

# MELTEM KARACA

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## EDUCATION

<b>Ph.D.</b>	<b>University of Massachusetts Lowell</b> Applied Psychology and Prevention Science Advisor: Lisa Geraci	2022 <i>Lowell, MA, USA</i>
<b>M.S.</b>	<b>Bilkent University</b> Neuroscience	2017 <i>Ankara, Turkey</i>
<b>B.A.</b>	<b>Bilkent University</b> Psychology	2015 <i>Ankara, Turkey</i>

## ACADEMIC EMPLOYMENT

<b>Postdoctoral Fellow</b>	Center for Translational Cognitive Neuroscience Boston University School of Medicine and VA Boston Healthcare System	2022-Present <i>Boston, MA</i>
<b>Institutional Researcher</b>	Graduate, Online & Professional Studies University of Massachusetts Lowell	2021-2022 <i>Lowell, MA</i>
<b>Peer Mentor of Instructors</b>	Department of Psychology University of Massachusetts Lowell	2021-2022 <i>Lowell, MA</i>
<b>Instructor of Record</b>	Department of Psychology University of Massachusetts Lowell	2019-2021 <i>Lowell, MA</i>
<b>Research Assistant</b>	Department of Psychology University of Massachusetts Lowell	2017-2019 <i>Lowell, MA</i>
<b>Teaching Assistant</b>	Department of Psychology University of Massachusetts Lowell	2017-2019 <i>Lowell, MA</i>
<b>Teaching Assistant</b>	Department of Psychology Bilkent University	2015-2017 <i>Ankara, Turkey</i>

## RESEARCH INTERESTS

Memory and Aging, Memory Disorders, Self-perceptions of Aging, Metacognition, Applying Cognitive Psychology to Educational Practice, Event-related potentials, Correcting Misconceptions

## **AWARDS AND SCHOLARSHIPS**

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- Women in Cognitive Science Networking Award, Psychonomic Society, 2022 (\$1000)
- Graduate Research Award, University of Massachusetts Lowell, 2022 (\$500)
- Professional Development Award, University of Massachusetts Lowell, 2022 (\$500)
- Minority Workshop Award by Society of Multivariate Experimental Psychology to attend 3-day Multilevel Modeling Workshop, 2021 (\$475)
- Graduate Teaching Award, University of Massachusetts Lowell, 2021 (\$500)
- Professional Development Award, University of Massachusetts Lowell, 2021 (\$500)
- Lighting Talk Award (1<sup>st</sup> Place), Research Symposium at the University of Massachusetts Lowell, 2019 “*The dark side of interpolated testing: Does retrieval practice protect against task-switching cost?*” (\$250)
- Full Scholarship in Graduate Studies: MS Program in Neuroscience, Bilkent University, 2015-2017
- Pre-PhD Travel Award, Berlin School of Mind and Brain, Humboldt University, 2016
- Successive Merit Undergraduate Scholarship Award, Bilkent University, 2013-2015

## **GRANTS AND FELLOWSHIPS**

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- Faculty of Health and Social Sciences Student Assistantship Program Research Funding in University of Massachusetts Lowell, 2020 (\$2160)
- TUBITAK (the Scientific and Technological Research Council of Turkey) 2224-A Conference Travel Grant for Graduate Students, 2016 Budget: 2162 TL. (approximately \$1,081 at the time of funding)
- TUBITAK 2209 National/International Research Projects Fellowship Programme for Undergraduate Students-A (2015-1), 2015 Budget: 1100 TL. (approximately \$520 at the time of funding)

## **PEER-REVIEWED PUBLICATIONS**

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Note. \* Denotes undergraduate co-author.

**Karaca, M.,** Geraci, L., Kurpad, N., Lithander, M., & Balsis, S. (2023). Low-performing students confidently overpredict their grade performance throughout the semester. *Journal of Intelligence*. <https://doi.org/10.3390/jintelligence11100000>

**Karaca, M.,** Geraci, L., Tirso, R., & \*Aube, J. (2023). The relationship between older adult's subjective age and perceived effort on cognitive tasks. *Experimental Aging Research*. <https://doi.org/10.1080/0361073X.2022.2145163>

Lithander, M. P. G., Geraci, L., **Karaca, M.,** & Rydberg, J. (2021) Correcting neuromyths: A comparison of different types of refutations. *Journal of Applied Research in Memory and Cognition*, 10(4), 577-588. <https://doi.org/10.1016/j.jarmac.2021.03.006>

Telesco, P., **Karaca, M.**, \*Ewing, H., \*Gilbert, K., \*Lipitz, S., & Weinstein-Jones, J. (2021). Does retrieval practice enhance memorization of piano melodies? *College Music Society*, 61(2), 1-23. <https://doi.org/10.18177/sym.2021.61.sr.11525>

