

# Introduction to Cognitive Psychology

PSY 102, Term I, Summer 2019

MTuWThF, 11:00 a.m. – 12:15 p.m., Allen 226

May 15<sup>th</sup> to June 24<sup>th</sup>

<http://cogpsychduke2019.github.io/>

## Course Instructor:

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Office Hours: By appointment, LSRC B241

## What is this course about?

How do psychologists today study the mind and how it works? This is a course for anyone interested in what the mind is, how contemporary researchers study the mind, and what researchers have discovered about how the mind works.

In our first module, we will examine what constitutes engaging story-telling and scientific knowledge (Science Communication), why some methods are better for investigating specific research questions than others as well as current methodological issues within psychology (Cognitive Methods), and how you construct the world you see and feel around you (Perception). We will begin to critically consume academic journal articles and science communication pieces.

Next we will consider how our brain prioritizes and processes information in a world that bombards our senses (Attention), in addition to how we feel and construct emotions (Emotion) and how these constructs shape and are shaped by perception. The third module will consider how we communicate (Language), remember information over varying durations (Working Memory), conjure possible and impossible scenarios as well as past events (LTM: Structure, Processes & Mechanisms). We will evaluate how to convey these core cognitive psychology concepts to a broad audience with science communication pieces.

We will then apply our theories and skills to understanding more complex feats of the human mind, such as how we construct our own life stories (Autobiographical Memory) and make decisions (Decision-Making, Motivated Reasoning). In our final modules, we will think about how we take shortcuts when making choices (Cognitive Biases), how our memory and mind can be tricked and shaped by external events (False Memory, Misinformation, Collective Memory), how our mind processes information (Imagery) and solves problems (Creativity & Problem-Solving), and what factors promote better learning (Education, Learning & Motivation).

The first half of the course is primarily focused on basic science concepts within cognitive psychology, while the second half considers how these concepts are interlinked and directly applicable to other aspects of life (e.g., policy, education, history). Through weekly quizzes and several writing assignments, you will have many opportunities to reflect on course material and receive prompt feedback on your learning. The bulk of your grade will be determined by (1) your ability to identify and apply rigorous concepts in cognitive psychology, as assessed with class discussion, reading worksheets, and quizzes, and (2) the clarity and ingenuity with which you can

explain scientific findings to a broad and academic audience, as assessed by your science communication and summary pieces.

The only prerequisite for this course is Introductory Psychology (or some equivalent). Because our time is abbreviated during Summer Term, this course is intensive in its pace through material. You should expect to spend between 2 and 4 hours daily outside of meeting time on course materials.

### **What are the goals of this course?**

The first goal of this course is for you, students, to develop skills as critical consumers of empirical findings within cognitive psychology through academic and news readings as well as facilitated discussions. You will learn to evaluate the strengths and weaknesses of various research methods, and to judge whether the conclusions drawn from using particular methods and obtaining specific findings are justified. You will also learn to identify common behavioral results and paradigms within the field.

The second goal is to develop your skills as communicators of empirical research within cognitive psychology. Through science communication and summary pieces, peer feedback, and reading responses to empirical articles, you will hone your ability to communicate effectively about cognitive psychology and learn how to synthesize academic findings.

The third goal is to apply your skills as critical consumers of cognitive psychology to current issues in psychology and neuroscience, such as open science, good pedagogical practices, and diversity. For example, you will write a Wikipedia page for a current female or underrepresented cognitive scientist, including their biography and three of their most cited findings, to promote a more visibly inclusive face of cognitive psychology (e.g., [project first started by Jess Wade](#)). At the end of the course, the instructor will email the scientist who you profiled, with you CC'd and your profile attached, so that you can continue to belong to the cognitive psychology community.

### **What will I do in class, and how will I learn?**

To achieve our course goals, there are five required elements of this course: (1) class meetings, (2) readings, (3) weekly quizzes, (4) science communication pieces, and (5) a science summary piece.

#### **1. Class Meetings**

Please arrive no later than 11:00 am and stay until 12:15 pm. There are many excellent reasons why you may need to excuse yourself from a class meeting, both personal and professional. However, in this time-constrained summer course, our time together is the most precious resource we have. Even a single absence from the course will significantly affect your ability to be successful. Thus, if you anticipate attending class regularly to be a difficulty for you, I ask that you do not take this course and consider completing it at another time. I would be happy to help you brainstorm alternative strategies to learn more about the wonderful world of psychological research.

To take this course, you must plan to be able to attend each class session in full. While attendance is required, my expectations for your presence in class are much higher. In addition to your physical presence in class, you should prepare for class by reading and reflecting on assigned material; engaging in small group discussions; helping peers understand tricky concepts; significantly contributing to class discussions; and more.

