of the semester, you will complete three lab reports. For each lab report, you will participate in online example experiments of the Psychology of Language outside of class time. You may complete these experiments using computer labs or your own computer. For each assigned experiment, you are expected to read the accompanying article (available on Canvas) to be able to describe the methodology, hypotheses, and outcomes. Be sure to read the article after participating in the experiment!

Lab Report Format

Your lab report should provide the following pieces of information:

1. Name of the lab and the date of your participation.
2. Write a description of what you did during the experiment.
3. Identify and explain how the independent variable(s) was/were manipulated.
4. Identify and explain how the dependent variable(s) was/were measured.
5. State the experimental hypothesis.
6. State the outcomes of the experiment.
7. Describe whether you think your data are consistent with the outcomes of the experiment. Why or why not?
8. Suggest future directions, such as how the experiment might be modified to improve the investigation or examine effects in other populations.
9. Write the APA-formatted citation of the accompanying article.

Write clearly, concisely, and with complete sentences. You should complete the lab reports on your own. You should submit your lab reports to Canvas via the assignment links on or before the due date/time to receive full credit.

An example lab report can be found here.

Lab Report Grading Rubric

Criteria	Great Job	Needs Work
1. Name and date	Provides accurate information (1 point)	Missing or inaccurate (0 points)
2. Description	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
3. Independent variables	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
4. Dependent variables	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
5. Experimental hypothesis	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
6. Outcomes	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
7. Your data	Provides clear description and specifically discusses relation between your experience and the outcomes written in the article (1 point)	Missing, unclear, or does not discuss relation between your experience and the outcomes written in the article (0 points)
8. Future directions	Provides unique future direction (1 point)	Does not provide unique future direction (0 points)
9. APA-formatted citation	Provides accurate APA citation (1 point)	Does not provide accurate APA citation (0 points)
Due date	Submitted on time (1 point)	Submitted late (0 points)

Lab Reports this Semester

Th 9/21, Audio-visual speech in noise (10-15 min)

- [Link to experiment](#)
- Article: Karas et al. (2019)

Th 9/28, Sentence prediction (5 min)

- [Link to experiment](#)
- Article: Gambi et al. (2021)

Th 10/26, Learning new words through reading (15-20 min)

- Link to experiment
- Article: Hulme et al. (2022)

Thought Papers

You must choose four options (one from each section) and complete those papers by the due date. Each paper should be at least one page (not including references) double spaced with 12-point font.

Section 1

Due 9/5, A: speech perception/intro

In the Sedivy chapter, she writes about things that people say about language that are almost certainly wrong (Table 1.1). Sedivy puts both "You can learn language by watching television" and "You can't learn language by watching television" on this list. Doing your own research online, write about the support for both claims. Do you think you can learn language by watching television? Relevant readings: Sedivy chapter 1.

Due 9/12, B: speech perception

Can speech perception be improved through training and practice? If yes, describe what might be a useful training paradigm. If no, explain why not. Relevant readings: Sedivy chapters 4 and 7.

Due 9/19, C: concepts/speech production

How do emotions and stress impact speech production? Give at least three examples of how different emotions influence speech production. Is emotional speech easier or harder to understand than neutral speech? Relevant readings: Sedivy chapters 5 and 10.

Due 9/26, D: concepts

How do our individual experiences and contexts shape our concepts? Can you think of any examples of how your own experiences or cultural background have influenced the way you understand certain concepts or categories? Relevant readings: Sedivy chapter 8.

Section 2

Due 10/3, E: sentence processing

Read the Introduction section (pages 1-2) of the Kinreich et al. (2017) paper. Why do you think that couples would have more brain-to-brain synchrony than strangers? Do you think this would apply only to romantic couples? Why or why not? Why do you think our brains are capable of brain-to-brain synchrony? In other words, what is the advantage of having this ability? Relevant readings: Sedivy chapter 6 and 9.

Due 10/10, F: Is language innate/special?

Based on the readings and your experience in class so far, do you think that language is an innate human ability? Give a few examples that argue for each side (language is innate and specific to humans vs. language is learned and is not specific to humans) and pick one at the end. Relevant readings: C&C chapters 4 and 5.

Due 10/17, G: Language development/language in machines

Choose a few examples from the textbook of challenges that children face in language development. Open ChatGPT (requires Open AI account but is free), Bard (access through Google but is free), or Bing (requires Microsoft account but is free). Give prompts to these AI language tools that match childrens' language challenges. Does the AI tool respond similarly to children? Give the response and explain why you think that the response matches or is different from children. Relevant readings: C&C chapter 7 and epilogue, Sedivy chapter 2.

Due 10/24, H: second language acquisition

How does one's first language facilitate and hinder second language acquisition? How does second language acquisition affect one's native language? Give at least two examples of each case (facilitate, hinder, affect). Relevant readings: Sedivy chapter 12.

Section 3

Due 10/31, I: Reading

How do digital technologies, such as e-books or online reading platforms, affect the way that readers interact with and process written texts? What are some of the advantages and disadvantages of these technologies? Give a few examples of how you might design digital reading

environments to support optimal reading comprehension and learning. Relevant readings: Dehaene chapters.

Due 11/7, J: Disorders

How does dyslexia affect abilities outside of reading? Does having dyslexia always make performance worse? Can you find an example of something individuals with dyslexia are better or faster at than typical individuals? Relevant readings: Dehaene chapters.

Due 11/14, K: Language and culture/sign language

How can signed language be used as a tool for promoting social justice and equity for deaf and hard-of-hearing communities? Discuss the potential impact of promoting signed language accessibility in society. Relevant readings: C&C chapter 6, Sedivy chapter 13.

Section 4

Due 11/21, L: Language and thought/language in the brain

Read the short article by Lupyan et al. (2007). In your own words, describe the main questions tested in the article and what the authors found. Why do you think that labels help people learn faster? If you could change the design to this study to improve learning even more, what do you think you would do? This can involve manipulating the labels, the stimuli, or something else, but be as specific as you can. Explain why you think this would help learning.

Due 11/28, M: Language in the brain

If you think about popular media about zombies, they vary in their motor skills (some are slow, others are very fast) and sensory abilities (some can't see, others have super hearing), but they usually don't vary in their language skills. Zombies don't have language. Or do they? Using what you know about language and the brain, why might zombies appear to have language deficits? Give a reasonable explanation about how zombies do not have the capacity for language and why this might be as well as how zombies may have the capacity for language, but cannot express it and why this might be. Relevant readings: Sedivy chapter 3.

Due 12/5, N: Language in the brain

Music, like language, involves a complex set of activities and mental processes. Try to generate as detailed a list as you can of the various components that go into musical and linguistic activity, going beyond those discussed in the textbook. What makes someone good at music or language? Once you've generated your lists, identify which of the skills that are needed for music appear to have close analogues in language. Where do you think it would be most likely that you'd see crossover in cognitive processing? Create a proposal for how you might gather evidence to support your idea of connections between music and language skills. Relevant readings: Sedivy chapter 3.

Final paper and presentation

Forthcoming.