

YONG HOON CHUNG

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EDUCATION & PROFESSIONAL EXPERIENCE

Postdoctoral Researcher, Dartmouth College <i>Advisor: <u>Dr. Viola Störmer</u></i>	2026 - Present
PhD in Cognitive Neuroscience, Dartmouth College <i>Advisor: <u>Dr. Viola Störmer</u></i>	2020 - 2026
M.A. in Psychological and Brain Science, Dartmouth College	2023
Lab Manager, University of California San Diego <i>Advisor: <u>Dr. John Serences</u></i>	2019 - 2020
B.S. in Cognitive and Behavioral Neuroscience, University of California San Diego <i>Advisors: <u>Dr. Tim Brady</u>, <u>Dr. John Serences</u>, <u>Dr. Viola Störmer</u></i> <i>Grade: Cum Laude</i>	2016 - 2019

RESEARCH INTEREST

My research revolves around understanding the mechanisms of visual cognition. I am interested in topics such as visual working memory, visual attention, and object recognition. More specifically, my research focuses on how our prior semantic knowledge of objects interacts with our ability to actively hold visual information over a short duration of time. In my research I use various methods in psychophysics testing and neuroimaging techniques such as EEG.

PUBLICATION

- Strzelczyk, D. [...], **Chung, Y. H.**, Ortego, K. K., Störmer, V. S., [...], Langer, N. (2026). Contralateral delay activity as a marker of visual working memory capacity: A multi-site registered replication. *Cortex*, 201, 10-39.
- Chung, Y. H.**, Brady, T. F., & Störmer, V. S. (2026). Real-world objects scaffold feature working memory: Increased neural engagement when colors are remembered as part of meaningful objects. *Journal of Cognitive Neuroscience*, 38(6), 1171-1184.
- Chung, Y. H.**, Anaya-sosa, C. N., & Störmer, V. S. (2025). Testing Location Invariance of the Flashed Face Distortion Effect. *Perception*, 55(2), 159-177.
- Tao, S., **Chung, Y. H.**, Feng, Y., Casey, M., Störmer, V. S., & Murnane, E. L. (2025). MusicalPT: Augmenting physical rehabilitation by integrating music therapy with adaptive feedback and forward guidance to enhance exercise quality and engagement. *Proceedings of the ACM IMWUT*, 9(3), 1-32.
- Chung, Y. H.**, Williams, H. L., Brady, T. F., & Störmer, V. S. (2025). Limits of verbal labels in cognition: Category labels do not improve visual working memory performance for obfuscated objects. *Journal of Experimental Psychology: General*, 154(9), 2432-2446.
- Chung, Y. H.**, Shlipak, K. K., & Störmer, V. S. (2025). Fluid intelligence correlates with working memory capacity for both real-world objects and simple-feature stimuli. *Journal of Memory & Language*, 143, 104648.
- Chung, Y. H.**, Brady, T. F.*, & Störmer, V. S.* (2024b). Meaningfulness and familiarity expand visual working memory capacity. *Current Directions in Psychological Science*, 33(5), 275-282.
- Chung, Y. H.***, Tam, J.*, Wyble, B., & Störmer, V. S. (2024). Conceptual information of meaningful objects is stored incidentally. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 51(1), 82-96.

* These authors equally contributed to the work

- Chung, Y. H.,** Brady, T. F., & Störmer, V. S. (2024a). Sequential encoding aids working memory for meaningful objects' identities but not their colors. *Memory & Cognition*, 52, 2119-2131.
- Saleki, S.*, & **Chung, Y. H.*** (2023). Object from motion: moving beyond static images with object kinematograms. *The Journal of Neuroscience (Journal Club)*, 43(22), 3986-3988.
- Chung, Y. H.,** & Störmer, V. S. (2023). Unveiling the time course of visual stabilization through human electrophysiology. *iScience*, 26(6).
- Chung, Y. H.,** Brady, T. F., & Störmer, V. S. (2023). No Fixed Limit for Storing Simple Visual Features: Realistic Objects Provide an Efficient Scaffolding for Holding Features in Mind. *Psychological Science*, 34(7), 784-793.
- Chung, Y. H.,** Schurgin, M. W., & Brady, T. F. (2023). The role of motion in visual working memory for dynamic stimuli: More lagged but more precise representations of moving objects. *Attention Perception & Psychophysics*, 85, 1387-1397.

