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Biological Psychology and Neuroergonomics
Technical University Berlin
Fasanenstr. 1
10623 Berlin
Germany
phone: +49 176 25907207
email: martin.riemer@tu-berlin.de

homepage: martinriemer.com
Web of Science Researcher ID: AAK-1399-2020

Martin Riemer

Education

02/2013	Ph.D. in Psychology, University of Mannheim (summa cum laude)
02/2009	Diploma in Psychology, University of Mannheim
2003-2009	Courses in Psychology, University of Mannheim
2002-2003	Courses in Physics, University of Heidelberg

Employments and Work Experiences

since 2021	Principal Investigator (Research Project: Time-space interference) at the Department of Biological Psychology and Neuroergonomics, Technical University Berlin
2022-2023	Professor at the Department of Cognitive Psychology and Ergonomics, Technical University Berlin
2018-2021	Postdoctoral Researcher at the Department of Experimental Psychology, University of Groningen, Netherlands
2014-2018	Postdoctoral Researcher at the German Center for Neurodegenerative Diseases (DZNE), Magdeburg
2008-2013	Research Assistant at the Otto-Selz-Institute (Laboratory for Clinical Psychophysiology), University of Mannheim
2006-2007	Internship at the Brain Research Laboratory, University of Vienna, Austria. *Project: Subliminal release of the feedback-related negativity (FRN)*

Funding ID and Awards

2021-2025	Research Grant for project '*Age-related changes in time-space interferences and their relation to dysfunctions of the medial temporal lobe*'. Funding body: German Research Foundation (DFG)
2019-2021	Research Grant for project '*Time perception in real-life scenarios and its value for clinical diagnostics of early-stage dementia*'. Funding body: German Research Foundation (DFG)
2017-2020	Research Grant for project '*Resolving complex decisions via planning and associative value generalisation*' (with PD Dr. Gerhard Jocham). Funding body: Center for Behavioral Brain Sciences (CBBS)
2016-2018	Research Grant for project '*AGETIME*'. Funding body: Europäische Sozialfonds (ESF)
2014	Travel Grant for the International Conference on Timing & Time Perception in Korfu, Greece. Funding body: GlaxoSmithKline Stiftung (GSK)
2011-2013	Doctoral scholarship (LGFG) from the University of Mannheim
2012	Baden-Württemberg-Certificate for University Didactics
2009	Otto-Selz-Award of the Faculty of Social Sciences (University of Mannheim)

Teaching and Supervisions

2022-2023 Representation of the department of Cognitive Psychology and Ergonomics at the TU Berlin (9 SWS, including courses on "*Kognitive Ergonomie und Usability Testing*", "*Methoden des Usability Engineering und Testing*", "*Special Topics in Cognitive Psychology*")

since 2014 Supervision of 6 PhD, 8 MSc and 6 BSc theses at the Universities of Magdeburg and Groningen, and at the TU Berlin

2010-2021 Various MSc and BSc courses at the Universities of Mannheim, Magdeburg and Groningen, including courses on "*Somatoforme und stressbedingte Störungen*", "*Körperwahrnehmung und Stress*", "*Klinische Diagnostik*", "*Affektive Störungen*", "*Klinische Psychologie*", "*Methods in Experimental Psychology and Psychophysics*", "*Spatial Cognition*"

Organisation of Conferences, Workshops and Symposia

2023 Temporal and Multisensory Processing in Virtual Reality. *Symposium at the 3rd Conference of the Timing Research Forum (TRF3) in Lisboa, Portugal*

2023 Time and Timing in Human-Computer Interaction. *Workshop at the Mensch und Computer (MuC) conference in Rapperswil, Switzerland* (DOI: 10.18420/muc2023-mci-ws05-106)

2018 2nd Interdisciplinary Symposium on Spatial Cognition in Aging and Neurodegeneration (iSCAN). *Research conference held at the DZNE Magdeburg, Germany*

2017 Interrelations between the Representation of Time and Space. *Symposium at the 1st Conference of the Timing Research Forum (TRF) in Strasbourg, France*

2015 The Body in Space. *Symposium at the IV International Conference on Spatial Cognition (ICSC) in Rome, Italy*

2012 New Applications for the Rubber Hand Illusion. *Symposium at the 54th TeaP in Mannheim, Germany*

Invited Talks

2022 Time-space interferences in virtual reality. *Vernetzungs-Workshop "Zeitforschung und Mensch-Maschine-Interaktion", University of Regensburg, Germany*

2021 Time perception in real-life scenarios and its value for clinical diagnostics. *German Center for Neurodegenerative Diseases (DZNE), Magdeburg, Germany*

