

## SABINA SROKOVA, Ph.D.

Curriculum Vitae – July 2023

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### EDUCATION AND RESEARCH EXPERIENCE

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- Postdoctoral Fellow** 2023 – present  
Department of Psychology, University of Arizona, AZ, USA  
**Mentors:** Arne D. Ekstrom, Ph.D. & Carol A. Barnes, Ph.D.
- Ph.D., Cognition & Neuroscience** 2018 – 2022  
School of Behavioral and Brain Sciences, University of Texas at Dallas, TX, USA  
**Dissertation:** The relationship between age, cognitive performance, and the neural correlates of episodic memory encoding and retrieval.  
**Dissertation committee:** Michael D. Rugg, Ph.D. (doctoral advisor)  
Kristen M. Kennedy, Ph.D., Kendra L. Seaman, Ph.D., Alice J. O’Toole, Ph.D.
- B.Sc. (Hons), Psychology** 2014 – 2017  
Department of Psychology, University of Essex, United Kingdom  
**Thesis:** The impact of 10Hz fronto-parietal transcranial alternating current stimulation on working memory capacity: neural or retinal effects?  
**Thesis mentor:** Vincenzo Romei, Ph.D.
- Undergraduate Research Assistant – University of Essex** 2016 – 2017  
**Undergraduate Research Opportunities Placement**  
**Supervised by:** Vanessa M. Loaiza, Ph.D.
- Frontrunners Plus Research Placement – The Essex Babylab**  
**Supervised by:** Karla Holmboe, Ph.D., Silvia Rigato, Ph.D., Manuela Stets, Ph.D.
- Research Experience Scheme Placement**  
**Supervised by:** Helge Gillmeister, Ph.D.

### PEER-REVIEWED PUBLICATIONS

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1. de Chastelaine, M., Sroková, S., Hou, M., Kidwai, A., Kafafi, S.S., Racenstein, M.L., Rugg, M.D. (2023). Cortical thickness, gray matter volume, and cognitive performance: a cross sectional study of the moderating effects of age on their interrelationships. *Cerebral Cortex*. bhac518. [doi.org/10.1093/cercor/bhac518](https://doi.org/10.1093/cercor/bhac518)
  2. Sroková, S., Hill, P. F., & Rugg, M. D. (2022). The retrieval-related anterior shift is moderated by age and correlates with memory performance. *Journal of Neuroscience*, 42(9), 1765-1776. [doi.org/10.1523/JNEUROSCI.1763-21.2021](https://doi.org/10.1523/JNEUROSCI.1763-21.2021)
  3. Sroková, S., Hill, P. F., Elward, R. L., & Rugg, M. D. (2021). Effects of age on goal dependent modulation of episodic memory retrieval. *Neurobiology of Aging*, 102, 73-88. [doi.org/10.1016/j.neurobiolaging.2021.02.004](https://doi.org/10.1016/j.neurobiolaging.2021.02.004)
  4. Sroková, S., Hill, P. F., Koen, J. D., King, D. R., & Rugg, M. D. (2020). Neural Differentiation is Moderated by Age in Scene-Selective, But Not Face-Selective, Cortical Regions. *Eneuro*, 7(3). [doi.org/10.1523/ENEURO.0142-20.2020](https://doi.org/10.1523/ENEURO.0142-20.2020)

5. Koen, J. D.\*, **Srokova, S.\***, & Rugg, M. D\*. (2020). Age-related neural dedifferentiation and cognition. *Current opinion in behavioral sciences*, 32, 7-14. [doi.org/10.1016/j.cobeha.2020.01.006](https://doi.org/10.1016/j.cobeha.2020.01.006) \* *Denotes equal contribution.*
6. Loaiza, V. M., & **Srokova, S.** (2019). Semantic relatedness corrects the age-related binding deficit in working memory and episodic memory. *Journals of Gerontology, Series B: Psychological Sciences*, 75 (9), 1841-1849. [doi.org/10.1093/geronb/gbz055](https://doi.org/10.1093/geronb/gbz055)