**Karaca, M.**, Kurpad, N., Wilford, M. M., & Davis, S. D. (2020). Too much of a good thing: Frequent retrieval can impair immediate new learning. *Memory*, 28(10), 1181-1190. <https://doi.org/10.1080/09658211.2020.1826526>

Besken, M., \*Solmaz, E., C., **Karaca, M.**, & Atilgan, N. (2019). Not all perceptual difficulties lower memory predictions: Testing the perceptual fluency hypothesis with rotated and inverted object images. *Memory & Cognition*, 47(5), 906-922. <https://doi.org/10.3758/s13421-019-00907-7>

#### **MANUSCRIPTS UNDER REVIEW/REVISION**

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Note. \* Denotes undergraduate co-author.

Lithander, M., **Karaca, M.**, Geraci, L., & Hunsberger, R. (under review). Examining the effect of corrections on the continued influence of misconceptions. *Applied Cognitive Psychology*.

#### **MANUSCRIPTS IN PREPARATION**

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Note. \* Denotes undergraduate co-author.

**Karaca, M.**, Chadalavada, M., Budson, A. E., & Turk, K. (in preparation, data collected). *Neural correlates of familiarity and recollection in traumatic brain injury*.

Turk, K., **Karaca, M.**, Morreale, K., & Budson, A. E. (in preparation, data collected). *The relationship between event-related potentials and MRI cortical atrophy in a memory disorders clinic*.

**Karaca, M.**, Geraci, L., & Wang, Y. (in preparation, data collected). *The relationship between subjective experiences of aging and age-related positivity effect*.

**Karaca, M.**, Geraci, L. & Lithander, M. (in preparation, data collected). *The effect of retrieval practice and stereotype threat on learning statistics*.

Kurpad, N., **Karaca, M.**, & Wilford, M. M. (in preparation, data collected). *Decreasing overconfidence in lecturer fluency*.

Kurpad, N., **Karaca, M.**, Davis, S. D., & Wilford, M. M. (in preparation, data collected). *The dark side of interpolated testing: does retrieval practice protect against the task-switching cost?*

**Karaca, M.**, Atilgan, N., & Clarke, M., A. (in preparation, data collected). *The effect of task on cue usefulness for visual scene classification*.

**Karaca, M., Turk, K., Hagan, B., Smith, A., & Budson, A.** (in preparation, data collected). *Using event-related potentials in diagnosing Alzheimer's disease.*

**Karaca, M., Turk, K., Hagan, B., Smith, A., & Budson, A.** (in preparation). *Examining the effect of spaced-retrieval in improving autobiographical memories in older adults with memory disorders.*

Budson, A. & **Karaca, M.** (in preparation). *The role of subjective experience in consciousness.*

## **OTHER PUBLICATIONS**

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Ozkan, B., & **Karaca, M.** (2022). Study on Metacognition and Critical thinking in Trust and Safety. *Concentrix*

## **PRESENTATIONS**

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Note. \*Denotes undergraduate co-author

### **Peer-reviewed Oral Presentations:**

**Karaca, M., Geraci, L., & Wang, Y.,** (2022, April). *Do older adults remember more positive memories when they feel older than their chronological age?* Talk presented at the bi-annual Cognitive Aging Conference, Atlanta, GE, USA.

**Karaca, M., Lithander, M., & Geraci, L.** (2021, July). *Learning by retrieval practice: Is it effective for learning statistical concepts?* Talk presented at the virtual meeting of the Society of Applied Research in Memory and Cognition.

Lithander, M., **Karaca, M., & Geraci, L.** (2021, July). *Correcting neuromyths: A comparison of different types of refutations and continued Influence.* Talk presented at the virtual meeting of the Society of Applied Research in Memory and Cognition.

Kurpad, N., **Karaca, M., Wilford, M. M., & Davis, S.,** (2021, July). *Can retrieval practice eliminate the cost of task-switching, even after a delay?* Talk presented at the virtual meeting of the Society of Applied Research in Memory and Cognition.

**Karaca, M., Atilgan N., & Besken, M.** (2016, May). *Testing the perceptual fluency hypothesis through inverted pictures.* Talk presented at the International Conference on Memory, Budapest, Hungary.

### **Peer-reviewed Poster Presentations:**

Hagan, B., **Karaca, M., Waskow, E., Turk, K. & Budson, A. E.,** (2023, July). *Dementia as a disorder of consciousness.* Poster presented at Association of Scientific Studies of Consciousness, New York City, NY, USA.

