

**Eren Günseli, Ph.D.**

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**Research Focus:** Cognitive and neural mechanisms of working memory, episodic memory, and attention**Education and Professional Profile**

<b>Assistant Professor</b> , Sabancı University, Istanbul, Turkey	2020 - present
<b>Postdoctoral Scholar</b> , Columbia University, New York, NY Advisor: Dr. Mariam Aly	2017 - 2019
<b>Postdoctoral Scholar</b> , University of Chicago, Chicago, IL Advisors: Dr. Edward Awh, Dr. Edward K. Vogel	2015 - 2017
<b>Visiting Research Scholar</b> , Duke University, Durham, NC Advisor: Dr. Tobias Egner	2015
<b>Ph.D., Cognitive Psychology</b> , VU University Amsterdam, the Netherlands Advisors: Dr. Martijn Meeter, Dr. Chris Olivers	2011 - 2015
<b>Research Assistant &amp; Lab Manager</b> , Bogazici University, Istanbul, Turkey Advisor: Dr. Aysecan Boduroglu (Cognitive Processes Lab)	2009 - 2011
<b>M.Sc., Cognitive Psychology</b> , Bogazici University, Istanbul, Turkey Advisor: Dr. Aysecan Boduroglu	2008 - 2011
<b>B.A., Physics</b> , Bogazici University, Istanbul, Turkey	2003 - 2008

**Publications***Names with underlines refer to Günseli Lab members at the time of research*Güler, B. & **Günseli E.** (accepted). The Mosaic of Experience: How Individual Differences in Attention and Working Memory Shape Event Segmentation. *Cognitive Research: Principles and Implications*Ünver, N. & **Günseli, E.** (accepted). Investigating Effects of Divided Attention at Test on Memory Accessibility and Precision in a Continuous Report Paradigm. *Memory & Cognition*Yılmaz, Y., Ataseven, N., Kruijne, W., Akyürek, E., & **Günseli, E.** (accepted). Passive but accessible: Studied information is not actively stored in working memory, yet attended regardless of anticipated load. *Journal of Cognitive Neuroscience*Bağlar, A. B., **Günseli, E.** (2026). Ignorance is bliss: Exploring the dual role of knowledge in event segmentation. *Psychonomic Bulletin & Review*, 33(1), 50.Güler, B., Serin, F., & **Günseli, E.** (2025). Prediction error is out of context: The dominance of contextual stability in segmenting episodic events. *Psychonomic Bulletin & Review*, 1-12.Özdemir, Ş., **Günseli, E.**, Schneider, D. (2025). Motor control processes moderate visual working memory gating. *Journal of Neuroscience*. 45(47), e0673252025.Güler, B., Adıgüzel, Z., Uysal, B., & **Günseli, E.** (2024). Discrete memories of a continuous world: A working memory perspective on event segmentation. *Current Research in Behavioral Sciences*, 6, 100145.**Günseli, E.**, Foster, J., Sutterer, D., Todorova, L., Vogel, E. K., & Awh, E. (2024). Encoded and updated spatial working memories share a common representational format in alpha activity. *iScience*, 27(2).Nolden, S., Turan, G., Güler, B., & **Günseli, E.** (2024). Prediction error and event segmentation in episodic memory. *Neuroscience and Biobehavioral Reviews*, 157, 105533.Özdemir, Ş., Sentürk, Y. D., Ünver, N., Demircan, C., Olivers, C. N., Egner, T., & **Günseli, E.** (2024). Effects of context changes on memory reactivation. *Journal of Neuroscience*, 44,36, e2096232024.Sentürk, Y. D., Ünver, N., Demircan, C., Egner, T., **Günseli, E.** (2024). The reactivation of task rules triggers the reactivation of task-relevant items. *Cortex*, 171. 465-480

Ataseven, N., Ünver, N., & Günseli, E. (2023). How does divided attention hinder different stages of episodic memory retrieval? *Current Research in Behavioral Sciences*, 100139.

Serin, F., & Günseli, E. (2023). Internal attention is the only retroactive mechanism for controlling precision in working memory. *Attention, Perception, & Psychophysics*, 85(5), 1375-1386.

**Günseli, E., Haşşerbetçi, S.** (2021). EEG çalışmalarında viral enfeksiyon bulaşma riskini azaltma yönergeleri. *Türkiye Halk Sağlığı Dergisi*, 19(2), 182-195. English: Guidelines for reducing viral infection transmission in EEG studies, *Turk J Public Health*, 19(2):182-195.

**Günseli, E. & Aly, M.** (2020). Preparation for upcoming attentional states in the hippocampus and medial prefrontal cortex. *eLife*, 9, e53191.