## BOOK CHAPTERS

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1. Rugg, M.D., **Srokova, S.** (in press) Effects of age on neural reinstatement during memory retrieval. *Encyclopedia of the Human Brain, 2nd edition*, Elsevier, 2024 [osf.io/ju6fk/](https://osf.io/ju6fk/)

## PREPRINTS AND MANUSCRIPTS IN PREPARATION

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1. **Srokova, S.**, Aktas, A.N.Z., Koen, J.D., & Rugg, M.D., (under review). Dissociative effects of age on neural differentiation at the category and item level. [doi.org/10.1101/2023.05.24.542148](https://doi.org/10.1101/2023.05.24.542148)
2. Olivier, J.M.\*, **Srokova, S.**, & Rugg, M. D. (in prep). Age and retrieval-related scene reinstatement: moderating effects of cortical thickness and volume. \* *Mentored research assistant.*
3. Aktas, A.N.Z. \*, **Srokova, S.**, Koen, J.D., & Rugg, M.D. (in prep). Distinct fMRI Subsequent Memory Effects in the Mnemonic Similarity Task. \* *Mentored research assistant.*
4. Kidwai, A.\*, **Srokova, S.**, & Rugg, M.D., (in prep). FMRI correlates of retrieval gating of scene and object information \* *Mentored graduate student.*

## HONORS, AWARDS, AND GRANTS

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<b>NIH/NIA (T32) Postdoctoral Fellowship</b> , Arizona Alzheimer's consortium Training in Neurobiology of Aging and Alzheimer's disease	2023 – present
<b>Nancy M. O'Neil and John Q. Stilwell, JD</b> , PhD Fellowship, UT Dallas (\$1,000)	2022
<b>Dissertation Research Award</b> , UT Dallas (\$2,420)	2022
<b>Travel Award</b> , Reserve and Resilience in Cognitive Aging and Dementia (\$750)	2021
<b>British Psychological Society Undergraduate Award</b>	2017
<b>Michael Lodge Memorial Prize, 1st place</b> , University of Essex Highest score of the Psychology graduating class	2017
<b>Ray Meddis Prize</b> , University of Essex Best Undergraduate thesis in Psychology	2017
<b>Margaret Bell Prize</b> , University of Essex Outstanding contribution to the Psychology department	2017
<b>The Big Essex Award - Platinum Award</b> , University of Essex Recognition for extracurricular and volunteering activities	2017
<b>Undergraduate Research Opportunities Placement (\$2,000)</b> Research in Memory and Aging, University of Essex	2016
<b>Frontrunners Plus Research Placement (\$2,000)</b> Research in Cognitive Development, University of Essex	2016
<b>The Psychology Prize</b> , 2nd Place, University of Essex 2nd highest grade in Psychology Year 2	2016
<b>Dean's list</b> , University of Essex	2014 – 2017

## CONFERENCE PRESENTATIONS

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\* Denotes second-author presentations which were led by a mentored student.

### Oral presentations:

1. Aktas, A.N.Z. \*, **Srokova, S.**, Koen, J.D., Rugg, M.D., (2022) Examining the effects of age on neural differentiation at the level of individual stimulus exemplars, *Dallas Austin Area Memory Meeting, Austin, TX* \* **Mentored research assistant**
2. **Srokova, S.**, Hill, P.F., Rugg, M.D (2021). The Retrieval-related Anterior shift is Moderated by Age and Correlates with Memory Performance. *Dallas Austin Area Memory Meeting, Virtual Event organized by UT Dallas, TX*
3. **Srokova, S.**, Hill, P. F., Elward, R. L., Rugg, M. D (2020). Effects of age on goal-dependent modulation of episodic memory retrieval. *Psychology Lecture Series Brownbag, UT Dallas, TX*
4. Kafafi, S.\*, **Srokova S.**, Rugg, M.D (2020). Age-differences in visual sampling at encoding and predictions for successful retrieval. *Dallas Austin Area Memory Meeting, Virtual Event organized by UT Austin.* \* **Mentored research assistant**
5. **Srokova, S.**, Hill, P.F., Koen, J.D., King D.R., Rugg, M.D (2019). Neural differentiation at encoding predicts subsequent source memory performance in young and older adults. *Dallas Austin Area Memory Meeting, Waco, TX*