2019 Age-related changes in the memory for temporal intervals. *Symposium "Time and the Brain" in Bochum, Germany*

2018 Neural representations of time and space. *University of Tübingen, Germany*

2015 A 'view from nowhen' on negative errors in time reproduction. *Research Centre for Computational Neuroscience and Cognitive Robotics (CNCR), University of Birmingham, UK*

Memberships

Timing Research Forum (TRF); Society for Neuroscience (SfN); German Society for Psychologists (DGPs); International Society for Psychophysics (ISP); Center for Behavioral Brain Sciences (CBBS); Bernstein Center for Computational Neuroscience (BCCN)

Review Activities

Adv Cogn Psychol, Atten Percept Psychophys, Behav Brain Res, Behav Res Methods, Cognition, Conscious Cogn, Curr Biol, Exp Brain Res, Front Psychol, In Mind, J Exp Psychol, J Neurosci, NeuroImage, PLOS ONE, Psychol Neurosci, Psychol Res, Q J Exp Psychol, Scand J Psychol, Timing Time Percept, a.o.

Publications

Peer-reviewed journal articles

Bogon, J., Högerl, J., Kocur, M., Wolff, C., Henze, N., & **Riemer, M.** (2023). Validating virtual reality for time perception research: Virtual reality changes expectations about the duration of physical processes, but not the sense of time. *Behavior Research Methods*: https://doi.org/10.3758/s13428-023-02201-6.

Riemer, M. (2023). Interval timing in virtual reality: Merits, goals, and premises. *Mensch und Computer 2023 - Workshopband. DOI: 10.18420/muc2023-mci-ws05-433. GI. MCI-WS05: Time and Timing in Human-Computer Interaction. Rapperswil. 3.-6. September 2023*

Bublatzky, F., Allen, P., & **Riemer, M.** (2023). Spatial navigation under threat: Aversive apprehensions improve route retracing in higher versus lower trait anxious individuals . *Frontiers in Psychology*, 14: 1166594.

Riemer, M., Achtzehn, J., Kuehn, E., & Wolbers, T. (2022). Cross-dimensional interference between time and distance during spatial navigation is mediated by speed representations in intraparietal sulcus and area hMT+. *NeuroImage, 257*: 119336.

Riemer, M., Vieweg, P., van Rijn, H., & Wolbers, T. (2022). Reducing the tendency for chronometric counting in duration discrimination tasks. *Attention, Perception, & Psychophysics, 84*: 2641-2654.

Maaß, S. C., Wolbers, T., van Rijn, H., & **Riemer, M.** (2022). Temporal context effects are associated with cognitive status in advanced age. *Psychological Research*, 86: 512-521.

Riemer, M., Wolbers, T., & van Rijn, H. (2021). Age-related changes in time perception: The impact of naturalistic environments and retrospective judgements on timing performance. *Quarterly Journal of Experimental Psychology*, 74(11): 2002-2012.

Riemer, M., & Wolbers, T. (2020). Negative errors in time reproduction tasks. *Psychological Research*, 84: 168-176.

Stangl, M., Kanitscheider, I., **Riemer, M.**, Fiete, I., & Wolbers, T. (2020). Sources of path integration error in young and aging humans. *Nature Communications*, 11: 2626.

Stahn, A. C., **Riemer, M.**, Wolbers, T., Werner, A., Brauns, K., Besnard, S., Denise, P., Kühn, S., & Gunga, H.-C. (2020). Spatial updating depends on gravity. *Frontiers in Neural Circuits*, 14: 20.

Dordevic, M., Taubert, M., Müller, P., **Riemer, M.**, Kaufmann, J., Hökelmann, A., & Müller, N. G. (2020). Which effects on neuroanatomy and path-integration survive? Results of a randomized controlled study on intensive balance training. *Brain Sciences*, 10: 210.

Riemer, M., Trojan, J., Beauchamp, M., & Fuchs, X. (2019). The rubber hand universe: On the impact of methodological differences in the rubber hand illusion. *Neuroscience and Biobehavioral Reviews*, 104: 268-280.

Riemer, M., Wolbers, T., & Kuehn, E. (2019). Preserved multisensory body representations in advanced age. *Scientific Reports*, 9: 2663.

Bublatzky, F., **Riemer, M.**, & Guerra, P. (2019). Reversing threat to safety: Incongruence of facial emotions and instructed threat modulates conscious perception but not physiological responding. *Frontiers in Psychology*, 10: 2091.

Maaß, S. C., **Riemer, M.**, Wolbers, T., & van Rijn, H. (2019). Timing deficiencies in amnestic mild cognitive impairment: Disentangling clock and memory processes. *Behavioural Brain Research*, 373: 112110.

