SABINA SROKOVA, Ph.D.

Curriculum Vitae
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sabinasrokova@arizona.edu
orcid.org/0000-0003-4780-8659
sabinasrokova.com

ACADEMIC POSITIONS

Postdoctoral Fellow 2023 – present
Department of Psychology, University of Arizona, AZ, USA

EDUCATION

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.

PEER-REVIEWED PUBLICATIONS

Srokova, S. (2024). Memory retrieval of visuospatial context arises in the anterior portions of high-level visual cortex. *The Journal of Neuroscience (Journal Club),* in press. https://doi.org/10.1523/JNEUROSCI.1854-23.2023

Srokova, S., Aktas. A.N.Z., Koen, J.D., & Rugg, M.D. (2023). Dissociative effects of age on neural differentiation at the category and item level. *The Journal of Neuroscience,* in press. https://doi.org/10.1523/JNEUROSCI.0959-23.2023

de Chastelaine, M., **Srokova, 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

Srokova, S., Hill, P. F., & Rugg, M. D. (2022). The retrieval-related anterior shift is moderated by age and correlates with memory performance. *The Journal of Neuroscience, 42*(9), 1765-1776. doi.org/10.1523/JNEUROSCI.1763-21.2021

Srokova, 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

Srokova, 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

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 ** Denotes equal contribution.*

Loaiza, V. M., & **Srokova, S**. (2020). 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

BOOK CHAPTERS

Rugg, M.D., **Srokova, S.** (2024) Effects of age on neural reinstatement during memory retrieval. Encyclopedia of the Human Brain, *Reference Module in Neuroscience and Biobehavioral Psychology*, Elsevier https://doi.org/10.1016/B978-0-12-820480-1.00020-6

MANUSCRIPTS UNDER REVIEW & IN PREP.

Srokova, S., Shahanawaz, N.S., & Rugg, M.D. (in prep, presented at SfN23). Eye movements are associated with neural differentiation in scene-selective and object-selective cortical regions in younger and older adults.

Olivier, J.M.*****, **Srokova, S**., & Rugg, M. D. (in prep, presented at SfN23). Age and retrieval-related scene reinstatement: moderating effects of cortical thickness and volume. ** Mentored research assistant.*

Aktas, A.N.Z.*****, **Srokova, S**., Koen, J.D., & Rugg, M.D. (in prep, presented at SfN23). Distinct fMRI subsequent Memory Effects in the Mnemonic Similarity Task. ** Mentored research assistant.*

Kidwai, A.*****, **Srokova, S.,** & Rugg, M.D., (in prep, presented at SfN23). FMRI correlates of retrieval gating of scene and object information ** Mentored graduate student.*

HONORS, AWARDS, AND GRANTS

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

CONFERENCE PRESENTATIONS

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

Oral presentations:

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.*

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*

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*

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.*

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:

Srokova, S., Shahanawaz, N.S., & Rugg, M.D. (2023). Eye movements are associated with neural differentiation in scene-selective and object-selective cortical regions. *Society for Neuroscience, Washington D.C.*

Aktas, A.N.Z.*, **Srokova, S**., Koen, J.D., & Rugg, M.D. (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.*

Olivier, J.M.*, **Srokova, S.,** & Rugg, M. D. (2023). Moderating effects of cortical volume and thickness on retrieval-related scene reinstatement, *Society for Neuroscience, Washington D.C. * Mentored research assistant.*

Kidwai, A.*, **Srokova, S.,** & Rugg, M.D., (2023). FMRI correlates of retrieval gating of scene and object information, *Society for Neuroscience, Washington D.C. * Mentored graduate student.*

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*

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.*

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*

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***

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*

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*

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)*

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*

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)*

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*

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*

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*

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

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

MENTORING EXPERIENCE

Ambereen Kidwai, Doctoral student   2021 – present
Ayse Aktas, Research assistant   2022 – present
Joshua Olivier, Research assistant   2022 – present
Nehal Shahanawaz, Research assistant   2022 – present

Sandra Girgis, Masters student   2021
Salwa Shahid, Undergraduate student   2021
Miguel Talamo, Undergraduate student   2021
Harish Suryadevara, Undergraduate student   2020
Muneeza Sheikh, Undergraduate student   2020

PUBLIC OUTREACH

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

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

ADDITIONAL SKILLS AND TRAINING

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

Cognitive Neuroscience Society, Society for Neuroscience

AD HOC REVIEWER

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