

# H.N. Alexander Logemann

## Associate Professor

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## ACADEMIC DEGREES

Habilitation (Eötvös Loránd University, 2021).

PhD (Utrecht University, title of dissertation: The pharmacology of visuospatial attention and inhibition)

Master of Science (2-year Research Master) in Cognitive Neuroscience (Utrecht University)

Bachelor of Science in Psychology (Utrecht University)

## WORK EXPERIENCE

Year	Organization	Position
2021 - present	Eötvös Loránd University (ELTE), Hungary	Associate Professor
2024 - present	VU University Amsterdam	Lecturer (clinical psychology)
2016 – 2021	Eötvös Loránd University (ELTE), Hungary	Senior Research Fellow
2017- present	Minder (minder.hu)	Co-founder and Senior Researcher
2015 - 2016	VU University Amsterdam	Lecturer (research methodology)
2014 - 2017	Adapting Minds (www.adaptingminds.nl)	Founder & CEO
2014 - 2015	University Medical Center Utrecht	Postdoctoral researcher / project manager
2012 - 2014	Utrecht University, dept. of Experimental Psychology	Postdoctoral researcher
2008 - 2012	Utrecht University, dept. of Psychopharmacology / Experimental Psychology	PhD student

## RESEARCH AGENDA (in brief)

Executive functions are higher order processes, including (but not limited to) inhibitory control, attention, working memory and task switching. These are key processes that drive adaptive goal-directed behaviour. In our lab we focus on gaining insight into the brain mechanism that drives these processes, and on how environmental conditions (e.g. reward contexts) in interaction with subject conditions (e.g. addiction) affect the aforementioned processes. Our projects follow a multidisciplinary approach, combining various tools and methods from cognitive neuroscience, ranging from online implementations to lab-studies including brain-activity assessments and neuromodulatory (e.g. tDCS, tACS, EEG-feedback) approaches.

## SPECIFIC SKILLS

- Electrophysiology (Event Related Potentials, FFT).
- Development / implementation of cognitive psychological tasks.
  - Offline / lab: Opensesame/python; Presentation (neurobehavioural systems).
  - Online: Psytoolkit.
- Data processing. (R, Python, Matlab).
- Statistics: R/JASP/SPSS.
- Development of (ethics)protocols for Clinical Trials / psychological research.
- Good Clinical Practice (GCP) certificate. Obtained by the Bureau Quality Assurance for Clinical Trials of the University Medical Center Utrecht, located at the Department of Clinical Trial Services Unit of the Julius Center for Health Sciences and Primary Care in co-operation with the division of Internal Medicine and Dermatology.
- Course on Regulations and Organization of Clinical Trials (BROK, UMCU). Certified (ID 5816) on 12-10-2010 until 22-10-2014. Recertification on 13-01-2015
- Academic Teaching Excellence “English as the Medium of Instruction” development course for higher education lecturers to increase teaching efficiency through developing English language skills and teaching methodology delivered by the British Council (certificate attained in 2017)

## OTHER ACADEMIC ACTIVITIES

- Head of the Executive Functions Research Group at the Institute of Psychology, ELTE University.
- Chair of examination committees for the BA, MA and Doctoral (psychology) Program at ELTE University.
- Responsible party for the bi-yearly PhD Progress conference (for the Clinical Psychology and Addiction program) at ELTE University.
- Invited reviewer for several academic peer reviewed journals, e.g. "Journal of Behavioral Addictions", "Journal of Neuropsychology", "Journal of Autism and Developmental Disorders", "Substance Abuse", and "Psychophysiology".
- Editorial board member “ADDICTA: The Turkish Journal on Addictions”

## GRANTS OBTAINED

- 2020 - Faculty grant application** for internationalization: financial support for invited professional (Prof. Stoet from Essex University (UK), and developer of Psytoolkit).
- 2019 – OTKA K\_19.** Financial support for 4-year project on elucidating the mechanisms of frontal EEG asymmetry in relation to self-regulation (45.143.000 HUF / approx.. 124.500 EUR)
- 2018 - Faculty grant** for internationalization: financial support for invited professional (Prof. Kenemans, head of dept. of experimental psychology at Utrecht University, The Netherlands) in the context of a brief local conference on Executive Functions in relation to addiction and obesity
- 2018 – Erasmus mobility grant.** Provision of in-depth lectures on behavioural change at the University of Helsinki, Finland.

