



LING1720: Language, Cognition, and Culture

TR 10:15 – 11:44am, Spring 2024, Williams Hall 205

Dr. Tyler Knowlton (tzknowlt@upenn.edu)

Course description

Does language shape cognition? Do the details of our native language(s) determine how we perceive the world? Can learning language give us access to new concepts? Or does language merely reflect thought and allow us to trigger independently established concepts in the moment? In this course, we'll explore the question of whether and to what extent the language one speaks affects the way one thinks. We'll do so through a variety of case studies, including color categorization, spatial frames of reference, navigation, theory of mind, and number. The course will incorporate cross-linguistic, cross-cultural, and developmental perspectives and will involve reading papers from authors in linguistics, psychology, philosophy, and neuroscience.

Course objectives

After taking this course, students should be able to:

- Understand and critically evaluate claims of linguistic relativity (which are ubiquitous both in cognitive science and the popular press)
- Clearly articulate research findings and broader implications in writing and oral presentations
- Have something cool to talk about over Thanksgiving dinner
- Demonstrate knowledge of the basic principles of experimental design and behavioral research methods in cognitive science

Resources

You do not need to buy any books for this class. Readings (mostly journal articles; some book chapters) will be posted on the course canvas page (under “files/readings”).

Responsibilities & expectations

Readings and discussion posts (20% of course grade)

A reading will be assigned before each class (and will be made available on canvas). Readings should be done before the day indicated on the class schedule and you should come to class prepared to discuss what you read. The reading load has been intentionally kept light. Doing the reading is extremely important as the class is almost entirely discussion-based. Plus, if you don't read, you'll miss out on interesting discussions and debates!

Students will submit canvas discussion posts for selected readings by 6am on the day we discuss that reading in class (e.g., the reading response for a paper to be discussed on Tuesday morning will be handed in by 6:00am on Tuesday; this is so I have time to look them over before class). Late reading responses will generally not be accepted in order to ensure that everyone has given sufficient thought to the day's reading to be able to contribute to high-quality discussion. Most readings will have an associated graded discussion post.

Discussion posts don't need to be long (around 200-400 words is fine). The goal of these assignments is to probe your understandings of the readings and encourage you to form an opinion about the material before class. You should start with a few sentences summarizing the paper and answering the following questions:

- 1) What is the local problem/question this paper is addressing?
- 2) What is its main finding or contribution?
- 3) How does it purport change our view of the broader course questions?

Then, and more importantly, you should articulate whether you agree with the paper's conclusion and why. If you're convinced, what convinced you? If you find yourself skeptical, what are your reservations? The goal is that everyone will come to class with some opinion about the conclusions in the paper. Your post can also include any confusions or questions you had while reading or things that you'd want to discuss in class. Each graded post will be worth 1% (and I'll post a discussion thread on days where there isn't a graded post in case anyone wants to post their thoughts about that day's paper there).

In-class presentation of papers (15% of course grade)

You will be asked to lead the class discussion of a paper one time during the semester. Available dates and their corresponding topics are flagged in the tentative schedule below. You can sign up for a date on canvas (under assignments/class presentations/paper presentation). For these discussions, you should prepare slides that summarize the main point of the paper and raise points for discussion. You will receive guidance about how to prepare such a presentation during the semester.

Final paper (30% of course grade)

The final paper is a chance to apply what you've learned during the semester to a specific problem that you find particularly interesting. It should be 5-8 pages (single-spaced) and can take one of several forms, including:

- A critical review of the literature in a particular content area not discussed during the semester
- An experimental proposal, either a follow-up experiment relating to a case study that we discussed in class or a totally new experiment about a novel content area (you would not be expected to fully design the stimuli or collect any data in either case)
- A discussion of a linguistic phenomenon that would lend itself to interesting claims about the relationship between language and thought

During the semester, you will be asked to submit a brief (~500 words) project proposal (due date noted on the tentative schedule provided below) so that I can provide feedback. Feel free to also submit an annotated bibliography and outline, for further feedback, any time before submitting your final draft. I'm also happy to meet about project ideas!

