Psychology of Language

Casey L. Roark

2023-10-31

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Welcome!

Learn about the cognitive and neural basis of our remarkable ability to communicate

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Instructor

- 👤 Dr. Casey L. Roark
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- 🐦 caseyroark
- 📅 Wednesday 1-3 pm or by appointment

Course details

- 📅 Tuesday and Thursday
- 📅 Fall 2023
- 🕐 2:10-3:30 pm
- HORT 215

Contacting me

E-mail is the best way to get in contact with me. I will try to respond to all course-related e-mails within 24 hours (really), but also remember that life can be busy and chaotic for everyone (including me!), so if I don't respond right away, don't worry!

Syllabus

Course information

Instructor

- 👤 [Dr. Casey L. Roark](#)
- 🏛 440 McConnell Hall
- ✉ [casey.roark@unh.edu](#)
- 🐦 [caseyroark](#)
- 🗓 Wednesday 1-3 pm or by appointment

Course details

- ▶ PSYC 712W – Psychology of Language
- ☑ Pre-requisites: PSYC 402, 505, 512, 513 or permission
- 📅 Tuesday and Thursday
- 📅 Fall 2023
- 🕐 2:10-3:30 pm
- HORT 215

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

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.

This is a writing intensive course.

Course Learning Objectives

The goal in this course is to teach you the skills and concepts needed to pose questions about the psychology of language in a rigorous and scientific way, to research and evaluate scientific findings related to these questions, and to critically evaluate and develop research protocols that answer these questions. In the process, you will become better able to evaluate scientific claims presented in the media and elsewhere. You will participate actively in class lectures and discussions. In addition, you will participate in exercises and laboratories designed to introduce you to how to use science to understand language. You will design a research project to gain a hands-on understanding of the psychology of language. Whether you continue in science or not, this course will benefit you in thinking critically about everyday science claims in the media and in evaluating scientific evidence for decision making. You will become a critically-thinking consumer of science, learning to detect both flaws and benefits of experimental designs and interpretations and to formulate alternate explanations. If you complete the course successfully, you will be able…

- to recognize, analyze, and apply principles of scientific research

- to discover what is known about a research topic
- to understand how researchers study the psychology of language and when specific techniques are most useful
- to evaluate different perspectives on fundamental questions about human language
- to formulate a question about language in a way that can be tested empirically
- to communicate research findings and your thoughts orally and in writing
- to participate in experimental research and evaluate research findings
- to employ critical thinking in evaluating scientific claims

Course Structure

myCourses is the learning management tool we use for this course. The course is organized by class meetings. You will be able to find external readings and submit assignments. Please do not message me through myCourses – email me instead.

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)
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.)
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)

Item	% of final grade	Requirements
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)
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.

Course Policies

Office hours

Please watch this video on common misconceptions about office hours:

https://vimeo.com/270014784?embedded=true&source=vimeo_logo&owner=2248721

Office hours are set times dedicated to all of you. This means that I will be in my office waiting for you to come by and talk to me with whatever questions you have. This is the best and easiest way to find me and the best chance for discussing class material and concerns. If you are not available during my regularly scheduled office hours, please email me to schedule a different time to meet.

Attendance

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.). If you need to miss class for a planned activity, please let me know as far in advance as possible. If you need accommodation for a religious or cultural holiday/observance, you are encouraged to make the request as early in the semester as possible.

If you are dealing with an unexpected, extenuating circumstance that will keep you out of class or affect your performance for more than a day or two, reach out to the Dean of Students

(dean.students@unh.edu) to request a letter be sent to all your faculty. If you are required to miss a significant class, you will be provided temporary academic supports so that you can continue to make satisfactory progress in this course. Please contact your course instructor to discuss the specific types of supports that will be implemented during your absence.

Late work

I would **highly recommend** staying caught up as much as possible, but if you need to turn something in late, please let me know at least 24 hours before the due date. Specific policies for late assignments are listed for individual assignments.

