

MARVIN RAINER MAECHLER

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EDUCATION

Dartmouth College

September 2017 - Present

PhD Candidate in Cognitive Neuroscience

Advisor: Prof. Dr. Peter U. Tse

Secondary Advisor: Prof. Dr. Patrick Cavanagh

Dartmouth College

September 2017 - June 2021

Master of Arts in Psychological and Brain Sciences

Advisor: Prof. Dr. Peter U. Tse

Thesis: *Attentional Tracking Operates Over Perceptual, Not Retinotopic Coordinates*

University of Regensburg

October 2014 - September 2017

Bachelor of Science in Psychology

Thesis advisor: Prof. Dr. Mark Greenlee

Thesis: *Differences in Brain Activity During Different Arithmetic Operations: an fMRI Study*

PUBLICATIONS

Journal Articles

Desrochers, T. M., Ahuja, A., **Maechler, M. R.**, Shires, J., Yusif Rodriguez, N., & Berryhill, M. E. (2022). Caught in the ACTS: Defining Abstract Cognitive Task Sequences as an Independent Process. *Journal of Cognitive Neuroscience*, 34(7), 1103-1113.

Maechler, M. R., Heller, N. H., Lisi, M., Cavanagh, P., & Tse, P. U. (2021). Smooth pursuit operates over perceived not physical positions of the double-drift stimulus. *Journal of Vision*, 21(11), 6.
<https://doi.org/10.1167/jov.21.11.6>

Maechler, M.R., Cavanagh, P., & Tse, P.U. (2021). Attentional tracking takes place over perceived rather than veridical positions. *Attention, Perception, & Psychophysics*, 83(4) 1455-1462.
<https://doi.org/10.3758/s13414-020-02214-9>

Erlikhman, G., Lytchenko, T., Heller, N., **Maechler, M.R.**, & Caplovitz, G.P. (2020). Object-Based Attention Generalizes to Multisurface Objects. *Attention, Perception, & Psychophysics*, 82(4), 1599-1612.
<https://doi.org/10.3758/s13414-019-01964-5>

GRANTS & AWARDS

2022 Marie A. Center 1982 Award for Excellence in Research

2019 Travel Grant for the 2019 European Conference on Visual Perception

RESEARCH PRESENTATIONS

Conference Talks

- Maechler, M.R., Cavanagh, P., Tse, P.U., (2021) What is the Source of the Perceptual Error in the Double-Drift Illusion? *Presentation at the European Conference on Visual Perception 2021, online*
- Maechler, M.R., Kieseler, M., Smith, J., Taylor, M., Wolfe, S., Hipp, S.C., Harris, C., McDermott, J., Simpson, A., Souter, S., Fang, J., Goff, M., Edelman, D., Missal, M., & Tse, P.U. (2019). Octopuses Perceive Second-Order Motion: Evidence for Convergent Evolution of Visual Systems. *Presentation at the European Conference on Visual Perception 2019, Leuven, Belgium*
- Maechler, M.R., Kieseler, M., Smith, J., Taylor, M., Wolfe, S., Hipp, S.C., Simpson, A., Souter, S., Fang, J., Goff, M., Edelman, D., Missal, M., & Tse, P.U. (2019). Octopuses Perceive Second-Order Motion: Evidence for Convergent Evolution of Visual Systems. *Presentation at the Vision Sciences Society meeting 2019, St. Petersburg, FL, USA*

Poster Presentations

- Maechler, M.R., Heller, N.H., Lisi, M., Cavanagh, P., Tse, P.U. (2021). Smooth Pursuit Stabilizes Objects in Perceptual and not Retinal Coordinates. doi: <https://doi.org/10.1167/jov.21.9.2200> *Poster presented at Vision Sciences Society Meeting 2021, online*
- Maechler, M.R., Cavanagh, P., & Tse, P.U. (2018). Covert Attentional Tracking Operates Over Perceptual Coordinates not Retinotopic Coordinates. *Poster presented at the European Conference on Visual Perception 2018, Trieste, Italy.*
- Maechler, M.R., Malloni, W., & Greenlee, M.W. (2017). The Possible Role of Area LO1 in Numerical Cognition. *Poster presented at the European Conference on Visual Perception 2017, Berlin, Germany.*

TEACHING EXPERIENCE

Dartmouth College

Graduate Teaching Apprentice

Perception (TA, Lab Instructor)	<i>Fall 2020</i>
Systems Neuroscience with Laboratory (TA, Guest Lecturer, Lab Instructor)	<i>Winter 2020</i>
Laboratory in Psychological Science (TA, Guest Lecturer, Lab Instructor)	<i>Summer 2019</i>
Laboratory in Psychological Science (TA, Guest Lecturer, Lab Instructor)	<i>Fall 2018</i>

University of Regensburg

Undergraduate Teaching Assistant

Introduction to Psychology 1 part II (TA and Guest Lecturer)	<i>Summer 2017</i>
Introduction to Psychology 1 part I (TA and Guest Lecturer)	<i>Winter 2016/2017</i>
Scientific research with fMRI (TA)	<i>Summer 2017</i>
Scientific research with fMRI (TA)	<i>Winter 2016/2017</i>

ACADEMIC SERVICE

Peer Reviewer

Journal of Illusion	<i>since 2021</i>
Communications Biology	<i>since 2021</i>

Thesis Supervision

Brody McNutt - *First Non-Invasive Recording of Visual Evoked Potentials in Octopus Bimaculoides*