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Publications

The neural basis of sensorimotor expertise: investigating the role of theta oscillations and the superior parietal lobule using repetitive transcranial magnetic stimulation (rTMS)

Wilken, S., Böttcher, A., Beste, C., Raab, M. & Hoffmann, S., 27.06.2025, In: *Cerebral cortex*. 2025, 35

The acute effects of motor cortex transcranial direct current stimulation on athletic performance in healthy adults: A systematic review and meta-analysis

Winker, M., Hoffmann, S., Laborde, S. & Javelle, F., 09.08.2024, In: *Eur. J. Neurosci.* p. 1-25

Keep the pace: The synchronization of response monitoring and cardiac vagal activity. - Poster

Hoffmann, S., Jendreizik, L., Ettinger, U. & Laborde, S., 2022, *58th Annual Meeting of the Society for Psychophysiological Research, Québec City, Canada.*

Tasting rewards. Effects of orosensory sweet signals on human error processing

Hosang, T., Laborde, S., Sprengel, M., Löw, A., Baum, N., Hoffmann, S. & Jacobsen, T., 2021, In: *Nutritional Neurosciences*.

Keeping the pace: The effect of slow-paced breathing on error monitoring

Hoffmann, S., Jendreizik, L. T., Ettinger, U. & Laborde, S., 01.12.2019, In: *INTERNATIONAL JOURNAL OF PSYCHOPHYSIOLOGY*. 146, p. 217-224 8 p.

Editorial: The Psychophysiology of Action

Hoffmann, S., Beste, C. & Raab, M., 31.05.2019, In: *Frontiers in psychology*. 10, MAY, p. 1266 2 p., 1266.

The relevance of self-induced modulations of resting theta band activity for behavioral adaptation processes

Mückschel, M., Bluschke, A., Pscherer, C., Hoffmann, S. & Beste, C., 2019, *45. Jahrestagung Psychologie und Gehirn : Dresden, 20.-22. Juni 2019; Abstracts*. Deutsche Gesellschaft für Psychophysikologie und ihre Anwendung, p. 151 1 p. 79

The Psychophysiology of Action: A Multidisciplinary Endeavor for Integrating Action and Cognition

Hoffmann, S., Borges, U., Bröker, L., Laborde, S. J. P., Liepelt, R., Lobinger, B. H., Löffler, J., Musculus, L. & Raab, M., 29.09.2018, In: *Frontiers in psychology*. 9, 6 p., 1423.

Abstractband der 50. Jahrestagung der asp

Borges, U. (Publisher), Bröker, L. (Publisher), Hoffmann, S. (Publisher), Hosang, T. (Publisher), Laborde, S. (Publisher), Liepelt, R. (Publisher), Lobinger, B. (Publisher), Löffler, J. (Publisher), Musculus, L. (Publisher) & Raab, M. (Publisher), 2018, *Abstractband der 50. Jahrestagung der asp*.

„Just do it“ Der Einfluss von motorischen Reinvestment auf die Aufschlagleistung im Wettkampf und Training

Grove, P., Musculus, L., Lautenbach, F., Borges, U., Bettag, L., Hoffmann, S., Heinen, T., Laborde, S., Liepelt, R., Lobinger, B., Löffler, J. & Raab, M., 2018, *Abstractband der 50. Jahrestagung der asp: Die Psychophysikologie der Handlung*. p. 23-24 1 p.

KEEP THE PACE: THE SYNCHRONIZATION OF RESPONSE MONITORING AND VAGAL ACTIVITY

Hoffmann, S., Jendreizik, L., Ettinger, U. & Laborde, S. J. P., 2018, In: *Psychophysiology*. 55, Suppl. 1, p. S90 1 p.

Spieltagbezogene Schlafqualität im Fußball

Nüssgens, I., Lobinger, B. H., Hoffmann, S. & Kölling, S., 2018, *50. Jahrestagung der asp "Die Psychophysiologie der Handlung": 10. - 12. Mai 2018 : Abstractband der 50. Jahrestagung der asp*. Borges, U., Bröker, L., Hoffmann, S., Hosang, T., Laborde, S., Liepelt, R., Lobinger, B., Löffler, J., Musculus, L. & Raab, M. (eds.). Bundesinstitut für Sportwissenschaft, p. 84 1 p.