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) or directly contact SAS: 227 Smith Hall or sas.office@unh.edu. Accommodation letters are created by SAS with the student. Please follow-up with me privately as soon as possible to ensure timely implementation of the identified accommodations in the letter. Faculty have an obligation to respond once they receive official notice of accommodations from SAS, but are under no obligation to provide retroactive accommodations.

Confidentiality and Mandatory Reporting of Sexual Violence or Harassment

The University of New Hampshire and its faculty are committed to assuring a safe and productive educational environment for all students and for the university as a whole. To this end, **the university requires faculty members to report to the university's Title IX Coordinator (Bo Zaryckyj, Bo.Zaryckyj@unh.edu, 603-862-2930/1527 TTY) any incidents of sexual violence and harassment shared by students**. If you wish to speak to a confidential support service provider who does not have this reporting responsibility because their discussions with clients are subject to legal privilege, you can contact SHARPP (Sexual Harassment & Rape Prevention Program) at (603) 862-7233/TTY (800) 735-2964. For more information about what happens when you report, how the university treats your information once a report is made to the Title IX Coordinator, your rights and reporting options at UNH (including anonymous reporting options) please visit student reporting options.

Help us improve our campus and community climate. If you have observed or experienced an incident of bias, discrimination or harassment, please report the incident by contacting the Civil Rights & Equity Office at UNH.civilrights@unh.edu or (603) 862-2930 voice/ (603) 862-1527 TTY / 7-1-1 Relay NH, or visit the CREO website. Anonymous reports may be submitted.

Lauren's Promise. I will listen and believe you if someone is threatening you. Lauren Mc-Cluskey, a 21-year-old honors student athlete, was murdered on October 22, 2018 by a man she briefly dated on the University of Utah campus. We must all take action to ensure that this never happens again. If you are in immediate danger, call 911 or UNH police ((603) 862-1427). If you are experiencing sexual assault, domestic violence, or stalking, please report it to me and I will connect you to resources or call UNH's Psychological and Counseling Services ((603) 862-2090).

Credit Hours

This syllabus reflects the federal definition of a credit hour, which entails a minimum 3 hours of engaged time per week per credit over a 15-week semester. Examples of engaged time include class time, assignments, examinations, laboratories, participation in course-related experiences (attending a talk or performance, speakers and events, fieldwork, etc.), conferences, and office hours. Student work reflects intended learning outcomes and is verified through evidence of student achievement. For more information, please see this document.

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 can be found through the library guides on citing sources.

Artificial Intelligence

Unless otherwise specified, the use of Automated Writing Tools, including ChatGPT and similar artificial intelligence (AI) tools, is strictly prohibited in this course, even when properly attributed. The use of automated writing tools is considered plagiarism (as defined by UNH's Academic Integrity Policy) and will be handled in accordance with the existing policy: "Use

or submission of intellectual property, ideas, evidence produced by another person, including computer generated text or work outsourced to third-parties, in whole or in part as one's own in any academic assessment without providing proper citation or attribution. In some cases, reusing one's own previous work without acknowledging or citing the original work can constitute self-plagiarism."

NameCoach

We have a new tool in Canvas, NameCoach, that will help us all to pronounce each other's names properly. Please join me in making our learning environment as inclusive as possible by recording your name (instructions here) and taking advantage of the opportunity to respectfully learn how to pronounce each other's names.

Curtailed Operations

If the university curtails operations due to weather, we will not hold in-person activities for our safety and the safety of others. As soon as possible, I will post an announcement on Canvas about due dates, any make-up work, and (if applicable) any online options that may make sense depending on where we are in the course. Please make sure you have access to the UNH Alert RAVE system. If needed, sign up for RAVE Alerts here.

Expectations

The following guidelines will create a comfortable and productive learning environment throughout the semester.