Tarder-Stoll, H., Jayakumar, M., Dimsdale-Zucker, H. R., **Günseli, E.**, & Aly, M. (2020). Dynamic internal states shape memory retrieval. *Neuropsychologia*, 138

**Günseli, E.**, Fahrenfort, J. J., van Moorselaar, D., Daoultzis, K. C. C., Meeter, M., & Olivers, C. N. L. (2019). EEG dynamics reveal a dissociation between selective attention and storage in working memory. *Scientific Reports*, 9, 13499.

Hakim, N., Adam, K. C. S., **Günseli, E.**, Awh, E. & Vogel, E. (2019). Dissecting the neural focus of attention reveals distinct processes for spatial attention and object-based storage in visual working memory. *Psychological Science*, 30(4), 526-540.

van Driel, J., **Günseli, E.**, Meeter, M., & Olivers, C. N. (2017). Local and interregional alpha EEG dynamics dissociate between memory for search and memory for recognition. *NeuroImage*, 149, 114-128.

**Günseli, E.**, Meeter, M., & Olivers, C. N. L. (2016). Task-Irrelevant Memories Rapidly Gain Attentional Control with Learning. *Journal of Experimental Psychology: Human Perception and Performance*, 42(3), 354-362

**Günseli, E.**, van Moorselaar, D., Meeter, M., & Olivers, C. N. L. (2015). The reliability of retro-cues determines the fate of non-cued visual working memory representations. *Psychonomic Bulletin & Review*, 22(5), 1334-1341.

van Moorselaar, D., **Günseli, E.**, Theeuwes, J., & Olivers, C. N. L. (2015). The time course of protecting a visual memory representation from perceptual interference. *Frontiers in Human Neuroscience*, 8, 1053.

**Günseli, E.**, Meeter, M., & Olivers, C. N. L. (2014). Is a search template an ordinary working memory? Comparing electrophysiological markers of working memory maintenance for visual search and recognition. *Neuropsychologia*, 60, 29-38.

**Günseli, E.**, Olivers, C. N. L., & Meeter, M. (2014). Effects of search difficulty on the selection, maintenance, and learning of attentional templates. *Journal of Cognitive Neuroscience*, 26, 2042-2054.

### Accepted Registered Reports

Todorova, L., & Günseli, E. (in-principle acceptance\*). In search of compressed semantic representations in visual working memory: evidence from a dual-task paradigm. *Journal of Experimental Psychology: Learning, Memory, & Cognition*

Todorova, L., & Günseli, E. (in-principle acceptance\*). Working memory retrieval pointers for accessible long-term memory representations. *Cortex*

Yücel, D., Türk, B., Günseli, E. (in-principle acceptance\*). The role of working memory for mental operations on information in long-term memory. *Nature Communications Psychology*

\* A registered report that is accepted in principle guarantees publication of future results as long as researchers follow the registered procedure.

### Grants, Fellowships, & Awards

- Tübitak 1001 Scientific and Technological Research Projects Support Program by the Scientific and Technological Research Council of Türkiye, 2026

- Outstanding Young Scientist Awards of the Turkish Academy of Sciences (Türkiye Bilim Akademisi Üstün Başarılı Genç Bilim İnsanı Ödülleri (TÜBA-GEBİP), 2025
- TÜBİTAK Teşvik Ödülü (Incentive Award), 2024
- Middle East Technical University Mustafa Parlar Foundation Research Award, 2023
- The Academy of Science (BAGEP) Young Scientist Award, 2023
- Psychonomic Society 2023 Best Article for Attention, Perception, & Psychophysics
- Tübitak 1001 Scientific and Technological Research Projects Support Program, 2023.
- Tübitak 3501 Career Development Grant, 2022.
- Tübitak 1001 Scientific and Technological Research Projects Support Program, 2022.
- Sabancı University President's Research Fund, 2021
- Rapid Funding Grant, Scientific and Technological Research Council of Turkey, 2021
- Seal of Excellence, Marie Skłodowska-Curie Action, European Commission, 2021
- Integration Projects Support, Sabancı University, 2020 (50.000 TL; €10,600 at the time of application)
- Tübitak 2232 International Fellowship for Outstanding Researchers, 2019
- VU University, Amsterdam, Faculty of Psychology and Education Talent Fund, 2015
- Bogazici University Foundation – Conference Participation Fellowship, 2010 for Annual Workshop of Object Perception, Attention and Memory. St. Louis
- Bogazici University Faculty of Arts and Sciences – Poster/Presentation Conference Participation Fellowship, 2010 for Annual Workshop of Object Perception, Attention and Memory. St. Louis
- Prime Minister's Grant\*, 2003 - 2008.
- Thrust and Dormitories Institution Grant\*, 2003 - 2008.