Sweet taste and performance monitoring: a novel approach to performance enhancement?

Hosang, T., Baum, N., Laborde, S. & Hoffmann, S., 2018, *6ème Congrès International de la Société Française de Psychologie du Sport*.

The sweet taste of Dopamine: The effects of sweet taste on human performance monitoring

Hosang, T., Laborde, S. J. P. & Hoffmann, S., 2018, In: *Psychophysiology*. 55, Supplement 1, p. S129 1 p.

The sweet taste of dopamine : Effects of sweet taste on human performance monitoring.

Hosang, T., Laborde, S. & Hoffmann, S., 2018, *58th Annual Meeting of the Society for Psychophysiological Research*.

The sweet taste of dopamine: The effects of carbohydrate mouth rinsing on performance monitoring. - Poster

Hosang, T., Baum, N., Laborde, S. & Hoffmann, S., 2018, *50. Jahrestagung der Arbeitsgemeinschaft für Sportpsychologie*.

Self-control revisited: The case for a motivational neurovisceral perspective on self-control

Laborde, S. J. P., Hoffmann, S., Englert, C. & Raab, M., 01.05.2017, *Gelingende Entwicklung im Lebenslauf. Abstractband der 49. Jahrestagung der Arbeitsgemeinschaft für Sportpsychologie (asp) vom 25. bis 27. Mai 2017 in Bern: Abstractband der 49. Jahrestagung der Arbeitsgemeinschaft für Sportpsychologie (asp) vom 25. bis 27. Mai 2017 in Bern*. Zuber, C., Schmid, J., Wegner, M., Conzelmann, A. & Schmidt, M. (eds.). Universität Bern, Bern Open Publishing, p. 70 1 p.

From Confidence Crises and Action Norms to Self-Reflection and Individual Actions

Raab, M., Hoffmann, S., Laborde, S. & Lobinger, B., 2017, In: *Zeitschrift für Sportpsychologie*.

Self-control revisited: The case for a motivational neurovisceral perspective on self-control.

Laborde, S., Hoffmann, S., Englert, C. & Raab, M., 2017, *14th International Congress of Sport Psychology (ISSP)*.

Von Vertrauenskrisen und Handlungsnormen zu Selbstreflexion und persönlichem Handeln

Raab, M., Hoffmann, S., Laborde, S. J. P. & Lobinger, B. H., 2017, In: *Zeitschrift für Sportpsychologie*. 24, 3, p. 111-119 9 p.

Classifying response correctness across different task sets: a machine learning approach

Plewan, T., Wascher, E., Falkenstein, M. & Hoffmann, S., 31.03.2016, In: *PloS one*. 11, 3, p. e0152864 20 p.

Effects of binge drinking and hangover on response selection sub-processes – a study using EEG and drift diffusion modelling

Stock, A.-K., Hoffmann, S. & Beste, C., 2016, In: *Addiction Biology*.

Gesteigerte kognitive Kontrolle durch verlangsamte Atmung? Eine Analyse des Atemzyklus, der Herzratenvariabilität und der EKP-Komponente N2 - Poster

Jendreizik, L., Laborde, S. & Hoffmann, S., 2016, *48th ASP Congress, Münster*.

Keeping the pace: the effect of slow paced breathing on error monitoring

Hoffmann, S., Jendreizik, L. & Laborde, S. J. P., 2016, *Psychologie und Gehirn 2016: Berlin, 26.-28. Mai 2016 - Abstracts der Beiträge*. Deutsche Gesellschaft für Psychologie, 1 p.

Self-control revisited: The case for a motivational neurovisceral perspective on self-control.

Laborde, S., Hoffmann, S., Englert, C. & Raab, M., 2016, *49. Jahrestagung der Arbeitsgemeinschaft für Sportpsychologie*.