SUBMITTED/PREPRINTS

- Chung, Y. H.,** Jung, S. S., Brady, T. F., & Störmer, V. S. (2026). Semantic understanding underlies enhanced working memory for real-world objects. *PsyArXiv*

MANUSCRIPTS IN PREP

- Chung, Y. H.,** Shlipak, K. S., Brady, T. F., & Störmer, V. S. (*in prep*). Conceptual and perceptual distinctiveness support color working memory for objects.
- Williams, J. R., **Chung, Y. H.,** Keefe, M. J., & Störmer, V. S. (*in prep*). Characterizing spatial and temporal profile of auditory and visual cueing.
- Kidder, A., **Chung, Y. H.,** Kieseler, M., Stehr, D., Bujarski, K., Störmer, V. S., Kodiweera, C., & Duchaine, B. (*in prep*). Evidence for independent representations of mouths and face-centered reference frames from prosopometamorphopsia.

CONFERENCE PRESENTATIONS

- Musfeld, P., Tô-Lefebvre, A., **Chung, Y.,** & Oberauer, K. (2026, August 26-28). Understanding the Nature of the Meaningfulness Benefit in Visual Working Memory. Poster presented at the 11th *European Working Memory Symposium*.
- Shlipak, K.K., **Chung, Y.,** & Störmer, V.S. (2026, July 14-17). Visual Working Memory for Meaningful Stimuli Correlates with Fluid Intelligence. Blitz talk presented at the *Working Memory Symposium*.
- Musfeld, P., Tô-Lefebvre, A., **Chung, Y.,** & Oberauer, K. (2026, July 14-17). Understanding the Nature of the Meaningfulness Benefit in Visual Working Memory. Talk presented at the *Working Memory Symposium*.
- Chung, Y.,** Jung, S., Brady, T.F., & Störmer, V.S. (2026, May 15-19). Semantic understanding, not just coherent object structure, strengthens visual working memory. Talk presented at the *Annual Meeting of the Vision Sciences Society*.
- Chareunsouk, P.V., **Chung, Y.,** Störmer, V.S., & Chunharas, C. (2026, May 15-19). Limited encoding weakens category benefits, while longer encoding reveals strong semantic effects. Poster presented at the *Annual Meeting of the Vision Sciences Society*.
- Choe, E., Si, W., **Chung, Y.,** Störmer, V.S., Cavanagh, P., & Tse, P.U. (2026, May 15-19). Neural basis of perceived position in the frame effect. Poster presented at the *Annual Meeting of the Vision Sciences Society*.
- Engineer, A., **Chung, Y.,** & Williams, J.R. (2026, May 15-19). Rethinking visual working memory capacity: Proactive interference cannot account for real-world object advantage. Poster presented at the *Annual Meeting of the Vision Sciences Society*.
- Saito, J.S., **Chung, Y.,** Störmer, V.S., & Brady, T.F. (2026, May 15-19). Semantically-rich objects increase the

distinctiveness of low-level visual features. Talk presented at the *Annual Meeting of the Vision Sciences Society*.

Chung, Y., & Störmer, V.S. (2025, September 1-6). Meaningful and familiar stimuli support visual working memory for simple features. Symposium talk presented at the 25th *Conference of the European Society for Cognitive Psychology*.

Chung, Y., Jung, S., & Störmer, V.S. (2025, May 16-20). Perceptual and conceptual contributions of the real-world object benefit in visual working memory: Is looking like an object good enough to enhance memory? Poster presented at the *Annual Meeting of the Vision Science Society*.