## SUMMARY OF TEACHING EXPERIENCE

### At Eötvös Loránd University (ELTE)

Courses	Program	Type	Year(s)
Research Methods in Cognitive Psychology: From experiment development to data processing	Doctoral	Practical	2022 – current
Cognitive psychological experiment design including electrophysiological (brain activity) recordings	Doctoral	Practical	2022 -current
Research Methods in Clinical Psychology: Current Research Issues in Clinical Psychology	Doctoral	Practical	2019 – 2021
Project Work (from Middle European Interdisciplinary MA program in Cognitive Science; meicogscie.eu)	MA	Practical	2019 – current
Neuropsychology	MA (spring)	Lecture	2018
Introduction to Adult and Child Clinical Psychology	BA	Lecture	2017 - current
Research Field practice	BA (spring, autumn)	Practical	2017 - current
Clinical Psychology	BA (spring)	Lecture	2016 - current
Research Methods I	BA (spring, autumn)	Practical	2016 - current
Health Psychology	BA (spring)	Practical	2016
Cognitive Psychology III	BA (spring)	Lecture	2016 - current
Cognitive Developmental Neuroscience II	MA (autumn)	Practical	2016 – 2018
Scientific Writing	Doctoral (autumn)	Practical	2016 - 2018

Supervision of PhD students:	Years
Putri Sibron	2022 - 2026
Mega Watty	2022 - 2026
Atanas Tannous	2021 - 2025
Bogárka Vekety	2017 - 2021
Guo Cuiling	2016 - 2020
Irmelin Hovland-Hegg	2016 - 2020
Afework Tsegaye Abebe	2016 - 2020

2016 - current

BA / MA thesis supervision

### At VU University, Amsterdam

Courses	Program	Type	Year(s)
Research Methodology 2	BA	Practical	2016
Leadership and Cooperation	BA	Practical	2016
Statistics 2	BA	Practical	2015-2016
Test theory 2	BA	Practical	2015-2016
E-testing (Opensesame / Python)	BA	Practical	2015-2016

## At Utrecht University

Courses	Program	Type	Year(s)
Matlab programming	BA/MA	Practical	2008-2014
EEG-acquisition / analysis workshops	MA	Practical	2008–2014 (once a year)
Thesis supervision	BA	Practical	2008-2013