Each class, you will evaluate your own contributions to the discussion by scoring yourself on a

discussion rubric that I will email. I will factor these self-evaluations into a participation score for each class. At the end of the semester, your two worst scores will be dropped before I calculate your final Participation grade. Absences will be counted as a dropped score.

## **2. Readings**

We do not have a formal textbook for this course, although we will on occasion read a few chapters. Mostly, we will explore readings and media drawn from many sources, including podcasts and articles from the popular media and primary scientific literature. These are posted on our website.

## **3. Weekly Quizzes**

We will have six weekly quizzes consisting of multiple-choice and short answer questions. These quizzes are designed to review the material and give you ongoing feedback about how well you are learning in the course. Your two lowest quiz scores will be dropped from your grade. You will also have the opportunity to correct your mistakes and receive half credit on answers you got wrong.

## **4. Science Communication Pieces**

The science communication pieces (Duke research blog post, science communication pitch, Wikipedia project) are designed to help you learn how to discuss what you are learning with friends and loved ones, and to consume media summaries of psychological research with a critical eye. You will apply what you are learning from your weekly readings into these pieces, which are also aimed towards making you feel a part of the Duke and general cognitive psychology research communities. Along the way, you will complete several mini assignments designed to guide you through the processing of finishing these projects. Detailed guidelines are available on our course website, and we will discuss grading rubrics in class.

## **5. Science Summary Piece**

Finally, you will apply what you are learning from your weekly readings into a piece summarizing an article for academic audience. Taken together, the science communication and summary pieces will help you think more critically about the role of the audience in discussing science findings broadly.

## **How will you be graded?**

This course will be graded on a 100-point scale using standard cutoffs for letter grades (A,B,C,D,NP with +/-). Detailed grading rubrics will be provided on Sakai.

Your final course grade will be determined in the following way:

- o Participation: 20%
- o Quizzes: 15%
- o Science communication pitch: 5%
- o Duke research blog post: 20%
- o Science summary piece: 20%
- o Wikipedia project: 20%

## **What are the class policies?**

### **Laptops and Classroom Technology**

We will have the opportunity to learn about potential influences of technology on our psychology. For this reason, laptops are only allowed if you must take notes or cannot print the readings that we will discuss in class. Outside of specific class activities, cell phones should be dark and silent during our class meetings. If you are expecting an important message during class that requires you to check

your phone, speak to me. Feel free to step out for brief breaks to check texts, emails, etc.

To complete class assignments, you will need access to a personal computing device, such as a laptop, for accessing class readings, listening to podcasts, and completing and submitting class assignments. You can find available machines at the Duke University Libraries (hours: <https://library.duke.edu/about/hours>). I am committed to providing an equitable learning environment. If access to technology is a hardship for you, please reach out and you will be supported confidentially.

### **Missed class or work**

If you are unable to attend class or meet an assignment deadline, please contact me as soon as possible, but no later than 48 hours, to discuss your missed work. More than two absences will require a conversation with me to discuss your progress and continued ability to succeed in the course. We may discuss options such as resources to support missed content, revised timelines for turning in assignments, or withdrawing from the course so you can learn this content at another time. You should seek support from your academic dean if you are experiencing long-term illnesses or personal emergencies. See [Trinity's illness policies](#) for details.

### **Commitment to Diversity and Equity**

Adapted from <https://www.brown.edu/sheridan/teaching-learning-resources/inclusive-teaching/statements> by Brenda Yang

Our classroom does not exist in a vacuum: historical and systemic forces powerfully shape our beliefs, interactions with each other, and even the content of the course. It is my intent that students from diverse backgrounds and perspectives be served by this course, that students' needs be addressed both in and out of class, and that diversity be viewed as a resource, strength, and benefit. It is my goal to present materials and activities celebratory of diversity in multiple forms: gender, sexuality, ethnicity, race, culture, disability, age, veteran status, and socioeconomic status. I will encourage us as a community of learners to operate from a place of cultural humility and to assume best intent. Your suggestions are appreciated and encouraged.

### **Changes to the syllabus**

I may make minor changes to the syllabus, such as eliminating or changing a reading assignment, or adjusting a deadline. Such changes will be made in consultation with the class to ensure that sufficient notice is given and that changes are fair and favorable.

### **Academic accommodations**

I am committed to ensuring that students have every opportunity to succeed in our course. Students who have a disability, which may necessitate an academic accommodation or the use of auxiliary aids and services in a class, should initiate the request with the Student Disability Access Office (SDAO). The SDAO will evaluate the request with required documentation, recommend appropriate accommodations, and prepare a verification letter dated in the current academic term in which the request is being made. Please contact the SDAO as soon as possible.

### **Academic integrity**

Students are expected to adhere to [Duke's Community Standard](#) and are responsible for understanding the University rules regarding academic integrity. In brief, conduct prohibited includes all forms of academic dishonesty: e.g., unpermitted collaboration, representing another's work as one's own, or helping or allowing someone else to do any of these things. The *minimum* penalty for academic dishonesty is receiving zero credit on the assignment in question.