Brady, T.F., **Chung, Y.,** Williams, J.R., & Störmer, V.S. (2025, May 16-20). Variable Stimuli and Tests Generate Variable Confidence: Challenging the ‘Recollection’ Signal in Working Memory. Poster presented at the *Annual Meeting of the Vision Sciences Society*.

Williams, J.R., **Chung, Y.,** Keefe, J., & Störmer, V.S. (2025, May 16-20). Sounds Like Vision: Mapping the spatial and temporal characteristics of crossmodal cueing. Poster presented at the *Annual Meeting of the Vision Sciences Society*.

Chung, Y., Law, S., Brady, T.F., & Störmer, V.S. (2025, March 29-April 1). Increased neural delay activity for simple features when they are remembered as part of real-world objects. Poster presented at the *Cognitive Neuroscience Society 2025 Annual Meeting*.

Chung, Y., Jung, S., & Störmer, V.S. (2024, November 21). Can you remember them better because they are familiar or because they look real?: Testing the contribution of “object-ness” in visual working memory using novel objects. Poster presented at the *OPAM Conference*.

Chung, Y., Shlipak, K.K., & Störmer, V.S. (2024, August 8-10). Improved Visual Working Memory for Meaningful Objects and Its Relation to Fluid Intelligence. Poster presented at the *American Psychological Association Convention*.

Chung, Y., Williams, R.J., & Störmer, V.S. (2024, July 9-12). Meaningful stimuli support working memory maintenance of simple features and guide attention effectively. Blitz talk presented at the *Working Memory Symposium*.

Chung, Y., Williams, R.J., & Störmer, V.S. (2024, May 17-22). Looking for the red shirt: Meaningful objects strengthen memory and attentional guidance. Poster presented at the *Annual Meeting of the Vision Sciences Society*.

Shlipak, K.K., **Chung, Y.,** & Störmer, V.S. (2024, May 17-22). Exploring the relationship between fluid intelligence and visual working memory for simple features vs. real-world objects. Poster presented at the *Annual Meeting of the Vision Sciences Society*.

Chung, Y., Brady, T.F., & Störmer, V.S. (2023, June 20-23). Sequential encoding helps working memory for meaningful object’s identity but not for their colors. Talk presented at the *Working Memory Symposium*.

Chung, Y., Tam, J., Wyble, B., & Störmer, V.S. (2023, May 19-24). Meaningful objects are privileged in working memory: better incidental memory of recognizable relative to unrecognizable objects. Poster presented at the *Annual Meeting of the Vision Sciences Society*.

Chung, Y., Wells, A., Chi, E., Störmer, V.S. (2022, November 17). Contribution of high-level and low-level adaptations in the Flashed Face Distortion Effect. Poster presented at the *OPAM Conference*.

Chung, Y., Stoermer, V.S. (2022, November 12-16). Uncovering the time course of perceiving spatial locations. Poster presented at the *Society for Neuroscience*.

Wray, A., McPherson, L., Fausey, J., Diabate, M., **Chung, Y.,** Ortego, K., Störmer, V.S. (2022, October 6-8) When music is language: electroencephalography of a musical speech surrogate. Poster presented at *Society of Neurobiology of Language*.

Chung, Y., Brady, T.F., Störmer, V.S. (2022, June 21-24). Active working memory capacity for simple features benefits from meaningful stimuli. Talk presented at the *Working Memory Symposium*.

Chung, Y., Brady, T.F., Störmer, V.S. (2022, May 13-18). Working Memory for Simple Features Benefits from Meaningful Stimuli. Poster presented at the *Annual Meeting of the Vision Sciences Society*.