You can expect me to:

- Respect you as individuals
- Give timely feedback
- Assign work that meets the learning objectives of the course
- Adhere to the time expectations for a 4 credit course
- Give assessments that accurately reflect the material covered in class
- Provide clear and timely expectations for course requirements
- Reply to emails within 24-48 hours on weekdays

I expect you to:

- Be attentive and engaged
- Come to class ready to participate (having done the readings)
- Adhere to the highest level of academic integrity

- Spend an adequate amount of time studying course materials each week so you can identify where you need clarification early in the learning process
- Seek help when appropriate
- Communicate with me about challenges

General well-being and stress

Do your best to follow guidelines to keep physically healthy. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful. It is courageous to reach out for help.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Psychological and Counseling Services (PACS) is here to help, (603) 862-2090. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help. Your instructor can point you to resources.

If you or someone you know is feeling suicidal or in danger of self-harm, call someone immediately, day or night you can contact Rapid Response Access Point at 833-710-6477 or visit NH988.com. If the situation is life threatening, call the police. (UNH Police: (603) 862-1427; Off campus: 911).

If you or someone you know is experiencing food insecurity – worry about affording food – there are campus resources to help. Fill out a Swipe it Forward request form or visit the Cats' Cupboard in the MUB 140A. See this website for more Basic Needs Support and Resources.

General resources

Important Information about UNH Policies and Procedures for Students

Follow this link to view the UNH Academic Calendar that includes important dates for students and faculty including holidays and observances important to members of the UNH community: UNH Academic Calendar

Center for Academic Resources (CFAR)

Center for Academic Resources (CFAR) is where students go to improve their study skills, time management, and understanding of UNH's academic culture. Our professional educational counselors and peer academic mentors work within students' course materials to demonstrate best practices for learning concepts and preparing for exams. Find an appointment with an academic mentor of your choice on the CFAR calendar at https://unh.mywconline.com(https://unh.mywconline.com). To talk with a professional educational counselor, email us at unh.cfar@unh.edu, use Chat Live on our website at https://www.unh.edu/cfar, or stop by Smith Hall Second floor, Monday-Friday from 8:00-4:30. The CFAR website also has a large selection of study tips and tools.

Knack

Knack is a Peer-to-Peer tutoring platform that is available to all enrolled students for all undergraduate courses in Durham at no cost to students. Students looking for additional assistance outside of the classroom are advised to consider working with a peer tutor through Knack. UNH has partnered with Knack to provide students with access to verified tutors who have successfully completed this course. To view available tutors, visit unh.joinknack.com. and sign in with your student account.

Early Alert Progress Report

The University is invested in your academic success, and myWildcatSuccess is a tool to help you, your faculty, and your advisors communicate. If a faculty member is concerned about your academic behavior or performance, they may submit an academic alert – particularly around Week 5 (Sept. 22-Oct 1). Academic alerts are not punitive. The goal is to provide you with support and resources to support your success. If you receive an academic alert, you will receive an email to your UNH email address from my name in the format [Notification@GradesFirst.com] on behalf of . Alternately, find your Progress Reports under the Reports tab in myWildcatSuccess. To get to myWildcatSuccess, search for it under Tools in the portal my.usnh.edu. and save it to Shortcuts.

The email will contain the concern and campus resource links to help you address the concern before it becomes a problem. Please meet with your faculty member or your advisor about the concern. The purpose of these alerts is to encourage you to visit the campus resources you need early on, so that you can get back on track for a successful semester.

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 I	C&C - chapter 3	Quiz 1
4	T 9/19	Words, Meaning, and Concepts II	Sedivy - chapters 5 and 8 (up to 8.4)	Thought Paper Option C
4	Th 9/21	Sentences and Syntax	Sedivy - chapter 6	Lab Report 1
5	T 9/26	Sentence Processing	Sedivy - chapter 9	Thought Paper Option D
5	Th 9/28	Speaking	Sedivy - chapter 10	Quiz 2
6	T 10/3	Is language innate?	Sedivy - chapter 2 C&C - chapter 4-5	Thought Paper Option E
6	Th 10/5	Is language special to humans? Non-human animal communication	C&C - chapter 7 Based on groups: Berwick et al. (2011), Beecher et al. (2007), or Ramus et al. (2000)	Thought Paper Option F