Week	Day	Date, Day #	Topic	Feedback	Readings Due	Assignments Due
1	W	May 15, #1	Science Communication	--	--	Get to Know You Qualtrics survey
1	Th	May 16, #2	Cognitive Methods Chpt 2, Gazzaniga	--	Chapter on Methodology from Gazzaniga Ted Talk: Bad Science Lab Manual, Darling (2017)	--
1	F	May 17, #3	Perception, Chpt 3, Goldstein	--	<a href="#">Gruters et al. (2018)</a> Science News: Yong (2018), Dean (2018)	--
2	M	May 20, #4	Attention Chpt 4, Goldstein Chpt 6/7, Purves	Worksheet feedback	Kang and Wheatley (2017), Middlebrooks et al. (2017) Podcast: Hidden Brain (Buying Attention)	Tweet summary of SciComm article Reading worksheet
2	Tu	May 21, #5	Attention Chpt 4, Goldstein Chpt 6/7, Purves	Quiz & Worksheet feedback	Wechsler et al. (2018), <a href="#">Seli et al. (2018)</a> Podcast: Hidden Brain (Life, Interrupted)	Headline of SciComm article Reading worksheet
2	W	May 22, #6	Emotion Chpt 10, Purves	Tweet & Worksheet feedback	<a href="#">Kragel et al. (2016)</a> , Siegel et al. (2018) Podcast: All in the Mind (The Creation of Emotions)	--
2	Th	May 23, #7	Emotion Chpt 10, Purves	Headline feedback	<a href="#">D'Arbeloff et al. (2018)</a> , MacCormack and Lindquist (2019) Science News: Chen (2018), Strickland (2016)	Opening paragraph SciComm article
2	F	May 24, #8	Review	--	Chapters 1 & 2 in Goldstein textbook	--
May 27, Memorial Day – no class, readings, or assignments						
3	Tu	May 28, #9	Language Chpt 11, Goldstein	Quiz	<a href="#">Bergelson and Aislin (2017)</a> , Yu et al. (2019) Science News: Gutman (2017)	Choose scientist for Wikipedia profile
3	W	May 29, #10	Working memory / cognitive training Chpt 5, Goldstein Chpt 13, Purves	Opening paragraph feedback	Kable et al. (2017), <a href="#">Yin et al. (2019)</a> Science News: Noë (2017), Duong (2019)	Science pitch of Scicomm piece
3	Th	May 30, #11	LTM: Structure Episodic Memory Chpt 6, Goldstein	--	Uitvlugt and Healey (2019) Ben-Yakov and Henson (2018) Scientist summary: Williams et al. (2019) Science News: Shute (2014)	--
3	F	May 31, #12	LTM: Processes & Mechanisms Chpt 7, Goldstein	Pitch feedback	Vaz et al. (2019), Chapter 7 in the Goldstein textbook, Scientist Summary: Gelinias (2019)	Multiple paragraph SciComm article
4	M	June 3, #13	Autobiographical Memory Chpt 8, Goldstein	Quiz	<a href="#">Rubin et al. (2019)</a> , <a href="#">Stanley et al. (2017)</a> Science News: Leung (2019) Podcast: All in the Mind (A Highly Superior Memory)	Opening paragraph of scientist audience summary article
4	Tu	June 4, #14	Knowledge / Categorization Chpt 9, Goldstein	Reverse outline of paragraphs	Chapter 9 in the Goldstein textbook	Midsemester Qualtrics survey
4	W	June 5, #15	Review	--	Scientist Summary: Frankland & Josselyn (2018), Ramirez (2018), Hutter & Wilson (2018) Podcast: Hidden Brain (Looking Back)	Biography of Wikipedia profile

