

## Academic Curriculum Vitae and Publication List

**Dr.rer.nat Sarah Schuster**

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### Main areas of research

Neural correlates of visual word recognition and eye movement control during reading

### Education

2013-2018	Study of Psychology – Doctoral programme at the University of Salzburg
2011-2013	Study of Psychology – Master programme at the University of Salzburg
2008-2011	Study of Psychology – Bachelor programme at the University of Salzburg
2000-2008	Secondary school, Bundesgymnasium Vöcklabruck

### Professional experience

since 2018	Senior Scientist at the Centre for Cognitive Neuroscience, University of Salzburg under the supervision of Univ.-Prof. Florian Hutzler
2016	3 month research stay at the D.I.N.E laboratory at the Freie Universität Berlin under the supervision of Univ.-Prof. Dr. Arthur Jacobs
2013-2018	PhD student at the Centre for Cognitive Neuroscience, University of Salzburg under the supervision of Univ.-Prof. Florian Hutzler
2011-2013	Research assistant at the University of Salzburg in the Department of Psychology
2011-2012	Student assistant in the project “ <i>Item-development for the evaluation of the education standards for the 4<sup>th</sup> and 8<sup>th</sup> Grade</i> ” at the Bundesinstitut für Bildungsforschung, Innovation und Entwicklung des österreichischen Schulsystems under the supervision of Univ.-Prof. Dr. Karin Landerl

### Awards

2016	Scholarship of the G.-A.-Lienert foundation for supporting young investigators in bio-psychological methods
2014	Marie-Andeßner-Award for Diploma or Master Theses in the Natural Sciences

## **Talks**

- Schuster, S. (2013, April). The lexicality effect in the left ventral occipito-temporal cortex: Evidence from fixation-related fMRI. Presentation at the 11<sup>th</sup> meeting of the Österreichische Gesellschaft für Psychologie (ÖGP), Vienna, Austria.
- Schuster, S. (2015, August). Words in context: The effects of word length, frequency and predictability on brain responses during natural reading. Presentation at the 18<sup>th</sup> European Conference on Eye Movements (ECEM), Vienna, Austria.
- Schuster, S. (2016, September). Words in context: The effects of word length, frequency and predictability on brain responses during natural reading. Presentation at the annual meeting of the British Association for Neuroscience (BACN), Budapest, Hungary.
- Schuster, S. (2017, August). The effects of cloze probability and semantic congruency on brain responses during natural reading: A fixation-related fMRI study. Presentation at the 19<sup>th</sup> European Conference on Eye Movements (ECEM), Wuppertal, Germany.
- Schuster, S. (2018, July). How sentence comprehension guides eye movement control. Presentation at the Society for Text & Discourse (ST&D), Brighton, United Kingdom.

SYMPOSIUM: Eye tracking as a tool to study digital reading, Freie Universität Berlin 18-19th April 2019

## **Technical skills**

Data acquisition: Eye-tracking, fMRI (as well as combined Eye-Tracking and fMRI) and EEG

Programming: SPM (advanced), R (advanced), Matlab (intermediate), and Python (intermediate)

## **Miscellaneous**

2018/2019 Participation in the local organizing committee of the 2<sup>nd</sup> & 3<sup>rd</sup> Salzburg Mind-Brain Annual Meeting (SAMBA)