- Chung, Y.,** Störmer, V.S. (2021, November 3-4). Neural correlates of Frame-Induced Position Shifts. Poster presented at the *virtual Object Perception, Attention, & Memory (OPAM) Conference*.
- Chung, Y.,** Brady, T.F., Störmer, V.S. (2021, June 1-4). Better memory for simple features when embedded in realistic objects. Talk presented at the *Virtual Working Memory Symposium*.
- Chung, Y.,** Keefe, J., Störmer, V.S. (2021, May 21-26). The spatial distribution of exogenous attention within and across hemifields. Poster presented at the Annual Meeting of the *Vision Sciences Society* (Virtual).
- Chung, Y.,** Schurgin, M.W., Brady, T.F. (2020, June 1-4). The role of object files in visual working memory: Facilitating integration over longer timescales for moving objects. Talk presented at the *Virtual Working Memory Symposium*.
- Chung, Y.,** Schurgin, M.W., Brady, T.F. (2020, May 19-24). The role of object files in visual working memory: Facilitating integration over longer timescales for moving objects. Poster presented at the Annual Meeting of the *Vision Sciences Society* (Virtual).

EXTERNAL INVITED TALKS

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| Semantic Knowledge Shapes Visual Working Memory Representations. Invited talk, presented to Ling Lab (BU) | 2026 |
| Semantic Understanding Underlies Enhanced Working Memory for Real-World Objects. Invited virtual talk, presented to Loaiza Cognitive Aging and Memory Lab (Colorado State U) | 2026 |
| From meaning to memory: how semantic knowledge can shape visual working memory. Invited virtual talk, presented to joint lab meeting at Columbia Dynamic Perception and Memory Lab & AlyLab (UC Berkeley). | 2025 |
| From meaning to memory: how semantic knowledge can shape visual working memory. Invited talk, presented to Laboratory of Brain and Cognition, National Institute of Health, Bethesda, MD, USA | 2025 |
| From meaning to memory: how semantic knowledge can shape visual working memory. Invited talk, presented to the Brain and Cognition Lab, Yale University, New Haven, CT, USA | 2025 |
| No Fixed Limit for Storing Simple Visual Features. Invited talk, presented to the Department of Psychology, Yonsei University, Seoul, South Korea | 2024 |
| Meaningful Stimuli Can Expand Feature Working Memory Capacity. Invited talk, presented to the Department of Psychology, Chungbuk National University, Cheongju, South Korea | 2024 |
| Feature working memory capacity can increase on meaningful stimuli. Presented at Vision Journal Club, Department of Psychology, UC San Diego, CA, USA | 2022 |

HONORS AND AWARDS

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| VSS National Eye Institute Early Career Scientist Travel Grant | 2026 |
| European Society for Cognitive Psychology (ESCoP) Travel Grant | 2025 |
| Neukom Travel Grant | 2025 |
| <ul style="list-style-type: none"> Received \$1,000 from Dartmouth Neukom Institute for Computational Science | |
| Object Perception, Attention, Memory (OPAM) Conference Professional Development Award | 2024 |
| American Psychological Association (APA) Early Graduate Student Researcher Award | 2023 |
| <ul style="list-style-type: none"> Received \$1,000 from APA | |
| Marie A. Center 1982 Award for Excellence in Research | 2023 |
| Dartmouth Library COPE Fund | 2023 |
| <ul style="list-style-type: none"> Received funding to cover Open Access publication fee | |
| Marie A. Center 1982 Award for Excellence in Teaching | 2022 |
| Dartmouth Psychological and Brain Sciences Travel Fund | 2022~2025 |
| Guarini Student Council Student Support Award, Dartmouth College | 2021&2022&2025 |
| <ul style="list-style-type: none"> Received \$200 (2021) and \$443 (2022) from Dartmouth College | |
| Presidential Fellowship, Dartmouth College | 2020 |
| <ul style="list-style-type: none"> Received \$1500 from Dartmouth College | |
| Undergraduate Research Fellowship, UCSD | 2019 |

- Received \$300 from UCSD Psychology Department
- Norman Henry Anderson Outstanding Independent Research Award in Cog/Behavioral Neuro.
UCSD Undergraduate Psychology Honors

2019
2018-2019

TEACHING EXPERIENCE

Teaching Assistant, Dartmouth College

Developmental Psychology, Dr. Melissa Herman

- 3 guest lectures in topics of Development of Vision.