### Invited Colloquia and Symposia

1. Bilkent University, Turkey. Keeping in Mind What's Worth Keeping: How the Mind Reactivates What Matters. December 2025
2. The Donders Institute for Brain, Cognition and Behavior, Radboud University. Netherlands. Reactivating Memory for Flexibility: When and Why Long-Term Memories Return to Mind. June 2025
3. Humboldt Universität zu Berlin. Germany. Flexible Memory Interplays: Selective Reactivation of Long-Term Memories in Working Memory. February 2025
4. New York University, Abu Dhabi, United Arab Emirates. A selective memory reactivation account. January 2025
5. Leibniz Research Centre for Working Environment and Human Factors, Dortmund, Germany. Memory Reactivation in Changing Contexts: A Dynamic Interplay Between Working Memory and Long-Term Memory. October 2024
6. Özyeğin University, Türkiye. Event structure is shaped by context, not prediction errors. May 2024
7. University of Geneva, Switzerland. The driving factors and outcomes of reactivating long-term memory in working memory. November 2023
8. Vrije Universiteit Amsterdam, Netherlands. When and how working memory reactivates long-term memories. September 2023
9. University of Groningen, Netherlands. Deciphering when and how working memory reactivates long-term memories. September 2023
10. Cognitive Neuroscience Society Meeting, San Fransico, USA. Cognitive and neural mechanisms of removing information from working memory. Invited to submit for 2023 *but did not accept the invitation due to long waiting times at the US embassy for visa appointments*
11. Ruhr University Bochum, Germany. Oscillatory mechanisms of attentional selection within working memory. 2020
12. Lehigh University. Interactions between memory and attention. 2019
13. Sabancı University, Turkey. How attention is guided by, and directed to, memory. January 2019
14. Bilkent University, Turkey. How attention is guided by, and directed to, memory. January 2019

### Major Conference Presentations & Colloquia

Bağlar, A. B. & **Günseli, E.** (2025, November). Segmenting the Expected and the Unexpected: Knowledge Compatibility and Context Drive Event Segmentation. Poster at Psychonomic Society Meeting, Denver, CO, USA.

Güler, B., Karahamza, S., Şentürk, Y.D., Bein, O., Clewett, D. **Günseli, E.** (2025, November). Reactivation or Accumulation? Exploring Working Memory's Role in Event Segmentation. Poster at Psychonomic Society Meeting, Denver, CO, USA.

**Günseli, E., & Zhu, P.** (2025, November). Unintentional Encoding of Time in Working and Long-Term Memory. Talk at Psychonomic Society Meeting, Denver, CO, USA.

Yılmaz, Y., Ataseven, N., Kruijine, W., Akyürek, E., & Günseli, E. (2025, November). Working Memory Load Expectations Do Not Influence Long-term Memory Use. Poster at Psychonomic Society Meeting, Denver, CO, USA.

Kaynar, M. Y., Günseli, E. (2025, May). Optimizing memory task ratio and disentangling precision and guidance. Poster at Vision Sciences Society Meeting, St. Pete, FL, USA.

Özdemir, S., Günseli, E., & Schneider, D. (2025, May). Task-relevant actions trigger automatic working memory updating. Talk at Vision Sciences Society Meeting, St. Pete, FL, USA.

Güler, B., Karahamza, S., Şentürk, Y.D., Bein, O., Clewett, D. **Günseli, E.** (2025, May). Reactivation or Accumulation? Exploring Working Memory's Role in Event Segmentation. Poster at Vision Sciences Society Meeting, St. Pete, FL, USA.

Yılmaz, Y., Ataseven, N., Kruijine, W., Akyürek, E., & Günseli, E. (2025, May). Anticipation of Extra Memory Load Does Not Alter Working Memory's Reliance on Long-term Memory. Poster at Vision Sciences Society Meeting, St. Pete, FL, USA.

Yücel, D., Ataseven, N., Todorova, L., Güler, B., Fukuda, K., & Günseli, E. (2025, May). Anticipating attentional guidance enhances reliance on long-term memory. Poster at Vision Sciences Society Meeting, St. Pete, FL, USA.

Güler, B., Serin, F., & Günseli, E. (2024, November). Keeping It Together: Context Matters More Than Prediction Error in Event Segmentation. Poster at Psychonomic Society Meeting, New York, NY, USA

**Günseli, E.** (2024, November). Reevaluating Working Memory: Selective Reactivation of Long-Term Memories for Adaptive Behavior. Talk at Psychonomic Society Meeting, New York, NY, USA

**Günseli, E.** (2024, May). Flexible memory interplays: selective reactivation of long-term memories in working memory. Talk at Vision Sciences Society Meeting, St. Pete, FL, USA.