4	Th	June 6, #16	Decision-making Chpt 13, Goldstein Chapt 14, Purves	Opening paragraph feedback	Pryor et al. (2019), <a href="#">Pearson et al. (2018)</a> Science News: Lombrozo (2014)	--
4	F	June 7, #17	Motivated Reasoning Chpt 13, Goldstein Chapt 14, Purves	Biography feedback Quiz	Pennycook and Rand (2018), <a href="#">Stanley et al. (2019)</a> Podcast: Hidden Brain (I'm Right, You're Wrong)	--
5	M	June 10, #18	Cognitive Biases Chpt 13, Goldstein Chapt 14, Purves	--	Levari et al. (2018), Klein and O'Brien (2018) Podcast: You Are Not So Smart (Active Information Avoidance) Oatmeal comic: Believe	Outline of Duke Research Blog
5	Tu	June 11, #19	False Memory Chpt 8, Goldstein	Outline feedback	Frenda et al. (2016), Zhu et al. (2019) TED Radio Hour: Can Eyewitnesses Create Memories?	Multiple paragraphs scientist article
5	W	June 12, #20	Misinformation Chpt 8, Goldstein	Multiple paragraph feedback	<a href="#">Fazio et al. (2015)</a> , Vosoughi et al. (2018) Play computer game <a href="https://ncase.me/crowds">ncase.me/crowds</a> Scientist summary: Lazer et al. (2018)	--
5	Th	June 13, #21	Review & Karl Bates visiting class	--	Grinberg et al. (2019), Lombrozo (2018)	Draft of Duke Research Blog
5	F	June 14, #22	Collective Memory Wertsch & Roediger (2008), <i>Memory</i>	Quiz	Maswood et al. (2019), Abel et al. (2019) Science News: Stix (2018), Cummins (2018)	Outline of research for Wikipedia profile
6	M	June 17, #23	Creativity & Problem- Solving Chpt 12, Goldstein	Draft feedback	Addis et al. (2016), Beaty et al. (2018) Podcast: Scott Barry Kaufman (Creativity with Constraints)	Outline scientist audience summary article
6	Tu	June 18, #24	Learning & Motivation Chpt 14, Purves Charpentier et al. (2018) & more	Outline feedback	Marvin and Shohamy (2016), Lydon-Staley et al. (2018) Scientist summaries: Levy (2018), DiMenichi & Tricomi (2016)	--
6	W	June 19, #25	Imagery Chpt 10, Goldstein	Outline feedback	Chapter 10 of Goldstein textbook Podcast: The Psych Files (How to Make Study Groups Effective)	Final Duke Research Blog
6	Th	June 20, #26	Education Chpt 7, Goldstein	--	Smith et al. (2016), <a href="#">Hard et al. (2019)</a> Scientist summary: Dunlosky et al. (2013)	Scientist summary article
6	F	June 21, #27	Education	Quiz	Ravizza et al. (2017), Sana et al. (2013) Science News: Lombrozo (2013), Supiano (2019)	--
7 (3)	M	June 24, #28	Overview	Review	None	Wikipedia profile

## Bibliography

### Science Communication (#1/28 of class):

- None

### Cognitive Methods (#2/28 of class):

- Gazzaniga, M., Ivy, R.B., Mangum, G.R. (2008). Methods of Cognitive Neuroscience. In: Cognitive Neuroscience: The Biology of the Mind, pp. 110-162. New York City: W.W. Norton & Company Third Edition.
- Goldacre, B. (2011). *Battling bad science*. Retrieved from [https://www.ted.com/talks/ben\\_goldacre\\_battling\\_bad\\_science](https://www.ted.com/talks/ben_goldacre_battling_bad_science)
- Lab manual (<https://cogpsychduke2019.github.io/files/LabManual.pdf>)
- Darling, N. (2017). Attracting WEIRD Samples. Retrieved from Psychology Today website: <https://www.psychologytoday.com/blog/thinking-about-kids/201710/attracting-weird-samples>

### Perception (#3/28 of class):

#### Article:

- Gruters, K. G., Murphy, D. L. K., Jenson, C. D., Smith, D. W., Shera, C. A., & Groh, J. M. (2018). The eardrums move when the eyes move: A multisensory effect on the mechanics of hearing. *Proceedings of the National Academy of Sciences*, 115(6), E1309–E1318. <https://doi.org/10.1073/pnas.1717948115>

#### Science News:

- Yong, E. (2018, January 23). When Your Eyes Move, So Do Your Eardrums. Retrieved from The Atlantic website: <https://www.theatlantic.com/science/archive/2018/01/when-your-eyes-move-so-do-your-eardrums/551237/>
- Dean, S. (2018, January 25). Our Eye Movements Also Move Eardrums, And Nobody Knows Why. Retrieved from <https://www.sciencealert.com/eye-movements-cause-vibrations-eardrums-hearing-weird-brain>

### Attention, Day 1 (#4/28 of class):

#### Articles

- Kang, O., & Wheatley, T. (2017). Pupil dilation patterns spontaneously synchronize across individuals during shared attention. *Journal of Experimental Psychology: General*, 146(4), 569–576. <https://doi.org/10.1037/xge0000271>
- Middlebrooks, C. D., Kerr, T., & Castel, A. D. (2017). Selectively Distracted: Divided Attention and Memory for Important Information. *Psychological Science*, 28(8), 1103–1115. <https://doi.org/10.1177/0956797617702502>

#### Podcast

- Vedantam, S., Shah, P., & Boyle, T. (2018). *Buying Attention | Hidden Brain* : NPR. Retrieved from <https://www.npr.org/2018/01/01/574073721/our-mental-space-under-attack>

### Attention, Day 2 (#5/28 of class):

#### Articles:

- Wechsler, K., Drescher, U., Janouch, C., Haeger, M., Voelcker-Rehage, C., & Bock, O. (2018). Multitasking During Simulated Car Driving: A Comparison



of Young and Older Persons. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.00910>