Perception, Dr. Peter Tse

- Guest lecture in topics of V1 cells.

Statistics/Experimental Methods, Dr. John Pfister

Cognitive Psychology, Dr. Viola Störmer

- Guest lecture in topics of Working Memory.

Instructional Apprenticeship, UC San Diego

Sensation and Perception, Dr. Drew Hoffman

- Led a weekly, 50-minute discussion section of over 60 students on topics in sensory neuroscience.

Programming for Experimental Research, Dr. Ayse Saygin

- Prepared and graded weekly MATLAB PsychToolbox assignments for more than 20 students.

MENTORSHIP

- Sophie Bruno – Dartmouth Undergraduate Research Assistant (UGAR funding recipient)
- Jessica Vasconcelos Honorato – Dartmouth Undergraduate Research Assistant (Honors Student)
- Maytal Meskin – Dartmouth Undergraduate Research Assistant (Women in Science Program)
- Sam Seho Jung – Dartmouth Undergraduate Research Assistant (UGAR funding recipient)
- Alison Sasaki – Dartmouth Undergraduate Research Assistant (UGAR funding recipient)
- Kaira Shlipak – Dartmouth Undergraduate Research Assistant (Women in Science Program, Presidential Scholar)
- Nilay Agarwal – Project SHORT mentee
- Maria Espin – Dartmouth Undergraduate Research Assistant
- Nicole Anaya Sosa – Dartmouth Undergraduate Research Assistant (UGAR funding recipient)
- Elaine Chi – Dartmouth Undergraduate Research Assistant (URAD funding recipient)
- Sadye Law – Dartmouth Undergraduate Research Assistant (UGAR funding recipient)
- Alex Wells – Dartmouth Undergraduate Research Assistant
- JinKyung Kim – UCSD Korean Organization mentee, Now pursuing MS in counseling psychology @USC
- Valerie Ekko – Project SHORT mentee, Now Lab Manager at Whitney Perception Lab @UC Berkeley
- Yuxin Liu – UCSD Psych Honors mentee, Now PhD candidate @University of Michigan

SERVICES

OpenWMDData Contributor

2025-Present

- Compiled datasets from various papers in the field to be organized and published in OpenWMDData.

Vision Science Society Pre-Data Poster Session Organizer

2025-Present

- Organized pre-data poster sessions at the Annual meeting of vision science society.

Cognitive Brown Bag Organizer

2024-2025

- Organized students' bi-weekly brown bag talk series for the cognitive group at Dartmouth PBS, as well as hosted talks for external early-career scientists.

Inclusivity, Diversity, and Culture Committee, Dartmouth College

2023-2024

- Worked on issues regarding increasing diversity of the department such as outlining guidelines for diverse faculty hire, reach out efforts to underrepresented minority applicants, and departmental mentorship program.

Graduate Research Round Organizer, Dartmouth College

2022

- Organized bi-weekly meetings for graduate students to discuss research, professional development, and career opportunities.

Ad Hoc Reviewer

- Memory & Cognition, Biological Psychology, Psychonomic Bulletin & Review, Collabra: Psychology, Scientific Reports, Advances in Cognitive Psychology, Open Mind, Brain & Behavior, Vision Research, Memory, Journal of Experimental Psychology: Learning, Memory, & Cognition, Journal of Experimental Psychology: Human Perception & Performance, Psychological Research, Experimental Brain Research; Journal of Experimental Psychology: General, iScience, Frontiers in Psychology

RELEVANT SKILLS

MATLAB

- Programmed and designed in-lab experiments using PsychToolbox.
- Experience in behavioral data analysis.
- Experience in EEG data analysis using EEGLAB and ERPLAB.

JavaScript/CSS/HTML

- Programmed and designed online behavioral experiments.

R

- Statistical analysis.

LANGUAGES

- English– Fluent
- Korean– Native Language

REFERENCES

Dr. Viola Störmer, Dartmouth College

Dr. Timothy Brady, UC San Diego

Dr. John Serences, UC San Diego