Ataseven, N., Todorova, L., Yücel, D., Güler, B., Fukuda, K., Günseli, E. (2023, September). Individual differences in working memory reactivation of long-term memories predict protection against anticipated interference. Poster at the European Society of Cognitive Psychology Meeting

Güler, B., Serin, F., Günseli, E. (2023, September). Contextual stability, not prediction errors, underlies event segmentation. Poster at the European Society of Cognitive Psychology Meeting

**Günseli, E.** (2023, September). The nature of the interaction between working memory and long-term memory. Talk at the European Society of Cognitive Psychology Meeting.

Özdemir, Ş., Şentürk, Y. D., Ünver, N., Demircan, C., Egner, T., Olivers, C. N. L., & Günseli, E. (2023, September). Effects of Context Changes on Memory Reactivation. Poster at the European Society of Cognitive Psychology Meeting

Şentürk, Y. D., Ünver, N., Demircan, C., Egner, T., Günseli, E. (2023, September). The interdependence of the memory reactivation of items and task rules. Talk at the European Society of Cognitive Psychology Meeting.

Yücel, D., Türk, B., Günseli, E. (2023, September). The role of working memory for mental operations on information in long-term memory. Talk at the European Society of Cognitive Psychology Meeting

Şentürk, Y. D., Ünver, N., Demircan, C., Egner, T., Günseli, E. (2023, May). The interdependence of the memory reactivation of items and task rules. Poster at Vision Sciences Society Meeting, St. Pete, FL, USA.

Ataseven, N., Güler, B., Yücel, D., Todorova, L., Fukuda, K., Günseli, E. (2023, March). Information available in long-term memory is reactivated in working memory regardless of anticipated perceptual interference. Poster at the International Congress of Psychological Science, Belgium.

## Teaching and Advising Experience

### Teaching

Attention; Cognitive Neuroscience; EEG Methods & Analyses; Introduction to Neuroscience; Mind & Behavior (Memory and Attention week only); Natural Science (the Brain week only); Proj 201; Seminar on Memory & Attention; Trends in Psychological Science (Graduate).

*These course are regularly taught approximately at least once per year since 2020*

### Mentoring: Postdoctoral Scholars

2025 – Berna Güler  
 2024 – Ping Zhu  
 2021 – 2023 Lara Todorova

### Mentoring: PhD Theses

2024 – Busenur Akbaş  
 2021 – 2025 Berna Güler

### Mentoring: MSc Theses

2024 – İlayda Efsane Algın, Nurullah Ertaş  
 2023 – Ahmet Burhan Bağlar, Ali Yılmaztekin, M. Yaren Kaynar, Yakup Yılmaz  
 2021 – 2024 Sümeyye Karahamza, Yağmur Şentürk  
 2021 – 2023 Şahcan Özdemir  
 2020 – 2023 Duygu Yücel, Nursena Ataseven  
 2020 – 2022 Fatih Serin, Nursima Ünver

### PhD Thesis Qualification Committee

2024 Kerem Besim Durbin, Sabancı University, Istanbul, Turkey.  
 2022 Derya Bağcı, Boğaziçi University, Istanbul, Turkey

### MSc Thesis Committee

2023 M. İlker Duymaz, Sabancı University, Istanbul, Turkey  
 2022 Ege Ötenen, Koç University, Istanbul, Turkey  
 2021 Ayşenur Okan, Koç University, Istanbul, Turkey

### Voluntary Teaching

Nesin Psychology Village, Course on Irrational Beliefs, 2024 , 2025  
 Nesin Psychology Village, Course on Cognitive Neuroscience, 2022, 2023  
 Coglst Summer School of Cognitive Science, Course on Memory, 2021  
 Turkish Science Academy Summer School in Cognitive Neuroscience, 2020

## Ad Hoc Reviewer

Biological Psychology | Cerebral Cortex | Cognition | Cognitive, Affective, & Behavioral Neuroscience | Cortex | Frontiers in Psychology | Journal of Experimental Psychology: General | Journal of Experimental Psychology: Human Perception and Performance | Journal of Neuroscience | Nature Communications | PLOS Biology | Psychological Research | Psychonomic Bulletin & Review | Psychophysiology | Scientific Reports | the Quarterly Journal of Experimental Psychology | Visual Cognition

### **Citizen Duties**

Editorial Advisory Board, The Young Science Journal of the Scientific and Technological Research Council of Turkey. 2022 – 2024