- Seli, P., Carriere, J. S. A., Wammes, J. D., Risko, E. F., Schacter, D. L., & Smilek, D. (2018). On the Clock: Evidence for the Rapid and Strategic Modulation of Mind Wandering. *Psychological Science*, 29(8), 1247–1256. <https://doi.org/10.1177/0956797618761039>

#### Podcast

- Vedantam, S. (2017). *Radio Replay: Life, Interrupted* | *Hidden Brain* : NPR. Retrieved from <https://www.npr.org/2017/12/01/567834281/radio-replay-life-interrupted>

### Emotion, Day 1 (#6/28 of class):

#### Articles

- Kragel, P. A., Knodt, A. R., Hariri, A. R., & LaBar, K. S. (2016). Decoding Spontaneous Emotional States in the Human Brain. *PLOS Biology*, 14(9), e2000106. <https://doi.org/10.1371/journal.pbio.2000106>
- Siegel, E. H., Wormwood, J. B., Quigley, K. S., & Barrett, L. F. (2018). Seeing What You Feel: Affect Drives Visual Perception of Structurally Neutral Faces. *Psychological Science*, 29(4), 496–503. <https://doi.org/10.1177/0956797617741718>

#### Podcast:

- Malcolm, L. (2017, July 5). *The creation of emotions* | *All in the Mind*. Retrieved from <https://www.abc.net.au/radionational/programs/allinthemind/the-creation-of-emotions/8576540>

### Emotion, Day 2 (#7/28 of class):

#### Articles

- d'Arbeloff, T. C., Kim, M. J., Knodt, A. R., Radtke, S. R., Brigidi, B. D., & Hariri, A. R. (2018). Microstructural integrity of a pathway connecting the prefrontal cortex and amygdala moderates the association between cognitive reappraisal and negative emotions. *Emotion*, 18(6), 912–915. <https://doi.org/10.1037/emo0000447>
- MacCormack, J. K., & Lindquist, K. A. (2019). Feeling hangry? When hunger is conceptualized as emotion. *Emotion*, 19(2), 301–319. <https://doi.org/10.1037/emo0000422>

#### Science News

- Chen, A. (2018). How Hunger Pangs Can Make Nice People “Hangry.” Retrieved from NPR.org website: <https://www.npr.org/sections/health-shots/2018/06/11/618395072/how-hunger-pangs-can-make-nice-people-hangry>
- Strickland, A. (2016). This is what emotions look like in your brain. Retrieved from CNN website: <https://www.cnn.com/2016/10/06/health/spontaneous-emotions-brain-scans/index.html>

### Review (#8/28 of class):

#### Textbook Chapter

- Chapter 1 and Chapter 2 from the 4th edition of Bruce Goldstein's Cognitive Psychology textbook <https://www.cengage.com/c/cognitive-psychology-connecting-mind-research-and-everyday-experience-4e-goldstein/9781285763880>



## Language (#9/28 of class):

### Articles

- Bergelson, E., & Aslin, R. N. (2017). Nature and origins of the lexicon in 6-mo-olds. *Proceedings of the National Academy of Sciences*, 114(49), 12916–12921. <https://doi.org/10.1073/pnas.1712966114>
- Yu, C., Suanda, S. H., & Smith, L. B. (2019). Infant sustained attention but not joint attention to objects at 9 months predicts vocabulary at 12 and 15 months. *Developmental Science*, 22(1), e12735. <https://doi.org/10.1111/desc.12735>

### Science news:

- Gutman, R. (2017, November 20). The Connected Vocabularies of Six-Month-Olds. Retrieved from The Atlantic website: <https://www.theatlantic.com/science/archive/2017/11/babies-language-vocabularies/546320/>
- Hayakawa, S., & Marian, V. (2019). How Language Shapes the Brain. Retrieved from Scientific American Blog Network website: <https://blogs.scientificamerican.com/observations/how-language-shapes-the-brain/>

## Working Memory / Cognitive Training (#10/28 of class):

### Articles

- Kable, J. W., Caulfield, M. K., Falcone, M., McConnell, M., Bernardo, L., Parthasarathi, T., ... Lerman, C. (2017). No Effect of Commercial Cognitive Training on Brain Activity, Choice Behavior, or Cognitive Performance. *Journal of Neuroscience*, 37(31), 7390–7402. <https://doi.org/10.1523/JNEUROSCI.2832-16.2017>
- Yin, S., Sui, J., Chiu, Y.-C., Chen, A., & Egner, T. (2019). Automatic Prioritization of Self-Referential Stimuli in Working Memory. *Psychological Science*, 30(3), 415–423. <https://doi.org/10.1177/0956797618818483>

