

Language and Mind
GU4244
4 points
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Wednesdays 2:10-4, Fall 2023

Bulletin Description

This seminar explores the relationship between language and thought by investigating how language is mentally represented and processed; how various aspects of language interact with each other; and how language interacts with other aspects of cognition including perception, concepts, world knowledge, and memory. Students will examine how empirical data at the linguistic, psychological, and neuroscientific levels can bear on some of the biggest questions in the philosophy of mind and language and in psychology.

Full Description

This graduate/advanced undergraduate seminar will explore language in the mind. Students will read seminal and modern theoretical and empirical works exploring how language is mentally represented and processed; how various aspects of language interact with each other; and how language interacts with other aspects of cognition. A key feature of this seminar will be examining how empirical data can bear on some of the biggest questions in the philosophy of mind and language and in psychology, for example, the relationships between language and thought, the nature of meaning, and the contributions of “nature” and “nurture” to human development. The seminar will cover select topics from the primary areas of psycholinguistics – syntax, semantics, phonology, and pragmatics – and will give students familiarity with various techniques for exploring these areas at the linguistic, psychological, and neuroscientific levels. Finally, we will explore the relationship between psycholinguistics and important issues of our day, such as propaganda, climate change, disability, and artificial intelligence.

General advice for success in this class

To quote the scholar Kyla Wazana Tompkins, “We aren’t here to learn what we already know.” In this spirit, I invite you to approach this class with deep curiosity and a commitment to jump into the messiness of an emerging science.

This class is intentionally interdisciplinary, both in the selection of readings and in your backgrounds. This means that depending on the topic for the week, you may find the readings hard or easy, fascinating or boring. All of this is okay.

When you’re reading, I encourage you to think about what level you want to read that particular paper on. If it’s on something you find particularly interesting, perhaps something that relates to an honors thesis you will be writing, then you may want to read it with a lot of detail, making

sure you understand every nuance, even looking for other references that help you understand the article more deeply. If it's on something that is very far from your core interests, or on which you have little background, you may want to read it in a more general way, thinking about how it might relate to your own interests and trying to grasp the main idea.

I believe that learning to read in these different ways is important, especially for interdisciplinary, collaborative work. What does it mean to read a paper that is outside your own field and to get out of it enough that you can effectively collaborate with someone in the field? This is something we can try out in our class this semester, thinking of our discussions as interdisciplinary collaborations.

To this end, we all need every one of you to be fully present in our discussions. If you don't understand something you'd like to understand, please ask. If you don't understand why we are even reading a particular paper, you are welcome to share that. I ask that you bring with you to class respect for each other and me, curiosity, an open mind, and all of your unique gifts and backgrounds, and let's see where this takes us.

Prerequisites

PSYC UN1001 The Science of Psychology, or an equivalent introductory course in psychology. It is recommended that students have also taken an additional course in Psychology, preferably one focusing on cognition, development, or research methods. Instructor permission is required.

Role in the Psychology Curriculum

GU4244 is a seminar open to graduate students and advanced undergraduate students. It fulfills the following degree requirements:

- For undergraduates pursuing a Psychology major or concentration in the College or GS or the Psychology Postbac certificate, it meets the Group I (Perception & Cognition) distribution requirement.
- For Psychology majors and Psychology Postbac students, it fulfills the seminar requirement.
- For undergraduates pursuing the Neuroscience & Behavior major, it fulfills the advanced seminar requirement in the Psychology portion of the major.
- Graduate students in Psychology and junior and senior Neuroscience & Behavior and Psychology majors will have priority for registration.

Goals:

- Gain exposure to some of the deepest questions related to language and the mind across all of the primary areas of psycholinguistics and learn some methods for investigating these questions
- Understand what language can teach us about the mind and what the mind can teach us about language
- Understand how language interacts with other aspects of cognition
- Learn to analyze empirical papers critically to determine how well evidence supports a claim
- Develop strong oral and written communication skills

Assignments and grades

Reading Reflections: 20%

Discussion Leading: 25%

Project Proposal: 10%

Rough Draft: 15%

Final Draft: 15%

Flash Talk: 5%

Participation: 10%

1. **Reading reflections.** By 1pm the day before each class (Tuesday), you should submit a reading reflection on our Canvas discussion board. Reflections should be around 200 words, and rather than merely summarize the readings, should raise points that we can discuss in our seminar. These might include connections to other readings we have read in our seminar or that you have read in other classes; critiques of the methodology and/or how well the results of an experiment support the authors' claims; and/or a description of something you are having trouble understanding or would like to know more about and how you are going about trying to learn more (e.g., you weren't familiar with a statistical analysis the authors used, so you found an article explaining it, and you want to share what you are learning). Reflections may also/instead be responses to other students' postings. Each reading response will be graded on a scale from 1-5, (or 0 points if you do not make an attempt at all) based on how deeply you seemed to have engaged with the reading. If there is more than one reading for that day, you are welcome to write about just one or all of the readings (20% of grade)
2. **Discussion Leading.** Every student will lead the discussion on 1 paper (or two shorter papers). If you are in charge of a reading, you should prepare an introduction to make

sure everyone is on the same page and to raise key issues for discussion. The aim is not to summarize everything within a reading (since the class will already have read it), but you will be expected to be very familiar with the reading so that you can help answer others' questions. I strongly suggest you prepare slides or a handout to guide your introduction, and for me to post on Canvas so that everyone has access to it. You do NOT need to submit a reading reflection on a day when you are leading a class discussion (25% of grade)