## Publications

- Hawelka, S., **Schuster, S.**, Gagl, B., & Hutzler, F. (2013). Beyond single syllables. The effect of first syllable frequency and orthographic similarity on eye movements during silent reading. *Language and Cognitive Processes*, 28(8), 1134-1153.
- Richlan F., Gagl B., **Schuster, S.**, Hawelka, S., Humenberger, J., & Hutzler, F. (2013). A new high speed visual stimulation method for gaze-contingent eye movement and brain activity studies. *Frontiers in Systems Neuroscience*, 7:24.
- Hutzler, F., Fuchs, I., Gagl, B., **Schuster, S.**, Richlan, F., Braun, M., & Hawelka, S. (2013). Parafoveal X-masks interfere with foveal word recognition: Evidence from fixation-related brain potentials. *Frontiers in Systems Neuroscience*, 7:33.
- Gagl, B., Hawelka, S., Richlan, F., **Schuster, S.**, & Hutzler, F. (2014). Parafoveal preprocessing in reading revisited: Evidence from a novel preview manipulation. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 40(2), 588-595.
- Marx, C., Hawelka, S., **Schuster, S.**, & Hutzler, F. (2015). An incremental boundary study on parafoveal preprocessing in children reading aloud: Parafoveal masks overestimate the preview benefit, *Journal of Cognitive Psychology*, 27(5), 549-561.
- Hawelka, S., **Schuster, S.**, Gagl, B., & Hutzler, F. (2015). On forward inferences of fast and slow readers. An eye movement study, *Scientific Reports*, 5:8432
- Schuster, S.**, Hawelka, S., Richlan, F., Ludersdorfer, P., & Hutzler, F. (2015). Eyes on words: A fixation-related fMRI study of the left occipito-temporal cortex during self-paced silent reading of words and pseudowords, *Scientific Reports*, 5:12686.
- Schuster, S.**, Hawelka, S., Hutzler, F., Kronbichler, M., & Richlan, F. (2016). Words in context: The effects of length, frequency and predictability on brain responses during natural reading. *Cerebral Cortex*, 26(10), 3889-3904.
- Marx, C., Hutzler, F., **Schuster, S.**, & Hawelka, S. (2016). On the development of parafoveal preprocessing: Evidence from the incremental boundary paradigm. *Frontiers in Psychology*, 7:514.
- Marx, C., Hawelka, S., **Schuster, S.**, Hutzler, F. (2017). Foveal processing difficulty does not affect parafoveal preprocessing in young readers. *Scientific Reports*, 7:41602.
- Jacobs, A.M., **Schuster, S.**, Xue, S., & Lüdtke J. (2017). What's in the brain that ink may character ... A quantitative narrative analysis of Shakespeare's 154 sonnets for use in (Neuro-)cognitive poetics. *Scientific Study of Literature*, 7(1), 4-51.
- Hutzler, F., **Schuster, S.**, Marx, C., & Hawelka, S. (2019). An investigation of parafoveal masks with the incremental boundary paradigm. *PloSOne*, 14(2), e0203013.
- Himmelstoss, N.A., **Schuster, S.**, Hutzler, F., Moran, R., & Hawelka, S. (2019). Co-registration of eye movements and neuroimaging for studying contextual predictions in natural reading. *Language, Cognition and Neuroscience*, 1-18.

- Rafetseder, E., **Schuster, S.**, Hawelka, S., Doherty, M., Anderson, B., Danckert, J., Stöttinger, E. (2019). Children struggle beyond preschool-age in a continuous version of the ambiguous figures task. *Psychological Research*, 1-14.
- Schuster, S.**, Hawelka, S., Himmelstoss, N.A., Richlan, F., & Hutzler, F. (2020). The neural correlates of word position and lexical predictability during sentence reading: evidence from fixation-related fMRI. *Language, Cognition and Neuroscience*, 35(5), 613-624.
- Schuster, S.**, Himmelstoss, N.A., Hutzler, F., Richlan, F., Kronbichler, M., & Hawelka, S. (2021). Cloze enough? Hemodynamic effects of predictive processing during natural reading. *NeuroImage*, 228, 117687.
- Leitner, M.C., Hutzler, F., **Schuster, S.**, Vignali, L., Marvan, P., Reitsamer, H.A., & Hawelka, S. (2021). Eye-tracking-based visual field analysis (EFA): a reliable and precise perimetric methodology for the assessment of visual field defects. *BMJ Open Ophthalmology*, 6 (1), e000429.
- Hutzler, F., Richlan, F., Leitner, M.C., **Schuster, S.**, Braun, M., & Hawelka, S. (2021). Anticipating trajectories of exponential growth. *Royal Society open science*, 8(4), 201574.
- Leitner, M.C., Meurer, V., Hutzler, F., **Schuster, S.**, & Hawelka, S. (2022). The effect of masks on the recognition of facial expressions: A true-to-life study on the perception of basic emotions. *Frontiers in psychology*, 13, 933438.
- Weiss, K.L., Hawelka, S., Hutzler, F., & **Schuster, S.** (2023). Stronger functional connectivity during reading contextually predictable words in slow readers. *Scientific Reports*, 13(1), 5989.
- Bruckner, R., **Schuster, S.**, & Hutzler, F. (2024). Sexual prejudice in adolescence: The role of parent-adolescent relationship quality and callous-unemotional traits on sexual prejudice in adolescence. *Frontiers in Developmental Psychology*, 1, 1284404.