- Morreale, K., Marin, A., **Karaca, M.**, Hagan, B., Chadalavada, M., DeCaro, R., Brown, E., Salat, D., Budson, A. E., & Turk, K. (2023, July). *The relationship between event-related potentials and MRI cortical atrophy in a memory disorders clinic*. Poster presented at the Alzheimer's Association International Conference, Amsterdam, Netherlands.
- Karaca, M.**, \*Aube, J., Geraci, L., & Tirso, R. (2022, April). *The relationship between subjective age and perceived effort in older adults*. Poster presented at the Cognitive Aging Conference 2022, Atlanta, GE, USA.
- Karaca, M.**, Lithander, M., & Geraci, L. (2021, November). *Examining the use of retrieval practice for learning statistics*. Poster presented at the annual Psychonomic Society conference, Virtual Meeting.
- Lithander, M., **Karaca, M.**, \*Dipano, M., & Geraci, L. (2020, November). *Examining the effect of corrections on the continued influence of neuromyths*. Poster presented at the annual Psychonomic Society conference, Virtual Meeting.
- Lithander, M., Geraci, L., & **Karaca, M.** (2019, November). *Correcting neuromyths: A comparison of interventions*. Poster presented at the annual Psychonomic Society conference, Montréal, Québec, Canada.
- Karaca, M.**, Kurpad, N., Wilford, M. M., & Weinstein, Y. (2019, June). *The dark side of interpolated testing: Does retrieval practice protect against the task-switching cost?* Poster presented at the bi-annual meeting of the Society for Applied Research in Memory and Cognition, Cape Cod, MA, USA.
- Karaca, M.**, \*Ewing, H., Telesco, P., & Weinstein-Jones, Y. (2019, February). *The effect of retrieval practice on long-term retention of musical notes*. Poster presented at the Harvard University Music Conference, Boston, MA, USA.
- Lithander, M., **Karaca, M.**, Sumeracki, A., M., & Weinstein, Y. (2018, November). *The effects of religious practice and education on beliefs in neuromyths*. Poster presented at the annual Psychonomic Society conference, New Orleans, LA, USA.
- \*Bilgin, E., **Karaca, M.**, \*Ersin, M., & Besken, M. (2018, November). *Vividness and fluency of autobiographical memories*. Poster presented at the annual meeting of National Psychology conference. Ankara, Turkey.
- Karaca, M.**, \*Ewing, H., Telesco, P., & Weinstein, Y. (2018, May). *Application of retrieval practice to music memorization*. Poster presented at the annual meeting of the Association for Psychological Science, San Francisco, CA, USA.
- Karaca, M.**, & Clarke, A. (2017, October). *The effect of task on cue usefulness for visual scene classification*. Poster presented at the annual meeting of the New England Psychological Association, Newton, MA, USA.

**Karaca, M.,** Atilgan, N., & Besken, M. (2016, May). *The picture generation effect on memory and metamemory and its relationship with perceptual fluency hypothesis*. Poster presented at the 3<sup>rd</sup> International Symposium on Brain and Cognitive Science, Istanbul, Turkey.

**Karaca, M.,** Atilgan, N., & Besken, M. (2015, May). *Testing the perceptual fluency hypothesis and its relationship with metamemory*. Poster presented at the annual meeting of Bilkent University Student Presentations, Ankara, Turkey.

Atilgan, N., **Karaca, M.,** Kafalıgonul M., & Boyacı, H. (2015, May). *Effect of integration of visual and auditory information on attention and cognitive performance*. Poster presented at the annual meeting of Bilkent University Student Presentations, Ankara, Turkey.

### **Invited Talks:**

01/2021, Integrating Metacognition through Innovative Teaching Strategies within Content Moderation Practice. Concentrix. Toronto, Ontario, Canada.

12/2020, Examining Methods to Improve Students' Learning Performance and Understanding the Relationship between Self-Perceptions of Aging and Memory. Schacter Memory Lab at Harvard University. Cambridge, MA, USA.

### **RESEARCH MENTORSHIP**

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Supervised undergraduate research, directed studies, and Honors theses:

- Myna Chadalavada, M.S., Research Assistant, Boston University
- Kristina Morreale, M.A., Research Assistant, VA Boston
- Andrea Ruf, PsyD in Clinical Psychology, William James College
- Tala Taheri, PsyD in Clinical Psychology, William James College
- Jonathan Aube, Honors Thesis, University of Massachusetts Lowell
- Caroline Finn, Directed Research in Psychology, University of Massachusetts Lowell
- Sophie Tamarkin, Directed Research in Psychology, University of Massachusetts Lowell
- Aifuwa Asemota, Research Service Learning in Psychology, University of Massachusetts Lowell
- Megan Witkowski, Directed Research in Psychology, University of Massachusetts Lowell
- Hayley Cooper, Directed Research in Psychology in University of Massachusetts Lowell
- Alexander Lacasse, Directed Research in Psychology in University of Massachusetts Lowell
- Ezgi Bilgin, Senior Thesis in Psychology in Bilkent University
- Melike Ersin, Directed Research in Psychology in Bilkent University