Week	Date	Topics	Readings	Assignments
7	T 10/10	Is language special to humans? Language in machines	C&C - epilogue Contreras Kallens et al. (2023)	Lab Report 2
7	Th 10/12	First Language Acquisition / Language Development	Sedivy - chapter 12 (up to 12.3) Schwab & Lew-Williams (2016)	Quiz 3 Thought Paper Option G
8	T 10/17	Second Language Acquisition	Bjork & Kroll (2015)	Thought Paper Option H
8	Th 10/19	Reading	Sedivy - chapter 8 (starting 8.4) Treiman (2000)	Final paper proposal
9	T 10/24	Language and Communication Disorders I - Dyslexia	Vellutino & Fletcher (2005)	Thought Paper Option I
9	Th 10/26	Proposal feedback and time to work on project		Lab Report 3
10	T 10/31	Language and Communication Disorders II - Aphasia	Doedens & Meteyard (2020)	Quiz 4
10	Th 11/2	Sign Language and Gesture	Brentari & Coppola (2013) Goldin-Meadow (2016)	Thought Paper Option J
11	T 11/7	Classes follow a Friday schedule: No meeting Election Day		Thought Paper Option K
11	Th 11/9	Language and Culture	Sedivy - chapter 13 (up to 13.3) C&C - chapter 6	
12	T 11/14	Language and Thought	Sedivy - chapter 13 (starting 13.3)C&C - chapter 8	Thought Paper Option L
12	Th 11/16	Final paper draft peer-review (no class meeting)		Final paper draft
13	T 11/21	Language in the Brain	Poeppel et al. (2012) - selected sections	Quiz 5Thought Paper Option MOptional APA assignment due

Week	Date	Topics	Readings	Assignments
13	Th 11/23	Thanksgiving Break - No Classes		
14	T 11/28	Language and Music	TBD	Thought Paper Option N
14	Th 11/30	Presentations		
15	T 12/5	Presentations		
15	Th 12/7	Last day of class, Presentations		
Finals	T 12/12	Reading Day		
Finals	T 12/19, 12:30PM	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
Name and date	Provides accurate information (1 point)	Missing or inaccurate (0 points)
Description	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
Independent variables	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
Dependent variables	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
Experimental hypothesis	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
Outcomes	Provides clear and accurate description (1 point)	Missing, unclear, or inaccurate (0 points)
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)
Future directions	Provides unique future direction (1 point)	Does not provide unique future direction (0 points)
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 10/10, Word learning through disfluent speech (5 min)

- [Link to experiment](#)
- Article: Libersky et al. (2023)

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 9/7, A: Thinking about Language

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 in noisy contexts 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

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.

Due 9/26, D: 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 chapter 9.

Section 2

Due 10/3, E: Sentence Processing

Read the Introduction section (pages 1-2) of the article by Kinreich et al. (2017). 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 10/5, 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 10/12, 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 10/17, 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 10/24, 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 disad-

vantages of these technologies? Give a few examples of how you might design digital reading environments to support optimal reading comprehension and learning.

Due 11/2, J: Language and Communication Disorders

How does dyslexia affect abilities outside of reading? Does having dyslexia always make performance worse? Describe an example of something individuals with dyslexia are better or faster at than typical individuals and explain why this might be, linking to at least one theory of dyslexia discussed in class.

Due 11/6, K: Language and Culture

Read the Introduction section (pages 1-2) of the article by Bailey et al. (2022). In your own words, describe the purpose and basic methodology of the study. More generally, discuss how language shapes our perceptions of gender roles and expectations.

Section 4

Due 11/14, L: Language and Thought

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 11/21, 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 11/28, N: Language and Music

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.