### Poster presentations:

1. **Srokova, S.**, Shahanawaz, N.S., & Rugg, M.D. (abstract submitted; 2023). Eye movements are associated with neural differentiation in scene-selective and object-selective cortical regions. *Society for Neuroscience, Washington D.C.*
2. Aktas, A.N.Z. \*, **Srokova, S.**, Koen, J.D., & Rugg, M.D. (abstract submitted; 2023). Distinct fMRI Subsequent Memory Effects for Scene Targets and Lures in the Mnemonic Similarity Task, *Society for Neuroscience, Washington D.C.* \* **Mentored research assistant**
3. Olivier, J.M.\*, **Srokova, S.**, & Rugg, M. D. (abstract submitted; 2023). Moderating effects of cortical volume and thickness on retrieval-related scene reinstatement, *Society for Neuroscience, Washington D.C.* \* **Mentored research assistant.**
4. Kidwai, A.\*, **Srokova, S.**, & Rugg, M.D., (abstract submitted; 2023). FMRI correlates of retrieval gating of scene and object information, *Society for Neuroscience, Washington D.C.*  
\* **Mentored graduate student.**
5. **Srokova, S.**, Aktas, A. N. Z, Koen, J.D., & Rugg, M.D. (2023). Univariate and multi-voxel metrics of item-level neural differentiation are not moderated by age. *Context and Episodic Memory Symposium, Lake Buena Vista, FA*
6. Aktas, A. N. Z \*, **Srokova, S.**, Koen, J.D., & Rugg, M.D. (2023). Rethinking the Lure Discrimination Index: Differential age-effects in behavioral measures of pattern separation for different stimuli categories *Context and Episodic Memory Symposium, Lake Buena Vista, FA*  
\* **Mentored research assistant**
7. **Srokova, S.**, Aktas, A. N. Z, Koen, J.D., & Rugg, M.D. (2022). Age-related neural

dedifferentiation at the level of individual stimulus items. *Society for Neuroscience, San Diego, CA*

8. Olivier, J.M. \*, **Srokova, S.**, Rugg, M.D., (2022) Age and retrieval-related scene reinstatement: moderating effects of cortical thickness. *Society for Neuroscience, San Diego, CA*  
\* *Mentored research assistant*
9. **Srokova, S.**, Aktas, A. N. Z, & Rugg, M.D. (2022). The effects of age on neural differentiation are moderated by global cortical thickness. *New Perspectives on Declarative Memory Conference, University of East Anglia, UK*
10. **Srokova, S.**, Hill, P. F., Rugg, M. D. (2022). Scene-selective increases in the functional connectivity of the parahippocampal place area are greater in young than older adults during encoding but are age-invariant at retrieval. *Cognitive Aging Conference, Atlanta, GA*
11. **Srokova, S.**, Hill, P. F., Rugg, M. D. (2022). Retrieval-related anterior shift is moderated by age and relates to memory performance. *Dallas Aging and Cognition Conference, 2022 (Abstract accepted, conference cancelled due to Covid-19)*
12. **Srokova, S.**, Hill, P. F., Rugg, M. D. (2021). Age differences in Retrieval-related Anterior shift in the Parahippocampal Place Area. *Cognitive Neuroscience Society, Virtual Event*
13. **Srokova, S.**, Hill, P.F., Koen, J.D., King D.R., Rugg, M.D. (2020). Age-related neural dedifferentiation in scene-selective cortical regions varies according to perceptual sub- category. *Cognitive Aging Conference, 2020 (Abstract accepted, conference cancelled due to Covid-19)*
14. **Srokova, S.**, Hill, P.F., Koen, J.D., King D.R., Rugg, M.D. (2019). Neural differentiation is moderated by age in scene-selective but not face-selective cortical regions. *Society for Neuroscience, Chicago, IL*
15. **Srokova, S.**, Hill, P.F., Koen, J.D., King D.R., Rugg, M.D. (2019). Neural differentiation at encoding predicts subsequent source memory performance in young and older adults. *Cognitive Neuroscience Society, San Francisco, CA*
16. **Srokova, S.**, Loaiza, V. M., (2018). Semantic relatedness corrects the age-related binding deficit in working memory and episodic memory. *Cognitive Aging Conference, Atlanta, GA*
17. **Srokova, S.**, Romei, V. (2017) The impact of 10Hz fronto-parietal tACS on Working Memory capacity: neural or retinal effects? *Conference for Undergraduate Final Research Project in Psychology, University of Essex, UK*