### Science News

- Noe, A. (2017). More Bad News For Brain-Training Games. Retrieved from NPR.org website: <https://www.npr.org/sections/13.7/2017/07/14/536759455/more-bad-news-for-brain-training-games>
- Duong, Y. (2019). It's Not Your Fault -- Your Brain is Self-Centered. Retrieved from <https://today.duke.edu/2019/03/its-not-your-fault-your-brain-self-centered>

## LTM Structure (Episodic Memory) (#11/28 of class):

### Articles

- Uitylugt, M. G., & Healey, M. K. (2019). Temporal Proximity Links Unrelated News Events in Memory. *Psychological Science*, 30(1), 92–104. <https://doi.org/10.1177/0956797618808474>
- Ben-Yakov, A., & Henson, R. N. (2018). The Hippocampal Film Editor: Sensitivity and Specificity to Event Boundaries in Continuous Experience. *Journal of Neuroscience*, 38(47), 10057–10068. <https://doi.org/10.1523/JNEUROSCI.0524-18.2018>

### Scientist Summary:

- Williams, A. N., Postans, M., & Hodgetts, C. J. (2019). How the Human Brain Segments Continuous Experience. *Journal of Neuroscience*, 39(17), 3172–3174. <https://doi.org/10.1523/JNEUROSCI.3041-18.2019>

### Science News

- Shute, N. (2014). Our Brains Rewrite Our Memories, Putting Present In The Past. Retrieved from NPR.org website: <https://www.npr.org/sections/health-shots/2014/02/04/271527934/our-brains-rewrite-our-memories-putting-present-in-the-past>

## **LTM Processes & Mechanisms (#12/28 of class):**

### *Articles*

- Chapter 7 from the 4th edition of Bruce Goldstein's Cognitive Psychology textbook <https://www.cengage.com/c/cognitive-psychology-connecting-mind-research-and-everyday-experience-4e-goldstein/9781285763880>
- Vaz, A. P., Inati, S. K., Brunel, N., & Zaghoul, K. A. (2019). Coupled ripple oscillations between the medial temporal lobe and neocortex retrieve human memory. *Science*, 363(6430), 975–978. <https://doi.org/10.1126/science.aau8956>

### *Scientist Summary*

- Gelinas, J. (2019). Ripples for memory retrieval in humans. *Science*, 363(6430), 927–928. <https://doi.org/10.1126/science.aaw6767>

## **Autobiographical Memory (#13/28 of class):**

### *Articles*

- Rubin, D. C., Deffler, S. A., & Umanath, S. (2019). Scenes enable a sense of reliving: Implications for autobiographical memory. *Cognition*, 183, 44–56. <https://doi.org/10.1016/j.cognition.2018.10.024>
- Stanley, M. L., Parikh, N., Stewart, G. W., & De Brigard, F. (2017). Emotional intensity in episodic autobiographical memory and counterfactual thinking. *Consciousness and Cognition*, 48, 283–291. <https://doi.org/10.1016/j.concog.2016.12.013>

### *Science News*

- Leung, W. (2019). Record and replay: How a Canadian-made app is aiming to help Alzheimer's patients improve their daily lives - The Globe and Mail. Retrieved from <https://www.theglobeandmail.com/canada/article-toronto-teams-hippocamera-a-high-tech-memory-aid-for-alzheimers/>

### *Podcast*

- Malcolm, L. (2019). *A highly superior memory* | *All in the Mind*. Retrieved from <https://www.abc.net.au/radionational/programs/allinthemind/a-highly-superior-memory/11021088>

## **Knowledge / Categorization (#14/28 of class):**

### *Textbook Chapter:*

- Chapter 9 from the 4th edition of Bruce Goldstein's Cognitive Psychology textbook <https://www.cengage.com/c/cognitive-psychology-connecting-mind-research-and-everyday-experience-4e-goldstein/9781285763880>

## **Review Day (#15/28 of class):**

### *Science Summaries*

- Hutter, S. A., & Wilson, A. I. (2018). A Novel Role for the Hippocampus in Category Learning. *Journal of Neuroscience*, 38(31), 6803–6805. <https://doi.org/10.1523/JNEUROSCI.1085-18.2018>

- Frankland, P. W., & Josselyn, S. A. (2018). Facing your fears. *Science*, 360(6394), 1186–1187. <https://doi.org/10.1126/science.aau0035>
- Ramirez, S. (2018). Crystallizing a memory. *Science*, 360(6394), 1182–1183. <http://dx.doi.org.proxy.lib.duke.edu/10.1126/science.aau0043>

*Podcast:*

- Vedantam, S. (2018). *Looking Back | Hidden Brain* : NPR. Retrieved from <https://www.npr.org/2018/06/21/622298227/radio-replay-looking-back>