## PUBLICATIONS

- Kenemans, J. L., Schutte, I., van Bijnen, S., & Logemann, H. N. A. (2023). How salience enhances inhibitory control: An analysis of electro-cortical mechanisms. *Biological Psychology*, *177*, 108505. <https://doi.org/10.1016/J.BIOPSYCHO.2023.108505>
- Logemann-Molnár, Z., Akil, A. M., Cserjési, R., Nagy, T., Veres-Székely, A., Demetrovics, Z., & Logemann, A. (2022). Dispositional Mindfulness and Inhibitory Control after Perceiving Neutral, Food and Money Related Stimuli. *International Journal of Environmental Research and Public Health*, *19*(4), 2201.
- Logemann-Molnár, Z., Veres-Székely, A., Demetrovics, Z., & Logemann, H. N. A. (2022). Seeing attractive faces challenges inhibitory control, especially when mindful. *PLOS ONE*, *17*(9), e0273913-. <https://doi.org/10.1371/journal.pone.0273913>
- Vekety, B., Logemann, A., & Takacs, Z. K. (2022). Mindfulness Practice with a Brain-Sensing Device Improved Cognitive Functioning of Elementary School Children: An Exploratory Pilot Study. *Brain Sciences*, *12*(1). <https://doi.org/10.3390/brainsci12010103>
- Akil, A. M., Ujhelyi, A., & Logemann, H. N. A. (2022). Exposure to Depression Memes on Social Media Increases Depressive Mood and It Is Moderated by Self-Regulation: Evidence From Self-Report and Resting EEG Assessments. *Frontiers in Psychology*, *13*. <https://doi.org/10.3389/fpsyg.2022.880065>
- Tsegaye, A., Guo, C., Stoet, G., Cserjési, R., Kokonyei, G., & Logemann, H. N. A. (2022). The relationship between reward context and inhibitory control, does it depend on BMI, maladaptive eating, and negative affect? *BMC Psychology*.
- Lacroix, A., Dutheil, F., Logemann, A., Cserjesi, R., Peyrin, C., Biro, B., ... Mermillod, M. (2021, November 5). Flexibility in autism during unpredictable shifts of socio-emotional stimuli. Investigation of group and sex differences. <https://doi.org/10.31234/osf.io/r7d8t> (Accepted in Autism)
- Vekety B, Logemann HNA, Takacs ZK. The effect of mindfulness-based interventions on inattentive and hyperactive-impulsive behavior in childhood: A meta-analysis. *International Journal of Behavioral Development*. 2021;45(2):133-145. doi:10.1177/0165025420958192
- Biró, B., Kokonyei, G., de Oliveira Negrao, R., Dancsik, A., Karsai, S., Logemann, A., & Cserjesi, R. (2021). Interaction between emotional context-guided shifting and cognitive shifting. *Neuropsychopharmacologia Hungarica*, *23*(2), 307–318.
- Tsegaye A, Guo C, Cserjési R, Kenemans L, Stoet G, Kökönyei G, Logemann A. Inhibitory Performance in Smokers Relative to Nonsmokers When Exposed to Neutral, Smoking- and Money-Related Pictures. *Behav Sci (Basel)*. 2021 Sep 22;11(10):128. doi: 10.3390/bs11100128. PMID: 34677220; PMCID: PMC8533572.
- Guo, C., Tsegaye, A., Arató, J., and Logemann, H. N.A. (2021). The role of attention, inhibition and statistical learning in Chinese character recognition by novices. *Curr. Res. Behav. Sci.* *2*, 100012. doi:10.1016/j.crbeha.2020.100012.
- Tsegaye, A., Bjørne, J., Winther, A., Kökönyei, G., Cserjési, R., and Logemann, H. N. A. (2020). Attentional bias and disengagement as a function of Body Mass Index in conditions that differ in anticipated reward. *J. Behav. Addict.* doi:10.1556/2006.2020.00073.