Does response selection contribute to inhibition of return?

Wascher, E., Schneider, D. & Hoffmann, S., 10.03.2015, In: *Psychophysiology*. 52, 7, p. 942-950 9 p.

A perspective on neural and cognitive mechanisms of error commission

Hoffmann, S. & Beste, C., 2015, In: *Frontiers in Behavioral Neuroscience*. 9, 50, 16 p.

Bridging the Gap Between Perception and Cognition: An Overview

Hoffmann, S., 2015, *Performance Psychology*.

Performance and Error Monitoring: Causes and Consequences

Hoffmann, S., 2015, *Performance Psychology*.

Performance Psychology. Perception, Action, Cognition, And Emotion.

Raab, M. (Publisher), Lobinger, B. (Publisher), Hoffmann, S. (Publisher), Pizzera, A. (Publisher) & Laborde, S. (Publisher), 2015, London: Academic press. 366 p.

Crosslinking EEG time-frequency decomposition and fMRI in error monitoring

Hoffmann, S., Labrenz, F., Themann, M., Wascher, E. & Beste, C., 01.03.2014, In: *Brain structure & function*. 219, 2, p. 595-605 11 p.

Frontal theta activity reflects distinct aspects of mental fatigue

Wascher, E., Rasch, B., Sängler, J., Hoffmann, S., Schneider, D., Rinke, G., Heuer, H. & Gutberlet, I., 01.02.2014, In: *Biological psychology*. 96, February, p. 57-65 9 p.

Sustained posterior contralateral activity indicates re-entrant target processing in visual change detection: an EEG study

Schneider, D., Hoffmann, S. & Wascher, E., 01.01.2014, In: *Frontiers in human neuroscience*. 8, May, p. 247 10 p.

Towards the measurement of event-related EEG activity in real-life working environments

Wascher, E., Heppner, H. & Hoffmann, S., 01.01.2014, In: *International journal of psychophysiology : official journal of the International Organization of Psychophysiology*. 91, 1, p. 3-9 7 p.

A new method for relating event-related lateralizations to response times: Vincentizing single-trial EEG data

Hoffmann, S., Schneider, D. & Wascher, E., 2014, *Conference of the European Society for Cognitive and Affective Neuroscience (ESCAN)*.

Brief Report: Some Remarks About the Response Relatedness of the Error Negativity

Hoffmann, S., 2014, In: *Journal of Psychophysiology*. 28, 1, p. 22-31 10 p.

Elektroenzephalografie und Mustererkennung als benutzerunabhängiges Werkzeug für die Marktforschung

Plewan, T., Wascher, E. & Hoffmann, S., 2014, *Gestaltung der Arbeitswelt der Zukunft*. Jäger, M. (ed.). GfA-Press, p. 381-383 3 p.

Is a blink more than an artifact in EEG research?

Wascher, E., Hoffmann, S., Möckel, T. & Heppner, H., 2014, *Conference of the European Society for Cognitive and Affective Neuroscience (ESCAN)*.

On the predictability of errors from EEG signals: A machine learning approach.

Plewan, T., Falkenstein, M. & Hoffmann, S., 2014, *Conference of the European Society for Cognitive and Affective Neuroscience (ESCAN)*.

On the role of visuo-spatial working memory representations for feature change localization: Evidence by the SPCN component

Schneider, D., Hoffmann, S. & Wascher, E., 2014, 40. Tagung "Psychologie und Gehirn" Lübeck, 19. - 21. Juni 2014: Abstracts der Beiträge. p. 121 1 p.

Psychophysiological measure of cognitive load and mental fatigue in working environments

Wascher, E., Heppner, H., Möckel, T. & Hoffmann, S., 2014, 40. Tagung "Psychologie und Gehirn" : Abstracts der Beiträge. Verleger, R. (ed.). 1 p.

Some remarks about the parameterization of the error negativity

Hoffmann, S., 2014, Abstracts of the 56th Conference of Experimental Psychologists . Schütz, A. C. (ed.). p. 109 1 p.