Thought Paper Grading Rubric

Criteria	Great Job	Needs Work
Name and date	Provides accurate information (1 point)	Missing or inaccurate (0 points)
Length	At least one page not including references (1 point)	Less than required (0 points)
Formatting	Double spaced, 12 point font (1 point)	Inaccurate formatting (0 points)
Content	Provides clear, thoughtful discussion of the prompt that shows the student read the paper (if required by prompt) and meaningfully engaged in thinking about the prompt and their response (6 points)	Unclear or does not demonstrate meaningful engagement with the prompt (0-5 points)
Due date	Submitted on time (1 point)	Submitted late (0 points)

Final paper and presentation

The goal of the final paper and presentation is for you to think deeply about how we use experimental methods to answer questions about the psychology of language. You will write a paper and give a presentation that outlines a research proposal for a new experimental study about the psychology of language. You are welcome to design a follow up study to one of the studies we read about in class or choose a different topic that interests you.

There are five milestones for this assignment:

1. **By 10/19 at 2:10PM**, submit a short proposal (1/2-1 page) of a specific research question you will explore in the final paper and presentation. The proposal should detail some questions that you are interested in investigating. It should also include at least two empirical papers (outside of course materials) that you plan to read. I highly suggest you spend some time before this deadline beginning to think about this project so I can give you specific feedback and get you on the right track from the beginning. You can submit one or two ideas for feedback.

2. **By 11/15 at 9PM**, complete a detailed outline or rough draft (~3-6 pages) of the final paper that will be peer-reviewed by a classmate and reviewed by me. This outline/draft should include the research question and any sub-questions, a detailed overview of the experimental method that you would use to answer the research question, anticipated/hypothesized results. You should cite at least five empirical sources (outside of course materials).

3. **By 11/16 at 9PM** (especially during the class period on 11/16), peer-edit the assigned paper. Read the draft using track changes in Microsoft Word to make any suggestions or comments. Write down any question you have – were any parts confusing? Write down parts that you liked. It is possible that these edits will not be anonymized, so keep that in mind. Submit the edited draft to Canvas.

4. **By 11/30** (Th 11/30, T 12/5, Th 12/7), you should prepare a 5-7 minute presentation about your proposed project. You should include an introduction that lays out the purpose/question of the planned experiment, the method of the planned experiment, and the anticipated/hypothesized results. You should be prepared to answer questions about your presentation.

5. By **12/19 at 12:30PM**, you should submit a final draft of the paper, incorporating feedback from the outline/draft. The paper should be at least 1500 words long (~ 6

double spaced pages in 12 pt font, not including references or title page). The paper should be in APA format.

The paper should have the following parts:

- Title (on its own page)
- Abstract (on same pages as other sections below)
- Background and significance
- Proposed experiment(s)

  - Hypothesis/hypotheses
  - Experimental design
  - Possible anticipated/hypothesized results
  - Limitations

- References

Final Paper Grading Rubric

Criteria	Great Job	Needs Work
Proposal	Submitted on time (1 point)	Submitted late (0 points)
Outline/Rough Draft	Submitted on time (1 point)	Submitted late (0 points)
Peer-edited Draft	Submitted on time (3 points)	Submitted late (0 points)
Final Draft	Submitted on time (1 points)	Submitted late (0 points)
Title Page	Present in APA format (1 point)	Missing or inaccurate (0 points)
Abstract	150-250 words that clearly describes importance of topic (1 point), introduces proposed experiment (1 point), gives basic experimental design information (1 point), provides summary of anticipated results (1 point), and big-picture conclusion about topic (1 point)	Missing elements (-1 point for each)
Background and significance	At least five paragraphs (1 point) that introduces topic (2 points), reviews at least 5 articles from the literature (5 points), and provides context for topic and hypothesis (2 points)	Missing or unclear elements (-1 point for each)

Criteria	Great Job	Needs Work
Proposed experiment	Gives detailed description of hypothesis (1 point), experimental design (2 points), anticipated results (2 points), and limitations (1 point)	Missing or unclear elements (-1 point for each)
References	APA formatted reference list of all in-text citations (1 point)	Missing or inaccurate (0 points)
Length and formatting	1500 words, 6 pages (without title page or references), double spaced in 12 point font (1 point)	Less than required (0 points)