In-class presentation of final project pitch (15% of course grade)

Ideas for the final paper (see above) will be presented to the class during the last few course meetings.

Participation (20% of course grade)

This class will be almost entirely discussion-based. For this reason, students are expected to actively participate. Spend time thinking about the readings and come to class prepared to share your thoughts. That said, you should not feel that you need to be absolutely confident in an idea to present it to others! The point of the class is to discuss controversies and open issues in the field. So don't hesitate to speak up when you find something unclear, when you see a connection between a particular topic and other material we've discussed in this course, and when you find yourself unconvinced by the logic of an argument. All discussion is of course expected to be respectful of the different identities, backgrounds, and perspectives of your fellow students.

Participation grading scale (out of 20 points)

Consistently engaged and insightful	20
Consistently engaged and occasionally insightful	18
Occasionally engaged	16
Silent but obviously paying attention	10
Often not paying attention	5
Rude or dismissive behavior	0

Grades

All assessment scores will be posted on the course canvas page. If you have questions about how something was scored, don't hesitate to ask me about it. The breakdown is as follows:

Assignment	Weight
Participation	20%
Discussion posts (1% each x 20 posts)	20%
Class presentations	30%
• Paper presentation	15%
• Project pitch	15%
Final paper	30%
• Proposal	10%
• Final draft	20%
Total	100%

Final letter grades will be assigned based on the scale below. Numerical grades will be rounded to the nearest integer before being converted into letters (e.g., 89.5% \Rightarrow 90% \Rightarrow A-; 89.49% \Rightarrow 89% \Rightarrow B+). Final grades will not be curved.

Final Grade Cutoffs									
A+	98.00%	B+	87.00%	C+	77.00%	D+	67.00%		
A	93.00%	B	83.00%	C	73.00%	D	63.00%	F	<60.0%
A-	90.00%	B-	80.00%	C-	70.00%	D-	60.00%		

Course policies

Attendance

You are expected to attend every class. If you plan to miss class for any reason, please let me know in advance. I am happy to accommodate your needs – religious, medical, family, or any other situation that may prevent you from attending – but be sure to contact me about it as soon as possible.

Late work

In general, late reading responses (discussion posts submitted after 6am on the day that the reading is to be discussed) will not be accepted, as I want to ensure that everyone is well-prepared for the in-class discussion. I am willing to make exceptions for the other assignments, if you contact me ahead of time.

Group work

Feel free to discuss your ideas with your classmates, in and outside of class, but anything you hand in (including discussion posts) must be your own writing. The same applies to the use of generative AI tools (e.g., ChatGPT).

Electronic devices

You may use your laptop or a tablet to take notes during class (I strongly recommend taking notes on important points, but don't try to transcribe the discussion) and/or to refer back to the reading. Please refrain from checking your email or social media during class, as this is distracting to you and your classmates. Likewise, please refrain from using your cellphone during class, except in the case of a potential emergency.

Experiments

There is no experimental requirement or extra credit option for this class.

Course schedule [updated 3.7.24]