3. **Independent study.** The goal of this assignment is to dive deep into a particular topic within language and mind and to grapple with open questions in the literature; and to immerse yourself in a topic that excites you. The end “product” is almost always a 10-12 page double-spaced paper on any topic within “language and mind,” but I hope that you truly will think of this project as an independent study. If you would like to do something in lieu of a paper, please speak to me about your idea well in advance. General advice is that narrower topics tend to be more successful. We can discuss what this means in class or individually. There are 4 parts to this assignment (all due at 11:59pm).
 - a. By October 5, you should write a 1-page proposal detailing a specific research question. Depending on your topic, it might include 2 competing hypotheses about the research question and an example of the type of evidence that could bear on this question, or it might simply spell out some sub-questions that you are interested in investigating. It should also include at least 2 sources that you plan to read. I highly suggest you spend some time before this deadline beginning to work on your project so that I can give you specific feedback and you can get on the right track from the beginning. (10% of grade)
 - b. By Nov 22, you should submit a rough draft of the term paper including the research question and any sub-questions, explaining experimental methods and results that relate to the research question, and trying to make sense of conflicting results and positions within the literature. You also have the option of proposing a new experiment at the end of your paper. You should cite at least 5 sources, and this should be a complete attempt at a paper, meaning at or close to the length of the final paper, proofread, etc. (15% of grade)
 - c. Flash Talks: During the final 2 classes (Nov 29, Dec 6), everyone will give a very brief talk on their project. (5% of grade)
 - d. By December 14, you should submit a final draft of the term paper, incorporating in feedback from the rough draft. (15% of grade)
4. **Participation:** For the first time, I am experimenting with including participation in your grade. I have always been wary to do this because quantifying participation is inherently subjective and because I don't want anxiety about participating the “right” amount to impede genuine discussions. However, class discussions are the core of any seminar, and I think it is only fair to give you credit for this contribution. Your participation grade will be based on a make space/take space model, and you are welcome to check in with me at any point during the semester if you would like feedback about your level of participation. (10% of grade)

Topics and Readings

Week 1 (9/6). Introduction

No Reading

Week 2 (9/13). Linguistic Relativity: Nuance through Empirical Evidence

Wolff, P. & Holmes, K. Linguistic Relativity. (2011). *WIREs Cognitive Science*, 2, 253-265.

Boroditsky, L. (2001). Does language shape thought?: Mandarin and English speakers' conceptions of time. *Cognitive Psychology*, 43, 1-22.

January, D. & Kako, E. (2007). Re-evaluating evidence for linguistics relativity: Reply to Boroditsky (2001). *Cognition*, 104, 417-426.

Week 3 (9/20). Linguistic Relativity: Language to Culture or Culture to Language

McWhorter, J.H. (2014). *The Language Hoax: Why the World Looks the Same in Any Language*, Oxford University Press. (Selections from the book.)

Week 4 (9/27). Nativism or Empiricism: Computational and Neuroscientific Evidence

Golato, Peter (2008). Theories of language processing. *Processing French*, Yale University Press, 8-31.

Newport, E.L., Seydell-Greenwald, A., Landau, B., Turkeltaub, P.E., Chambers, C.E., Martin, K.C., Rennert, R., Giannetti, M., Dromerick, A.W., Ichord, R.N., Carpenter, J.L., Berl, M.M., & Gaillard, W.D. (2022). Language and developmental plasticity after perinatal stroke. *Proceedings of the National Academy of Sciences*, 119, e2207293119. PMID: PMC9586296.

Week 5 (10/4). Which Comes First, the Meaning or the Word?

Snedeker, J. & Gleitman, L.R. (2003). Why it is hard to label our concepts, in S Waxman and G. Hall (eds.). *Weaving a lexicon*, NY: Cambridge Univ. Press, 1-37.

Leslie, S.J. (2012). Generics Articulate Default Generalizations. *Recherches Linguistiques de Vincennes: New Perspectives on Genericity at the Interfaces* (A. Mari, ed.), 41, 25-45.

Week 6 (10/11). Language across Modalities: Exploring Sign and Haptic Languages

Pyers, J. and A. Senghas (2009). Language promotes false-belief understanding: Evidence from a new sign language. *Psychological Science*, 20:7, 805-812.

Reed, C.M., Tan, H.Z., & Jones, L.A. (2023). Haptic communication of language. *IEEE Transactions on Haptics*, 16(2).