- Biró, B., Logemann, H. N. A., Kökönyei, G., & Renáta, C. (2018). Érzelmi váltás vizsgálata az érzelmszabályozási nehézségek és a rumináció tükrében. *Conference: VÁLTOZÁS AZ ÁLLANDÓSÁGBAN A Magyar Pszichológiai Társaság XXVII. Országos Tudományos Nagygyűlése.*
- Schönenberg, M., Wiedemann, E., Schneidt, A., Scheeff, J., Logemann, A., Keune, P. M., & Hautzinger, M. (2017). Neurofeedback, sham neurofeedback, and cognitive-behavioural group therapy in adults with attention-deficit hyperactivity disorder: a triple-blind, randomised, controlled trial. *The Lancet Psychiatry*, *0366*(17), 1–12. [https://doi.org/10.1016/S2215-0366\(17\)30291-2](https://doi.org/10.1016/S2215-0366(17)30291-2)
- Schönenberg, M., Wiedemann, E., Schneidt, A., Scheeff, J., Logemann, A., Keune, P. M., & Hautzinger, M. (2017). Confusion regarding operant conditioning of the EEG – Authors’ reply. *The Lancet Psychiatry*. [https://doi.org/10.1016/S2215-0366\(17\)30437-6](https://doi.org/10.1016/S2215-0366(17)30437-6)
- Littel, M., Kenemans, J. L., Baas, J. M. P., Logemann, H. N. A., Rijken, N., Remijn, M., ... van den Hout, M. A. (2017). The Effects of  $\beta$ -Adrenergic Blockade on the Degrading Effects of Eye Movements on Negative Autobiographical Memories. *Biological Psychiatry*. <https://doi.org/10.1016/j.biopsych.2017.03.012>
- Logemann, H. N. A., Böcker, K. B. E., Deschamps, P. K. H., van Harten, P. N., Koning, J., Kemner, C., ... Kenemans, J. L. (2016). Haloperidol 2 mg impairs inhibition but not visuospatial attention. *Psychopharmacology*. <https://doi.org/10.1007/s00213-016-4454-z>
- Logemann, H. N. A., Böcker, K. B. E., Deschamps, P. K. H., Kemner, C., & Kenemans, J. L. (2014). The effect of enhancing cholinergic neurotransmission by nicotine on EEG indices of inhibition in the human brain. *Pharmacology Biochemistry and Behavior*, *122*. <https://doi.org/10.1016/j.pbb.2014.03.019>
- Logemann, H. N. A., Böcker, K. B. E., Deschamps, P. K. H., Kemner, C., & Kenemans, J. L. (2014). Differences between nicotine-abstinent smokers and non-smokers in terms of visuospatial attention and inhibition before and after single-blind nicotine administration. *Neuroscience*, *277*. <https://doi.org/10.1016/j.neuroscience.2014.07.016>
- Logemann, H. N. A., Böcker, K. B. E., Deschamps, P. K. H., Kemner, C., & Kenemans, J. L. (2014). The effect of attenuating noradrenergic neurotransmission by clonidine on brain activity measures of visuospatial attention. *Human Psychopharmacology*, *29*(1). <https://doi.org/10.1002/hup.2367>
- Logemann, H. N. A., Böcker, K. B. E., Deschamps, P. K. H., Kemner, C., & Kenemans, J. L. (2014). The effect of the augmentation of cholinergic neurotransmission by nicotine on EEG indices of visuospatial attention. *Behavioural Brain Research*, *260*. <https://doi.org/10.1016/j.bbr.2013.11.044>
- Logemann, H. N. A., Böcker, K. B. E., Deschamps, P. K. H., Kemner, C., & Kenemans, J. L. (2013). The effect of noradrenergic attenuation by clonidine on inhibition in the stop signal task. *Pharmacology Biochemistry and Behavior*, *110*, 104–111. <https://doi.org/10.1016/j.pbb.2013.06.007>
- Logemann, H. N. A., Lansbergen, M. M., Van Os, T. W. D. P., Böcker, K. B. E., & Kenemans, J. L. (2010). The effectiveness of EEG-feedback on attention, impulsivity and EEG: A sham feedback controlled study. *Neuroscience Letters*, *479*(1). <https://doi.org/10.1016/j.neulet.2010.05.026>

### Book chapters

- Logemann, H. N. A., Cserjesi, R., Kökönyei, G., & Demetrovics, Z. (2020). Az obezitás addiktológiai vonatkozásai. In *Az obezitológia pszichológiai aspektusai* (p. in press). Budapest: Semmelweis Kiadó.
- Tsegaye, A., Kökönyei, G., Baldacchino, A., Urbán, R., Demetrovics, Z., & Logemann, H. N.A. (2020). The psychological basis of obesity. In & F. T. A. Mahmood, S. Arulkumaran & (Eds.) Chervenak (Eds.), *Obesity and obstetrics* (p. in press). London: Elsevier Science.