## **SKILLS**

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Proficient with:

- Traditional NHST and Bayesian methods
- Neuropsychological testing (e.g., MOCA, MMSE, CERAD)
- Wet and dry Electroencephalogram (EEG) rig set-up
- Participant recruitment platforms: SONA, Prolific Academic, MTurk
- Statistical packages: R, SPSS, HLM, JASP, Jamovi, FreeSurfer, EEG Lab
- Softwares: PsychoPy, E-prime, Qualtrics, G\*Power, Matlab

## **TEACHING EXPERIENCE**

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### **Instructor of Record, University of Massachusetts Lowell, Department of Psychology:**

- Introduction to Psychological Science
  - Spring 2021 (49 students, 3 credits)
  - Fall 2020 (59 students, 3 credits)
  - Spring 2020 (49 students, 3 credits)
  - Fall 2019 (49 students, 3 credits)
  - Spring 2019 (49 students, 3 credits)

### **Teaching Assistant, University of Massachusetts Lowell, Department of Psychology:**

- Cognitive Psychology
- Psychology of Decision-making
- Research Methods I
- Research Methods III
- Introduction to Psychological Science

### **Guest Lecturer, University of Massachusetts Lowell, Department of Psychology:**

- Cognitive Psychology
- Introduction to Psychological Science

### **Teaching Assistant, Bilkent University, Department of Psychology:**

- Statistics II
- Introduction to Psychology/Social and Developmental
- Introduction to Psychology/Cognitive and Biological
- Laboratory in Psychological Research

### **Lab Teaching Assistant, Bilkent University, Department of Psychology:**

- Introduction to Computing and Programming

## **PROFESSIONAL ACTIVITIES AND SERVICE**

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**Ad Hoc Reviewer, Memory and Cognition | Applied Cognitive Psychology | Journal of Cognition | Experimental Aging Research**

**Psychology Graduate Student Association Peer Mentor**, University of Massachusetts Lowell, 2019-2021

**Professional Memberships**, The Psychonomic Society, Society for Applied Research in Memory and Cognition, American Psychological Association (APA), Women in Cognitive Science (WICS), SPARK Society, Association for Institutional Research (AIR)

**Translator, PsychoPY (Open-Source Software for Neuroscience and Psychology)**, Volunteering to translate the software from English to Turkish (Diversity and Internalization grant by Chan Zuckerberg Initiative)

## **TRAINING AND CERTIFICATIONS**

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**Multilevel Modeling** workshop hosted by CenterStat, 2021

**Modern Meta-Analysis Research** workshop hosted by AERA-ICPSR PEERS Data Hub, 2021

**Bayesian Inference for Applied Data Analysis** workshop hosted by Center for Program Evaluation in University of Massachusetts Lowell, 2021

**Missing Data Analysis** workshop hosted by Center for Program Evaluation in University of Massachusetts Lowell, 2021

**Exploratory Factor Analysis** workshop hosted by Center for Program Evaluation in University of Massachusetts Lowell

**Survey Construction** workshop hosted by Center for Program Evaluation in University of Massachusetts Lowell, 2021

**Structural Equation Modeling** workshop hosted by CenterStat, 2020

## **COMMUNITY SERVICE**

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**Volunteer, Social Awareness Project, Bilkent University, Ankara, Turkey, 2010-2015**

- Helped people who are coming from socioeconomically disadvantaged status
  - Teaching Biology and English to elementary and middle school children in low-income schools
  - Regular visits to hospital as a clown to entertain children with leukemia
  - Taking part of a library restoration in a financially disadvantaged village
  - Helping the organization of 7<sup>th</sup> INAS World Basketball for athletes with atypical development
  - Taking part in the organization of Living Library which aims to reduce prejudice against minorities and oppressed groups in society.

**Volunteer, Coordinator of International Project Group, Bilkent University, Ankara, Turkey, 2013-2014**

- Implement international projects with European Union assistance to facilitate cross-cultural interactions.

**Volunteer, Institution of Schizophrenia, Ankara, Turkey, 2013-2014**

- Took part in a writing a project which aims to diminish mental health stigma
- Organized a confidence and meetings to increase awareness about mental health stigma
- Organized a fundraising event to donate to Institution of Schizophrenia



**Volunteer, Summer International Camp, Bloomberg, Germany, 2013 Summer**

- Built a social facility and ecological garden where children can spend their leisure time in nature with 16 participants from 12 different countries.

**REFERENCES**

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Lisa Geraci, Ph.D.

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University of Massachusetts Lowell  
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Katherine Turk, M.D.

Professor of Neurology and Cognitive & Behavioral Neurologist  
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Andrew E. Budson, M.D.

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