Final Presentation Grading Rubric

Criteria	Great Job	Needs Work
Due date	Present on assigned date (5 points)	Present late (0 points)
Timing	5-7 minutes (5 points)	Under 5 minutes or over 7 minutes (-# points depending on how much)
Introduce topic	Provides clear and accurate description (5 points)	Missing, unclear, or inaccurate (-# points depending on how much)
Experimental method	Provides clear and accurate description of experimental methods including explicit definition of independent variables (1 point), dependent variables (1 point), experimental hypothesis (2 point), and an example from the task (2 points)	Missing, unclear, or inaccurate (-1 or 2 for each)
Anticipated results	Provides clear and logical description of anticipated results (with clear dependent variable units: 2 points) and how this relates to experimental hypothesis (2 point), as well as at least one alternative hypothesis (1 point)	Missing or unclear (-1 or 2 for each)
Limitations and future directions	Provides at least one limitation of the experimental design (2 points) and one future direction (2 points)	Missing or unclear (-2 for each)

Capstone Option

Regardless of whether you add a capstone component to this course, you will complete a final paper and presentation which are based on a proposed project. If you add the capstone component to this course, you will additionally be expected to implement the design of your proposed final project using experiment software (with my supervision), collect data for this project (even informally from a few friends), complete basic data analysis of the project, and write up the actual results (rather than just anticipated results).

If you choose to take this course with a capstone designation, you must complete the additional paperwork and submit it to the Psychology department. For the description of the project you can write the following: design experiment on psychology of language, collect and analyze data, interpret results, and write about findings.

Because the capstone option is highly integrated with the final project, I have integrated both sets of milestones and expectations here. If you do not take this course with a capstone option, you will only be expected to complete the milestones and expectations outlined in the Final paper and presentation documentation.

There are eight milestones for the capstone project:

1. **By 10/19 at 2:10PM**, submit a short proposal (1/2-1 page) of a specific research question you will explore in the final paper and presentation. The proposal should detail some questions that you are interested in investigating. It should also include at least two empirical papers (outside of course materials) that you plan to read. I highly suggest you spend some time before this deadline beginning to think about this project so I can give you specific feedback and get you on the right track from the beginning. You can submit one or two ideas for feedback.

2. **By 10/31 at 2:10PM**, sign up for free account on gorilla.sc, complete introduction and tutorial workshops, and submit a detailed design and analysis plan. The design and analysis plan should connect your proposed research experiment to an explicit experimental design with sufficient detail about dependent/independent variables and experimental hypothesis/hypotheses. You should also give detail about the specific summary statistics (e.g., means, standard deviations) that you will report about your dependent variable(s). Finally, you should explain the statistical test you propose to use to test your experimental hypothesis.

3. **By 11/16 at 2:10PM**, share your experiment with me on Gorilla by adding me as a collaborator. On your project, click Settings at the top right, then Collaborate. Search for Casey Roark and then add to project. You should use Casey Roark not Casey Roark (CMU). Make sure that both Make Changes and View Data have the green checkmark selected.

4. **By 11/15 at 9PM**, complete a detailed outline or rough draft (~3-6 pages) of the final paper that will be peer-reviewed by a classmate and reviewed by me. This outline/draft should include the research question and any sub-questions, a detailed overview of the experimental method that you would use to answer the research question, anticipated/hypothesized results. You should cite at least five empirical sources (outside of course materials).

5. **By 11/16 at 9PM** (especially during the class period on 11/16), peer-edit the assigned paper. Read the draft using track changes in Microsoft Word to make any suggestions or comments. Write down any question you have – were any parts confusing? Write down parts that you liked. It is possible that these edits will not be anonymized, so keep that in mind. Submit the edited draft to Canvas.

6. **By 11/30** (Th 11/30, T 12/5, Th 12/7), you should prepare a 5-7 minute presentation about your proposed project. You should include an introduction that lays out the purpose/question of the planned experiment, the method of the planned experiment, and the anticipated/hypothesized results. You should be prepared to answer questions about your presentation.