Target localization in visual change detection is based on sustained representations in visual working memory: Evidence by the SPCN component

Schneider, D., Hoffmann, S. & Wascher, E., 2014.

WALNUT- A PYTHON BIOPSYCHOPHYSICS TOOLBOX

Hoffmann, S., Siebelmann, B., Wascher, E. & Rinke, G., 2013, *Imagine the future world: How do we want to work tomorrow?: Abstract proceedings of the 16th EAWOP Congress 2013*. Münstersche Informations- und Archivsystem multimedialer Inhalte (miami), p. 93 1 p.

When compensation fails: attentional deficits in healthy ageing caused by visual distraction

Wascher, E., Schneider, D., Hoffmann, S., Beste, C. & Sänger, J., 01.12.2012, In: *Neuropsychologia*. 50, 14, p. 3185-92 8 p.

Predictive information processing in the brain: errors and response monitoring

Hoffmann, S. & Falkenstein, M., 01.02.2012, In: *International journal of psychophysiology : official journal of the International Organization of Psychophysiology*. 83, 2, p. 208-12 5 p.

Spatial cueing modulates the monitoring of correct responses

Hoffmann, S. & Wascher, E., 11.01.2012, In: *Neuroscience letters*. 506, 2, p. 225-8 4 p.

Personality and error monitoring: an update

Hoffmann, S., Wascher, E. & Falkenstein, M., 01.01.2012, In: *Frontiers in human neuroscience*. 6, p. 171

Aging and error processing: age related increase in the variability of the error-negativity is not accompanied by increase in response variability

Hoffmann, S. & Falkenstein, M., 01.01.2011, In: *PloS one*. 6, 2, p. e17482

Neurophysiologische Aspekte des Zweitspracherwerbs: Der Effekt von korrekтивem Feedback auf die Fehlerverarbeitung und das Lernen

Falkenstein, M., Wild-Wall, N. & Hoffmann, S., 2011, *Lehr-Lernforschung unter neurowissenschaftlicher Perspektive*. Waxmann

The biopsychology-nonlinear analysis toolbox: a free, open-source Matlab-toolbox for the non-linear analysis of time series data

Beste, C., Otto, T. & Hoffmann, S., 01.10.2010, In: *Neuroinformatics*. 8, 3, p. 197-200 4 p.

Independent component analysis of erroneous and correct responses suggests online response control

Hoffmann, S. & Falkenstein, M., 01.09.2010, In: *Human Brain Mapping*. 31, 9, p. 1305-15 11 p.

Ökonomie experimentallpsychologischer Messung im Anwendungskontext

Wascher, E. & Hoffmann, S., 2010, *Neue Arbeits- und Lebenswelten gestalten*. Schütte, M. (ed.). p. 579-582

The Biopsychology – Nonlinear Analysis Toolbox: A free, open-source Matlab-toolbox for the non-linear analysis of time series data

Beste, C., Otto, T. & Hoffmann, S., 2010, <http://biopsynltoolbox.sourceforge.net/>

Visuo-spatial processing and the N1 component of the ERP

Wascher, E., Hoffmann, S., Sanger, J. & Grosjean, M., 01.11.2009, In: Psychophysiology. 46, 6, p. 1270-7 8 p.

AGE-RELATED DECLINE IN THE DIMENSIONALITY OF ERROR-RELATED EEG ACTIVITY: AN INDEPENDENT COMPONENT ANALYSIS

Hoffmann, S. & Falkenstein, M., 2009, In: Psychophysiology. 46, p. S61-S62

EARLY OCCIPITAL ASYMMETRIES AS INDICES FOR SPATIAL ALLOCATION OF ATTENTION

Wascher, E., Hoffmann, S., Sanger, J. & Beste, C., 2009, In: Psychophysiology. 46, p. S19-S20

Event-related Potentials: concept, measurement and analysis

Gajewski, P. D., Wild-Wall, N., Hoffmann, S. & Falkenstein, M., 2009, In: NEUROFORUM. 15, 4, p. 124-129

The correction of eye blink artefacts in the EEG: a comparison of two prominent methods

Hoffmann, S. & Falkenstein, M., 01.01.2008, In: PloS one. 3, 8, p. e3004

Activities

Ad-hoc reviewer Scientific reports

Hoffmann, S. (Reviewer)

2019 → ...