#### TEACHING EXPERIENCE

<b>Guest Lecturer</b> – UT Dallas HCS/ACN 6330: Cognitive Science	2023
<b>Undergraduate Teaching Assistant</b> – University of Essex PS212-5-FY: Statistics and Research Methods	2016 – 2017

#### MENTORING EXPERIENCE

<b>Ambereen Kidwai</b> , Doctoral student	2021 – present
<b>Ayse Aktas</b> , Research assistant	2022 – present
<b>Joshua Olivier</b> , Research assistant	2022 – present

<b>Nehal Shahanawaz</b> , Research assistant	2022 – present
<b>Sandra Girgis</b> , Master’s student	2021
<b>Salwa Shahid</b> , Undergraduate student	2021
<b>Miguel Talamo</b> , Undergraduate student	2021
<b>Harish Suryadevara</b> , Undergraduate student	2020
<b>Muneeza Sheikh</b> , Undergraduate student	2020

### **PUBLIC OUTREACH**

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- Research in Memory and Healthy Aging** – Public talk for the Dallas Retired School Personnel, Dallas, TX, 2022
- Age differences in the control of recollected content and neural selectivity** – Talk for the Center for Vital Longevity Advisory Council, Dallas, TX., 2020
- Dementia, memory, and healthy aging** – Public talk for the Garland Retired School Personnel, Garland, TX, 2019
- Memory in Healthy aging and in Alzheimer’s disease** – Public talk for the Celebration Senior Magazine, Richardson, TX, 2019

### **EXTRACURRICULAR ACTIVITIES AND VOLUNTEERING**

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<b>Assistant Adviser</b> – University of Essex Student’s Advice Centre	2014 – 2017
<b>Residents’ Assistant</b> – University of Essex Student Support	2016 – 2017
<b>Psychology Peer Mentor</b> – University of Essex Student Support	2015 – 2016
<b>President</b> – University of Essex Psychology Society	2015 – 2016
<b>First Year Representative</b> – University of Essex Psychology Society	2014 – 2015

### **ADDITIONAL SKILLS AND TRAINING**

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- Neuroimaging and statistical analyses**  
SPM (Functional MRI analyses), Freesurfer (Structural MRI analyses), MATLAB, R, Python, SPSS, JASP, G\*Power
- Eye-tracking data collection and analysis**  
Eyelink 1000 Plus, SR-Research Data Viewer
- Programming and administration of experimental tasks**  
PsychoPy (fMRI and Eyelink integration), PsychoJS, Pavlovia, Prolific
- Data visualization**  
R, MATLAB
- Certified independent MR operator at UT Dallas**  
Siemens Prisma 3T at The Sammons Center for BrainHealth
- Grant writing experience**  
NIH/NIA Ruth L. Kirschstein National Research Service Award Predoctoral Fellowship (F31): Does viewing behavior contribute to age effects on neural specificity during memory encoding and retrieval? – Start date 09/2021, Scored 42 and not resubmitted

### **SOCIETY AFFILIATIONS**

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Cognitive Neuroscience Society, Society for Neuroscience

### **AD HOC REVIEWER**

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Brain Research, Behavioural Brain Research, Frontiers in Psychology, Neuroimage: Reports