Riemer, M., Kubik, V., & Wolbers, T. (2019). The effect of feedback on temporal error monitoring and timing behavior. *Behavioural Brain Research*, 369: 111929.

Merhav, M., **Riemer, M.**, & Wolbers, T. (2019). Spatial updating deficits in human aging are associated with traces of former memory representations. *Neurobiology of Aging*, 76: 53-61.

Vieweg, P., **Riemer, M.**, Berron, D., & Wolbers, T. (2019). Memory Image Completion: Establishing a task to behaviorally assess pattern completion in humans. *Hippocampus*, 29: 340-351.

Riemer, M., Shine, J.P., & Wolbers, T. (2018). On the (a)symmetry between the perception of time and space in large-scale environments. *Hippocampus*, 28: 539-548.

Müller, N. G., **Riemer, M.**, Brandt, L., & Wolbers, T. (2018). Repetitive transcranial magnetic stimulation reveals a causal role of the human precuneus in spatial updating. *Scientific Reports*, 8 (1): 10171.

Kuehn, E., Perez-Lopez, M. B., Diersch, N., Döhler, J., Wolbers, T., & **Riemer, M.** (2018). Embodiment in the aging mind. *Neuroscience and Biobehavioral Reviews*, 86: 207-225.

Riemer, M. (2018). Delusions of control in schizophrenia: Resistant to the mind's best trick? *Schizophrenia Research*, 197: 98-103.

Fuchs, X., **Riemer, M.**, Diers, M., Flor, H., & Trojan, J. (2016). Perceptual drifts of real and artificial limbs in the rubber hand illusion. *Scientific Reports*, 6: 24362.

Riemer, M., Diersch, N., Bublatzky, F., & Wolbers, T. (2016). Space, time, and numbers in the right posterior parietal cortex: Differences between response code associations and congruency effects. *NeuroImage*, 129: 72-79.

Riemer, M., Rhodes, D., & Wolbers, T. (2016). Systematic underreproduction of time is independent of judgment certainty. *Neural Plasticity* (Article ID: 6890674): 1-8.

Riemer, M. (2015). Psychophysics and the anisotropy of time. *Consciousness & Cognition*, 38: 191-197.

Riemer, M., Bublatzky, F., Trojan, J., & Alpers, G. W. (2015). Defensive activation during the rubber hand illusion: Ownership versus proprioceptive drift. *Biological Psychology*, 109: 86-92.

Riemer, M., Fuchs, X., Bublatzky, F., Kleinböhl, D., Hölzl, R., & Trojan, J. (2014). The rubber hand illusion depends on a congruent mapping between real and artificial fingers. *Acta Psychologica*, 152: 34-41.

Bublatzky, F., Gerdes, A. B. M., White, A. J., **Riemer, M.**, & Alpers, G. W. (2014). Social and emotional relevance in face processing: Happy faces of future interaction partners enhance the LPP. *Frontiers in Human Neuroscience*, 8: 493.

Riemer, M., Hölzl, R., & Kleinböhl, D. (2014). Interrelations between the perception of time and space in large-scale environments. *Experimental Brain Research*, 232: 1317-1325.

Riemer, M., Kleinböhl, D., Hölzl, R., & Trojan, J. (2013). Action and perception in the rubber hand illusion. *Experimental Brain Research*, 229: 383-393.

Riemer, M., Trojan, J., Kleinböhl, D., & Hölzl, R. (2012). A 'view from nowhen' on time perception experiments. *Journal of Experimental Psychology: Human Perception and Performance*, 38 (5): 1118-1124.

Riemer, M., Trojan, J., Kleinböhl, D., & Hölzl, R. (2010). Body posture affects tactile discrimination and identification of fingers and hands. *Experimental Brain Research*, 206 (1): 47-57.

Peer-reviewed book chapters

Seizova-Cajić, T., Zopf, R., **Riemer, M.**, & Fuchs, X. (2023). Somatosensory illusions. In: Somatosensory Research Methods (Ed. Holmes, N. P.) Springer: New York: 267-285.

Monographs

Riemer, M. (2013). Dynamic representations of the body in space. PhD Thesis, Otto Selz Institute for Applied Psychology, University of Mannheim.

Riemer, M. (2009). Postural influences on tactile discrimination and identification of fingers and hands. Diploma Thesis, Otto Selz Institute for Applied Psychology, University of Mannheim.

Articles for newspapers and magazines (not peer-reviewed)

Riemer, M. (2020). Physical time, perceived time, and their interrelation. *De Physicus*, 31 (3): 5-7.