Date	Topic	Reading	Assignments
R 1/18	Course overview		
T 1/23	Phonetic categories & auditory perception	Werker (1995) <i>Exploring developmental changes in cross-language speech perception</i>	
R 1/25	Color words & color perception	Winawer, Witthoft, Frank, Wu, Wade, & Boroditsky (2007) <i>Russian blues reveal effects of language on color discrimination</i>	Discussion post 1
T 1/30	Spatial relations: Frames of reference	Majid, Bowerman, Kita, Haun, & Levinson (2004) <i>Can language restructure cognition? The case for space</i>	Discussion post 2
R 2/1	Spatial relations: Frames of reference	Li, Abarbanell, Gleitman, & Papafragou (2011) <i>Spatial reasoning in Tenejapan Mayans</i>	Discussion post 3
T 2/6	Spatial relations: TIGHT-FIT / LOOSE-FIT	Bowerman & Choi (2003) <i>Space under construction: language-specific spatial categorization in first language acquisition</i>	Discussion post 4
R 2/8	Spatial relations: TIGHT-FIT / LOOSE-FIT	Hespos & Spelke (2004) <i>Conceptual precursors to language</i>	Discussion post 5
T 2/13	Spatial reasoning: Navigation	Hermer-Vazquez, Spelke, & Katsnelson (1999) <i>Sources of flexibility in human cognition: dual-task studies of space and language</i>	Discussion post 6
R 2/15	Spatial reasoning: Navigation	Ratliff & Newcombe (2008) <i>Is language necessary for human spatial reorientation? Reconsidering evidence from dual task paradigms</i>	Discussion post 7

T 2/20	Theory of mind	de Villiers & de Villiers (2003) <i>Language for Thought: coming to understand false beliefs</i>	Discussion post 8
R 2/22	Theory of mind	Lewis, Hacquard, & Lidz (2016) <i>“Think” pragmatically: children’s interpretation of belief reports</i>	Discussion post 9
T 2/27	Manner of motion [student presentation]	Slobin (1996) <i>From “thought and language” to “thinking for speaking”</i>	Discussion post 10
R 2/29	Manner of motion [student presentation]	Papafragou, Massey, & Gleitman (2002) <i>Shake, rattle, ‘n’ roll: The representation of motion in language and cognition</i>	Discussion post 11
3/2 to 3/10	SPRING BREAK		
T 3/12	Number: Background psychology	Feigenson, Dehaene, & Spelke (2004) <i>Core systems of number</i>	
R 3/14	Number: Bootstrapping natural number	Carey (2009) <i>Beyond core cognition: natural number</i>	Discussion post 12
F 3/15			Project proposal due
T 3/19	Number: A cultural invention? [student presentation]	Frank, Everett, Fedorenko, & Gibson (2008) <i>Number as a cognitive technology: evidence from Pirahã language and cognition</i>	Discussion post 13
R 3/21	Number: The view from homesign [student presentation]	Spaepen, Coppola, Spelke, Carey, & Goldin-Meadow (2011) <i>Number without a language model</i>	Discussion post 14
T 3/26	Objects & Substances [student presentation]	Soja, Carey, & Spelke (1991) <i>Ontological categories guide young children’s inductions of word meaning: object terms and substance terms</i>	Discussion post 15
R 3/28	Objects & Substances [student presentation]	Imai & Gentner (1997) <i>A cross-linguistic study of early word meaning: universal ontology and linguistic influence</i>	Discussion post 16
T 4/2	Objects & substances [student presentation]	Li, Dunham, & Carey (2009) <i>Of substance: The nature of language effects on entity construal</i>	Discussion post 17
R 4/4	Law & (word) Order [student presentation]	Fausey & Boroditsky (2010) <i>Subtle linguistic cues influence perceived blame and financial liability</i>	Discussion post 18

T 4/9	Time [student presentation]	Boroditsky, Fuhrman, & McCormick (2011) <i>Do English and Mandarin speakers think about time differently?</i>	Discussion post 19
R 4/11	Smell [student presentation]	Majid & Burenhult (2014) <i>Odors are expressible in language, as long as you speak the right language.</i>	Discussion post 20
T 4/16	Labeling & categorization	Perszyk & Waxman (2018) <i>Linking language and cognition in infancy</i>	
R 4/18	Social/political implications of language-on-thought	Skerrett (2010) <i>Can the Sapir-Whorf hypothesis save the planet? Lessons from cross-cultural psychology for critical language policy</i>	
T 4/23		Final project presentations	
R 4/25		Final project presentations	
M 4/30		Final project presentations	
5/14			Final paper due at midnight EST