Week 7 (10/18). From the Whole to the Part: Gestalt Language Processing and its Connection with Autism

Mitchell, A. (2023). Resonant relations: eco-lalia, political ec(h)ology and autistic ways of worlding. *Environment and Planning E: Nature and Space*, 6(2), 1229–1251. <https://doi-org.ezproxy.cul.columbia.edu/10.1177/25148486221108177>

Luyster, R.J., Zane, E., & Wisman, W. L. (2022). Conventions for unconventional language: Revisiting a framework for spoken language features in autism. *Autism Dev Lang Impair*. doi: 10.1177/23969415221105472. PMID: 36382068; PMCID: PMC9620674.

Week 8 (10/25). Bilingualism: Acquisition and Processing

Sebastian-Galles, N., & Santolin, C. (2020). Bilingual acquisition: The early steps. *Annual Review of Developmental Psychology*, 2(1), 47-68. <https://doi.org/10.1146/annurev-devpsych-013119-023724>

Costa, A., Pannunzi, M., Deco, G., & Pickering, M. J. (2017). Do bilinguals automatically activate their native language when they are not using it? *Cognitive Science*, 41(6), 1629-1644. <https://doi.org/10.1111/cogs.12434>

Week 9 (11/1). Beyond the Abstract: Embodiment and Emotions

Lakoff, G. (2014). Mapping the brain's metaphor circuitry: Metaphorical thought in everyday reason. *Frontiers in Human Neuroscience*, 8(958), 1-14.

Lindquist, K. A., Barrett, L. F., Bliss-Moreau, E., & Russell, J. A. (2006). Language and the perception of emotion. *Emotion (Washington, D.C.)*, 6(1), 125-138. <https://doi.org/10.1037/1528-3542.6.1.125>

Lindquist, K. A., Satpute, A. B., & Gendron, M. (2015). Does Language Do More Than Communicate Emotion? *Current Directions in Psychological Science*, 24(2), 99–108. <http://www.jstor.org/stable/44318837>

Week 10 (11/8). Political Framings: Analyzing Propaganda and Climate Change Language

Isacoff, N.M. (2022). The psycholinguistics of propaganda: Mechanisms of subjugation and how to challenge them. *East European Journal of Psycholinguistics*, 9(2), DOI: 10.29038/eejpl.2022.9.2.isa.

Feldman, L., & Sol, H. P. (2021). Upping the ante? the effects of “emergency” and “crisis” framing in climate change news. *Climatic Change*, 169(1-2) doi:<https://doi.org/10.1007/s10584-021-03219-5>

Week 11 (11/15). Language & Technology: Evolution of Human and Artificial Language

Houghton K.J, Upadhyay, S.S.N., & Klin, C.M. (2018). Punctuation in text messages may convey abruptness. *Computers in Human Behavior*, (80), 112-121.

Marengo, D., Giannotta, F., & Settanni, M. (2017). Assessing personality using emoji: An exploratory study. *Personality and Individual Differences*, 112, 74-78, <https://doi.org/10.1016/j.paid.2017.02.037>

Cai, Z.G., Haslett, D.A., Duan, X, Wang, S., & Pickering, M.J. (2023). Does ChatGPT Resemble Humans in Language Use? *arXiv:2303.08014*

No Class 11/22 (Thanksgiving Break)

Weeks 12 and 13. Flash Talks

Student sharing of independent projects

Additional Information

Academic integrity. As a member of the academic community, one of your responsibilities is to uphold principles of honesty and integrity. This means that you can only present your own work on assignments and presentations — plagiarism is strictly prohibited, as is presenting work as your own when it was done by someone else. Doing so compromises your academic integrity and potentially your academic standing. If you are falling behind, don’t understand the material, or are not confident about your writing or presentation, talk to me as soon as possible instead of taking measures that go against principles of academic integrity. [Columbia’s Honor Code in Columbia’s Guide to Academic Integrity (<http://www.college.columbia.edu/academics/academicintegrity>)].

Attendance. Class participation is the foundation of any seminar course, including this one. If you need to miss a class, please notify me as soon as possible. Of course, if you are sick (even with a cold) you should stay home, but staying in touch with me about this will be very helpful. You will still be responsible for the work due in a class you miss, e.g., reading response and interim project deadlines. Please let me know if you have any questions about this policy.

Late assignments. Late reading responses will get a maximum of 3 out of 5 points and cannot be turned in after we have discussed them in class. For your independent study: In my experience,

when students do not hand this in on time, it is because they are overwhelmed with the prospect of working on an independent study. Remember that I'm available to discuss your project with you throughout the semester. Be in touch with me as you're working on it, and I'd be glad to talk through ideas with you.

Students with disabilities. If you are a student with special needs and require accommodation, meet me before the first class to discuss your needs. You must also contact Disability Services before the first class to register for specific accommodations (<https://health.columbia.edu/disability-services>).