FEPSAC 2019: Introduction to Bayes statistics using GNU R for sport neuroscientists/psychologists

Hoffmann, S. (Session chair)

2019

Gutachten fur das National Science Centre (OPUS Forderung)

Hoffmann, S. (Reviewer)

2019

NeuroImage (Journal)

Hoffmann, S. (Editor)

2019 → ...

NeuroImage (Journal)

Hoffmann, S. (Reviewer)

2019 → ...

Neuroscience letters (Journal)

Hoffmann, S. (Editor)

2019 → ...

50. Jahrestagung der asp

Hoffmann, S. (Organiser)

10.05.2018 → 12.05.2018

Cognitive, Affective, & Behavioral Neuroscience (Journal)

Hoffmann, S. (Reviewer)

2018 → 2019

Frontiers in psychology (Journal)

Hoffmann, S. (Reviewer)

2018 → ...

International journal of psychophysiology : official journal of the International Organization of Psychophysiology (Journal)

Hoffmann, S. (Reviewer)

2018 → ...

European Sport Management Quarterly (Journal)

Hoffmann, S. (Reviewer)

2017 → ...

Frontiers in Behavioral Neuroscience (Journal)

Hoffmann, S. (Reviewer)

2017 → ...

Frontiers in psychology (Journal)

Hoffmann, S. (Reviewer)

2017 → ...

Neuropsychologia (Journal)

Hoffmann, S. (Reviewer)

2017 → ...

Psychophysiology of action (Journal)

Hoffmann, S. (Editor)

2017 → 2018

LRP vincentiles - linking reaction times to response related EEG activity

Hoffmann, S. (Speaker)

15.02.2016

Journal of Experimental Psychology: Human Perception and Performance (Journal)

Hoffmann, S. (Reviewer)

2016 → ...

Neuroscience letters (Journal)

Hoffmann, S. (Reviewer)

2016 → ...

Scientific Reports (Journal)

Hoffmann, S. (Reviewer)

2016 → ...

Gast-Vortrag: Fehler- und Handlungsbezogenes EEG: Methodische Herausforderungen und Ansätze

Hoffmann, S. (Speaker)

2015

Research profile

Neurophysiological correlates of error processing and cognitive control

Differential effects on executive control (e.g. control in older age, personality and cognitive control)

Executive functions

The interaction of response monitoring processes and attention

Psychophysiological methods

Curriculum Vitae

- | | |
|-------------|---|
| since 2014 | Lecturer - German Sport University Cologne - Institute of Psychology - Department of Performance Psychology |
| 2010 - 2014 | Post Doc - Leibniz-Research Centre for Working Environment and Human Factors (IfADo) - Project group "Perceptual cybernetics" |
| 2009 | Dissertation - Ruhr University Bochum - Theme: "Independent Component Analysis of Ocular Artifacts" - Committee: Prof. Dr. M. Falkenstein, Prof. Dr. B. Suchan, Prof. Dr. O. Güntürkün, Prof. Dr. O. Wolf |
| 2008 - 2009 | Researcher/Lecturer - Psychological methods - University of Wuppertal |
| 2007 - 2009 | Doctoral student/Researcher - Leibniz-Research Centre for Working Environment and Human Factors (IfADo) - Project group "Aging and CNS alterations" |
| 2006 - 2007 | Researcher - Leibniz Research Centre for Working Environment and Human Factors - Project group "Modern Human Machine Systems" |

Ad hoc reviewer for (selection)

AGE, Signal Processing, PLoS One, Biological Psychology, Journal of Neurophysiology, Journal of Social Neuroscience, Psychophysiology, Clinical Neurophysiology, Brain Research, Journal of Neuroscience Methods, Cognition, Journal of Individual Differences