7. **By 12/19 at 12:30PM**, you must collect data from at least five individuals through Gorilla. After you design your experiment (with my supervision and approval), you can collect pilot data from five participants by clicking on your experiment, clicking on Preview experiment and having them run through all experiment parts. At the very end – be sure to **manually save your data** as a csv or xlsx file or else your data will be lost! Share these data files in myCourses for the Capstone project.

8. **By 12/19 at 12:30PM**, you should submit a final draft of the paper, incorporating feedback from the outline/draft. The paper should be at least 2500 words long (~ 10 double spaced pages in 12 pt font, not including references or title page). The paper should be in APA format.

The paper should have the following parts:

- Title (on its own page)
- Abstract (on same pages as other sections below)
- Background and significance
- Method

    – Hypothesis/hypotheses
    – Experimental design

- Results

  - Description of analyses run
  - Summary statistics
  - Detailed experimental results
  - Figures

- Discussion

  - Interpretation of results in relation to experimental hypothesis
  - Limitations

- References

Final Paper Grading Rubric

Criteria	Great Job	Needs Work
Proposal	Submitted on time (1 point)	Submitted late (0 points)
Gorilla tutorials completed	Completed	Did not complete
Design and analysis plan	Completed	Did not complete
Outline/Rough Draft	Submitted on time (1 point)	Submitted late (0 points)
Peer-edited Draft	Submitted on time (3 points)	Submitted late (0 points)
Shared design in Gorilla	Completed	Did not complete
Data collection	Five or more subjects	Fewer than five subjects
Final Draft	Submitted on time (1 points)	Submitted late (0 points)
Title Page	Present in APA format (1 point)	Missing or inaccurate (0 points)
Abstract	150-250 words that clearly describes importance of topic (1 point), introduces proposed experiment (1 point), gives basic experimental design information (1 point), provides summary of anticipated results (1 point), and big-picture conclusion about topic (1 point)	Missing elements (-1 point for each)

Criteria	Great Job	Needs Work
Background and significance	At least five paragraphs (1 point) that introduces topic (2 points), reviews at least 5 articles from the literature (5 points), and provides context for topic and hypothesis (2 points)	Missing or unclear elements (-1 point for each)
Experiment design and method	Gives detailed description of hypothesis (1 point), experimental design (2 points)	Missing or unclear elements (-1 point for each)
Results	Includes description, summary statistics, detailed results with appropriate statistical tests, and figures (2 points)	Missing or unclear elements (0 points)
Discussion	Includes interpretation of results in relation to experimental hypothesis and limitations (1 point)	Missing or unclear elements (0 points)
References	APA formatted reference list of all in-text citations (1 point)	Missing or inaccurate (0 points)
Length and formatting	2500 words, 10 pages (without title page or references), double spaced in 12 point font (1 point)	Less than required (0 points)

Final Presentation Grading Rubric

Criteria	Great Job	Needs Work
Due date	Present on assigned date (5 points)	Present late (0 points)
Timing	5-7 minutes (5 points)	Under 5 minutes or over 7 minutes (-# points depending on how much)
Introduce topic	Provides clear and accurate description (5 points)	Missing, unclear, or inaccurate (-# points depending on how much)

Criteria	Great Job	Needs Work
Experimental method	Provides clear and accurate description of experimental methods including explicit definition of independent variables (1 point), dependent variables (1 point), experimental hypothesis (2 point), and an example from the task (2 points)	Missing, unclear, or inaccurate (-1 or 2 for each)
Anticipated (or actual) results	Provides clear and logical description of anticipated (or actual) results (with clear dependent variable units: 2 points) and how this relates to experimental hypothesis (2 point), as well as at least one alternative hypothesis (1 point)	Missing or unclear (-1 or 2 for each)
Limitations and future directions	Provides at least one limitation of the experimental design (2 points) and one future direction (2 points)	Missing or unclear (-2 for each)