

Cognitive Neuropsychology and Development University Trier – Learning brain lab

Publications

Preprints

Task-Switch Related Reductions in Neural Distinctiveness in Children and Adults: Commonalities and Differences.

Schwarze, S. A., Bonati, S., Cichy, R. M., Lindenberger, U., Bunge, S., & Fandakova, Y.

[URL](#) [PDF](#)

Intensive task-switching training and single-task training differentially affect behavioral and neural manifestations of cognitive control in children.

Schwarze, S. A., Laube, C., Khosravani, N., Lindenberger, U., Bunge, S. A., & Fandakova, Y.

[URL](#) [PDF](#)

Does prefrontal connectivity during task switching help or hinder children's performance?

Schwarze, S. A., Laube, C., Khosravani, N., Lindenberger, U., Bunge, S. A., & Fandakova, Y.

[URL](#) [PDF](#)

The neural correlates of the core number systems contribute to mathematical achievement in adolescence.

Abreu-Mendoza, R., Zarabozo-Hurtado, D., Chamorro, Y., Vasquez, P., Matute, E., & Fandakova, Y.

[URL](#) [PDF](#)

Journal Articles

2024

Normal aging of frontal lobes and executive functions

Fandakova, Y., Lindenberger U.

Encyclopedia of the Human Brain

[URL](#)

Skill learning in the developing brain: Interactions of control and representation systems

Fandakova, Y., Wenger, E.

Psychology of Learning and Motivation

[URL](#)

Cognitive flexibility across the lifespan: developmental differences in the neural basis of sustained and transient control processes during task switching

Schwarze, S.A., Fandakova, Y., Lindenberger, U.

Current Opinion in Behavioral Sciences

[URL](#)

The differential impact of active learning on children's memory.

Stanciu, O., Jones, A., Metzner, N., Fandakova, Y., Ruggeri, A.
Developmental Psychology

[URL](#)

2022

Individual differences fill the uncharted intersections between cognitive structure, flexibility, and plasticity in multitasking.

Broeker, L., Brüning, J., Fandakova, Y., Khosravani, N., Kiesel, A., Kubik, V., Kübler, S., Manzey, D., Monno, I., Raab, M., & Schubert, T.
Psychological Review

[URL](#) [PDF](#)

Expert validation of prediction models for a clinical decision-support system in audiology.

Buhl M, Akin G, Saak S, Eysholdt U, Radeloff A, Kollmeier B, Hildebrandt A.
Front Neurology

[URL](#)

2021

Distinct neural mechanisms underlie subjective and objective recollection and guide memory-based decision making.

Fandakova, Y., Johnson, E., & Ghetti, S.
eLife

[URL](#) [PDF](#)

Curiosity in development – what can we learn from the brain?

Gruber, M. & Fandakova, Y.
Current Opinion in Behavioral Sciences

[URL](#) [PDF](#)

Effects of age differences in memory formation on neural mechanisms of consolidation and retrieval.

Sander, M. C., Fandakova, Y., & Werkle-Bergner, M.
Seminars in Cell and Developmental Biology

[URL](#) [PDF](#)

Neural correlates of successful memory encoding in preschool and elementary school children: Longitudinal trends and effects of schooling.

Nolden, S., Brod, G., Meyer A.-K., Fandakova, Y., & Shing, Y.L.
Cerebral Cortex

[URL](#) [PDF](#)

The more, the merrier? What happens in your brain when you try to perform multiple tasks simultaneously.

Schwarze, S. A., Poppa, C., Gawronska, S. M., & Fandakova, Y.
Frontiers for Young Minds

[URL](#)

Curiosity and surprise enhance memory differently in adolescents than in children.

Fandakova, Y. & Gruber, M.
Developmental Science

[URL](#) [PDF](#)

Episodic memory training.

Wenger, E., Fandakova, Y., & Shing, Y. L.

In T. Strobach & J. Karbach (Eds.), *Cognitive training: An overview of features and applications*

[URL](#) [PDF](#)

2020

Neural development of memory and metamemory: Towards an integrative model of the development of episodic recollection.

Ghetti, S. & Fandakova, Y.

Annual Review of Developmental Psychology

[URL](#) [PDF](#)

Infant event-related potentials to speech are associated with prelinguistic development.

Kailaheimo-Lönnqvist, L., Virtala, P., Fandakova, Y., Partanen, E., Leppänen, P. H. T., Thiede, A., & Kujala, T.

Developmental Cognitive Neuroscience

[URL](#) [PDF](#)

The relationship between pubertal hormones and experience-dependent plasticity: Implications for cognitive training in adolescence.

Laube, C., van den Bos, W., & Fandakova, Y.

Developmental Cognitive Neuroscience

[URL](#) [PDF](#)

Mechanisms of learning and plasticity in childhood and adolescence.

Fandakova, Y., & Hartley, C. A.

Developmental Cognitive Neuroscience

[URL](#) [PDF](#)

(Only) time can tell: Age differences in false memory are magnified at longer delays.

Fandakova, Y., Werkle-Bergner, M. & Sander, M. C.

Psychology and Aging

[URL](#) [PDF](#)

Oscillatory mechanisms of successful memory formation in younger and older adults are related to structural integrity.

Sander, M. C., Fandakova, Y., Grandy, T. H., Shing, Y. L., & Werkle-Bergner, M.

Cerebral Cortex

[URL](#) [PDF](#)

Changes in anterior and posterior hippocampus differentially predict item-space, item-time, and item-item memory improvement.

Lee, J. K., Fandakova, Y., Johnson, E. G., Cohen, N., Bunge, S. A., & Ghetti, S.