## Decision-making (#16/28 of class):

*Articles*

- Pryor, C., Perfors, A., & Howe, P. D. L. (2019). Even arbitrary norms influence moral decision-making. *Nature Human Behaviour*, 3(1), 57–62. <https://doi.org/10.1038/s41562-018-0489-y>
- Pearson, J. M., Law, J. R., Skene, J. A. G., Beskind, D. H., Vidmar, N., Ball, D. A., ... Skene, J. H. P. (2018). Modelling the effects of crime type and evidence on judgments about guilt. *Nature Human Behaviour*, 2(11), 856–866. <https://doi.org/10.1038/s41562-018-0451-z>

*Science News*

- Lombrozo, T. (2014). Blame Your Brain: The Fault Lies Somewhere Within. Retrieved from NPR.org website: <https://www.npr.org/sections/13.7/2014/06/16/322556750/blame-your-brain-the-fault-lies-somewhere-within>

## Motivated Reasoning (#17/28 of class):

*Articles*

- Pennycook, G., & Rand, D. G. (2018). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. *Cognition*. <https://doi.org/10.1016/j.cognition.2018.06.011>
- Stanley, M. L., Henne, P., Yang, B. W., & De Brigard, F. (2019). Resistance to Position Change, Motivated Reasoning, and Polarization. *Political Behavior*. <https://doi.org/10.1007/s11109-019-09526-z>

*Podcast*

- Vedantam, S., & Penman, M. (2017). *When It Comes To Politics and "Fake News," Facts Aren't Enough | Hidden Brain*: NPR. Retrieved from <https://www.npr.org/2017/12/25/572162132/enter-title>

## Cognitive Biases (#18/28 of class):

*Articles*

- Levari, D. E., Gilbert, D. T., Wilson, T. D., Sievers, B., Amodio, D. M., & Wheatley, T. (2018). Prevalence-induced concept change in human judgment. *Science*, 360(6396), 1465–1467. <https://doi.org/10.1126/science.aap8731>
- Klein, N., & O'Brien, E. (2018). People use less information than they think to make up their minds. *Proceedings of the National Academy of Sciences*, 115(52), 13222–13227. <https://doi.org/10.1073/pnas.1805327115>

*Podcast*

- McRaney, D. (2018, March 26). *YANSS 123 – Active Information Avoidance*. Retrieved from: <https://youarenotsosmart.com/2018/03/26/yanss-123-active-information-avoidance/>
- Inman, M. (2017). Believe. Retrieved from The Oatmeal website: <https://theoatmeal.com/comics/believe>

## False Memory (#19/28 of class):

### Articles

- Frenda, S. J., Berkowitz, S. R., Loftus, E. F., & Fenn, K. M. (2016). Sleep deprivation and false confessions. *Proceedings of the National Academy of Sciences*, 113(8), 2047–2050. <https://doi.org/10.1073/pnas.1521518113>
- Zhu, B., Chen, C., Shao, X., Liu, W., Ye, Z., Zhuang, L., ... Xue, G. (2019). Multiple interactive memory representations underlie the induction of false memory. *Proceedings of the National Academy of Sciences*, 116(9), 3466–3475. <https://doi.org/10.1073/pnas.1817925116>

### Ted talk (part of TED Radio Hour podcast):

- Fraser, S. (2013). *Can Eyewitnesses Create Memories?* Retrieved from <https://www.npr.org/2013/11/29/182671574/can-eyewitnesses-create-memories>

## Misinformation (#20/28 of class):

### Articles

- Fazio, L. K., Brashier, N. M., Payne, B. K., & Marsh, E. J. (2015). Knowledge does not protect against illusory truth. *Journal of Experimental Psychology: General*, 144(5), 993–1002. <https://doi.org/10.1037/xge0000098>
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146–1151. <https://doi.org/10.1126/science.aap9559>

### Science Summary

- Lazer, D. M. J., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., ... Zittrain, J. L. (2018). The science of fake news. *Science*, 359(6380), 1094–1096. <https://doi.org/10.1126/science.aao2998>

### Computer Game

- Social networks, wisdom of the crowds, groupthink, and idea propagation: <https://ncase.me/crowds/>

## Review Day (#21/28 of class):

### Articles

- Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 U.S. presidential election. *Science*, 363(6425), 374–378. <https://doi.org/10.1126/science.aau2706>

### Science News

- Lombrozo, T. (2018). The Psychology Of Fake News. Retrieved from NPR.org website: <https://www.npr.org/sections/13.7/2018/03/27/597263367/the-psychology-of-fake-news>

## Collective Memory (#22/28 of class):

### Articles

- Maswood, R., Rasmussen, A. S., & Rajaram, S. (2019). Collaborative remembering of emotional autobiographical memories: Implications for emotion regulation and collective memory. *Journal of Experimental Psychology: General*, 148(1), 65–79. <https://doi.org/10.1037/xge0000468>
- Abel, M., Umanath, S., Fairfield, B., Takahashi, M., Roediger, H. L., & Wertsch, J. V. (2019). Collective Memories across 11 Nations for World War II: Similarities and Differences Regarding the Most Important Events. *Journal of Applied Research in Memory and Cognition*.