Developmental Cognitive Neuroscience

[URL](#) [PDF](#)

Memory quality modulates the effect of aging on memory consolidation during sleep: Reduced maintenance but intact gain.

Muehlroth, B., Sander, M. C., Fandakova, Y., Grandy, T. H., Rasch, B., Shing, Y. L., & Werkle-Bergner, M.

Neuroimage

[URL](#) [PDF](#)

2019

Neural pattern similarity differentially affects memory performance of younger and older adults.

Sommer, V. R., Fandakova, Y., Grandy, T. H., Shing, Y. L., Werkle-Bergner, M., & Sander, M. C.

The Journal of Neuroscience

[URL](#) [PDF](#)

Neural specificity of scene representations is related to memory performance in childhood.

Fandakova, Y., Leckey, S., Driver, C. C., Bunge, S. A., & Ghetti, S.

NeuroImage

[URL](#) [PDF](#)

Precise slow oscillation-spindle coupling promotes memory consolidation in younger and older adults.

Muehlroth, B. E., Sander, M. C., Fandakova, Y., Grandy, T. H., Rasch, B., Shing, Y. L., & Werkle-Bergner, M.

Scientific Reports

[URL](#) [PDF](#)

Longitudinal Trajectories of Hippocampal and Prefrontal Contributions to Episodic Retrieval: Effects of Age and Puberty.

Selmeczy, D., Fandakova, Y., Grimm, K. J., Bunge, S. A., & Ghetti, S.

Developmental Cognitive Neuroscience

[URL](#) [PDF](#)

2018

Age differences in false memory: The importance of retrieval monitoring processes and their modulation by memory quality.

Fandakova, Y., Sander, M. C., Grandy, T. H., Cabeza, R., Werkle-Bergner, M., & Shing, Y. L.

Psychology and Aging

[URL](#) [PDF](#)

The importance of knowing when you don't remember: Neural signaling of retrieval failure predicts memory improvement over time.

Fandakova, Y., Bunge, S. A., Wendelken, C., Desautels, P., Hunter, L., Lee J. K., & Ghetti, S.

Cerebral Cortex

[URL](#) [PDF](#)

2017

Changes in ventromedial prefrontal and insular cortex support the development of metamemory from childhood into adolescence.

Fandakova, Y., Selmecky, D., Leckey, S., Grimm, K. J., Wendelken, C., Bunge, S. A., Ghetti, S.
Proceedings of the National Academy of Sciences of the United States of America

[URL](#) [PDF](#)

2016

What connections can we draw between research on long-term memory and student learning?

Fandakova, Y., & Bunge, S. A.
Mind, Brain, and Education

[URL](#) [PDF](#)

2015

Maintenance of youth-like processing protects against false memory in later adulthood.

Fandakova, Y., Lindenberger, U., & Shing, Y. L.
Neurobiology of Aging

[URL](#) [PDF](#)

2014

Deficits in process-specific prefrontal and hippocampal activations contribute to adult age differences in episodic memory interference.

Fandakova, Y., Lindenberger, U., & Shing, Y. L.
Cerebral Cortex

[URL](#) [PDF](#)

Age differences in short-term memory binding are related to working memory performance across the lifespan.

Fandakova, Y., Sander, M. C., Werkle-Bergner, M., & Shing, Y. L. *joint first authorship*
Psychology and Aging

[URL](#) [PDF](#)

2013

Differences in binding and monitoring mechanisms contribute to lifespan age differences in false memory.

Fandakova, Y., Shing, Y. L., & Lindenberger, U.
Developmental Psychology

[URL](#) [PDF](#)

High-confidence memory errors in old age: The roles of monitoring and binding processes.

Fandakova, Y., Shing, Y. L., & Lindenberger, U.
Memory

[URL](#) [PDF](#)

2012

Heterogeneity in memory training improvement among older adults: A latent class analysis.

Fandakova, Y., Shing, Y. L., & Lindenberger, U.
Memory

[URL](#) [PDF](#)

2011

Hippocampal subfield volumes: Age, vascular risk, and correlation with associative memory.

Shing, Y. L., Rodrigue, K. M., Kennedy, K. M., Fandakova, Y., Bodammer, N., Werkle- Bergner, M., Lindenberger, U., & Raz, N.

Frontiers in Aging Neuroscience

[URL](#) [PDF](#)

Age differences in speed of processing are partially mediated by differences in axonal integrity.

Burgmans, S., Gronenschild, E. H. B. M., Fandakova, Y., Shing, Y. L., van Boxtel, M. P. J., Vuurman, E. F. P. M., Uylings, H. B. M., Jolles, J., & Raz, N.

NeuroImage

[URL](#) [PDF](#)

Book Chapters

Memory

Fandakova, Y., & Ghetti, S. (2017)

In B. Hopkins, E. Geangu, & S. Linkenauger (Eds.), *The Cambridge Encyclopedia of Child Development* (pp. 322 – 330). Cambridge, UK: Cambridge University Press.

[PDF](#)

Episodic memory across the lifespan: General trajectories and modifiers.

Fandakova, Y., Lindenberger, U., & Shing, Y. L. (2015)

In D. R. Addis, M. D. Barense, & A. Duarte (Eds.) *The Wiley handbook on the cognitive neuroscience of memory* (pp. 309–325). Hoboken, NJ: Wiley-Blackwell Press.

[PDF](#)

Poster Presentation

2023

How do children and adults differ in types of errors and post-error slowing during task-switching?

Akin, G., Fandakova, Y., Schwarze, S.A.

Specialist Group Meeting Developmental Psychology EPSY