#### Science News

- Stix, G. (2018). A Math Function Describes How Whole Societies Remember--and Forget. Retrieved from Scientific American website: <https://www.scientificamerican.com/article/a-math-function-describes-how-whole-societies-remember-and-forget/>
- Cummins, E. (2018). How long can an event hold humanity's attention? There's an equation for that. Retrieved from Popular Science website: <https://www.popsoci.com/how-collective-memories-decay>

#### Creativity and Problem-Solving (#23/28 of class):

##### Articles

- Addis, D. R., Pan, L., Musicaro, R., & Schacter, D. L. (2016). Divergent thinking and constructing episodic simulations. *Memory*, 24(1), 89–97. <https://doi.org/10.1080/09658211.2014.985591>
- Beaty, R. E., Kenett, Y. N., Christensen, A. P., Rosenberg, M. D., Benedek, M., Chen, Q., ... Silvia, P. J. (2018). Robust prediction of individual creative ability from brain functional connectivity. *Proceedings of the National Academy of Sciences*, 115(5), 1087–1092. <https://doi.org/10.1073/pnas.1713532115>

##### Podcast

- Kaufman, S. B. (2018). *Creativity from Constraints with Patricia Stokes*. Retrieved from: <https://scottbarrykaufman.com/podcast/creativity-constraints-patricia-stokes/>

#### Learning & Motivation (#24/28 of class):

##### Articles

- Marvin, C. B., & Shohamy, D. (2016). Curiosity and reward: Valence predicts choice and information prediction errors enhance learning. *Journal of Experimental Psychology: General*, 145(3), 266–272. <https://doi.org/10.1037/xge0000140>
- Lydon-Staley, D. M., Zurn, P., & Bassett, D. S. (2018). Inconsistent curiosity: Augmentation and blunting of curiosity in daily life and implications for well-being. *PsyArXiv*. <https://doi.org/10.31234/osf.io/2vf94>

##### Scientist summary

- Levy, I. (2018). Information utility in the human brain. *Proceedings of the National Academy of Sciences*, 115(31), 7846–7848. <https://doi.org/10.1073/pnas.1809865115>
- DiMenichi, B. C., & Tricomi, E. (2016). Are You Smarter Than a Teenager? Maybe Not When It Comes to Reinforcement Learning. *Neuron*, 92(1), 1–3. <https://doi.org/10.1016/j.neuron.2016.09.043>

#### Imagery (#25/28 of class):

##### Textbook Chapter

- Chapter 10 from the 4th edition of Bruce Goldstein's Cognitive Psychology textbook <https://www.cengage.com/c/cognitive-psychology-connecting-mind-research-and-everyday-experience-4e-goldstein/9781285763880>

##### Podcast

- Britt, M. (2016). *Ep 265: How To Make Study Groups Effective | The Psych Files*. Retrieved from <http://www.thepsychfiles.com/2016/10/ep-264-how-to-make-study-groups-effective/>

## Education, Day 1 (#26/28 of class):

### Articles

- Smith, A. M., Floerke, V. A., & Thomas, A. K. (2016). Retrieval practice protects memory against acute stress. *Science*, 354(6315), 1046–1048. <https://doi.org/10.1126/science.aah5067>
- Hard, B. M., Lovett, J. M., & Brady, S. T. (2019). What do students remember about introductory psychology, years later? *Scholarship of Teaching and Learning in Psychology*, 5(1), 61–74. <https://doi.org/10.1037/std0000136>

### Science News

- Dunlosky et al. (2013). What works, what doesn't. *Scientific American Mind*, 24(4), 47 – 53

## Education, Day 2 (#27/28 of class):

### Articles

- Ravizza, S.M., Uitvlugt, M.G., and Fenn, K.M. (2017). Logged in and zoned out: How laptop internet use relates to classroom learning. *Psychological Science*, 28, 171-180.
- Sana, F., Weston, T., & Cepeda, N. J. (2013). Laptop multitasking hinders classroom learning for both users and nearby peers. *Computers & Education*, 62, 24–31. <https://doi.org/10.1016/j.compedu.2012.10.003>

### Science News

- Supiano, B. (2019, February 6). Should You Allow Laptops in Class? Here's What the Latest Study Adds to That Debate. *The Chronicle of Higher Education*. Retrieved from <https://www.chronicle.com/article/Should-You-Allow-Laptops-in/245625>
- Lombrozo, T. (2013, August 19). Stop Multitasking! It's Distracting Me (And You). Retrieved from NPR.org website: <https://www.npr.org/sections/13.7/2013/08/19/213439794/stop-multitasking-it-s-for-other-people-s-good>