

Curriculum Vitae

Sabine Schaefer

Personal Information

Date of Birth: 9th of July 1976

Place of Birth: Gießen

Citizenship: German

Education

2002 - 2004 Fellow, International Max Planck Research School
(IMPRS), „The Life Course: Evolutionary and
Ontogenetic Dynamics (LIFE)“

1996 - 2001 Free University of Berlin, Psychology

Degrees

2005 Dr. phil. (PhD)
Summa cum laude (highest grade)
Free University of Berlin
Members of the dissertation committee: Paul B. Baltes (thesis
advisor), Nina Knoll, Ulman Lindenberger, Herbert
Scheithauer, Peter Walschburger
PhD thesis, „Concurrent cognitive and sensorimotor
performance: a comparison of children and young adults“

2001 Dipl.-Psych. (MA in Psychology)
Final grade 1,0 (highest possible grade)
Free University of Berlin
Diploma thesis, „Age differences in the regulation of action
sequences“ (Advisor: Ulman Lindenberger)

Professional Experience

April 2016 until today	Full Professor (W2) for Human Movement Science (Motor and Cognition), Institute of Sports Sciences, Saarland University
April 2015 until March 2016	Assistant Professor for Exercise Psychology (tenure track), Department of Sports Sciences, Leipzig University
2007-2015	Research scientist and principal investigator, project „Sensorimotor-Cognitive Couplings“, Max Planck Institute for Human Development, Berlin
2005 - 2007	Post-doctoral fellow, project „Sensorimotor-Cognitive Couplings“ (PI: Ulman Lindenberger & Martin Lövdén), Max Planck Institute for Human Development, Berlin
2001 - 2004	Pre-doctoral student, project „Sensorimotor-Cognitive Couplings“ (PI: Paul B. Baltes & Ralf Krampe), Max Planck Institute for Human Development, Berlin
2000 - 2001	Student research assistant, project „The Interplay of Sensorimotor and Cognitive Functioning“ (PI: Paul B. Baltes & Ralf Krampe), Max Planck Institute for Human Development, Berlin
1998 - 2000	Student research assistant, project „Memory and Intelligence in Development“ (MIND) (PI: Ulman Lindenberger), Max Planck Institute for Human Development, Berlin

Publications

Schaefer, S. (2025). Embodied counting: Touching objects reduces errors in counting under cognitive load. *Journal of Cognitive Enhancement*.
<https://doi.org/10.1007/s41465-025-00321-9>

Meha, R., Obertinca, R., aus der Fünten, K., Leisge, K., & Schaefer, S. (2025). A new injury prevention program ‘FUNBALL’ improves cognitive performance of young football (soccer) players: A cluster randomized controlled trial. *Psychology of Sport and Exercise*, 76, 102743.
<https://doi.org/10.1016/j.psychsport.2024.102743>

Leisge, K., Kaczmarek, C., & Schaefer, S. (2024). How often do you cheat? Dispositional influences and intrapersonal stability of dishonest behavior. *Frontiers in Psychology*, 15, 1297058.
<https://doi.org/10.3389/fpsyg.2024.1297058>

Monz, A., Morbe, K., Klein, M., & Schaefer, S. (2023). Mutual interference between memory encoding and motor skills: The influence of motor expertise and age. *Frontiers in Psychology*, 14, 1196978.
<https://doi.org/10.3389/fpsyg.2023.1196978>

Engler, C., Pelzer, F., Kaczmarek, C., & Schaefer, S. (2023). Effects of spectators on the performance of a dance routine. *German Journal of Exercise and Sport Research*. <https://doi.org/10.1007/s12662-023-00929-z>

- Amico, G., Braun, T., & Schaefer, S. (2023). Can acute resistance exercise facilitate episodic memory encoding? *Current Psychology*, 42, 10910–10923. <https://doi.org/10.1007/s12144-021-02352-9>
- Schaefer, S., Riediger, M., Li, C.-S. R., & Lindenberger, U. (2023). Too easy, too hard, or just right: Task-difficulty choices differ by age and gender. *International Journal of Behavioral Development*, 47(3), 253–264. <https://doi.org/10.1177/01650254231160126>
- Vieweg, J., Panzer, S., & Schaefer, S. (2023). Effects of age simulation and age on motor sequence learning: Interaction of age-related cognitive and motor decline. *Human Movement Science*, 87, 103025. <https://doi.org/doi.org/10.1016/j.humov.2022.103025>
- Schaefer, S., Bill, D., Hoor, M., & Vieweg, J. (2023). The influence of age and age simulation on task-difficulty choices in motor tasks. *Aging, Neuropsychology, and Cognition*, 30(3), 429–454. <https://doi.org/10.1080/13825585.2022.2043232>
- Amico, G., & Schaefer, S. (2022). Tennis expertise reduces costs in cognition but not in motor skills in a cognitive-motor dual-task situation. *Acta Psychologica*, 223, 103503. <https://doi.org/10.1016/j.actpsy.2022.103503>
- Schaefer, S., & Amico, G. (2022). Table tennis expertise influences dual-task costs in timed and self-initiated tasks. *Acta Psychologica*, 223, 103501. <https://doi.org/10.1016/j.actpsy.2022.103501>
- Kaczmarek, C., Schmidt, A., Emperle, A.-S., & Schaefer, S. (2022). The influence of social contexts on motor and cognitive performance: Performing alone, in front of others, or co-acting with others. *Journal of Sport and Exercise Psychology*, 44(2), 77–85. <https://doi.org/10.1123/jsep.2021-0101>
- Schaefer, S., Ohlinger, C., & Frisch, N. (2021). Choosing an optimal motor-task difficulty is not trivial: The influence of age and expertise. *Psychology of Sport and Exercise*, 57, 102031. <https://doi.org/10.1016/j.psychsport.2021.102031>
- Amico, G., & Schaefer, S. (2021). Implementing full body movements in a verbal memory task: Searching for benefits but finding mainly costs. *Mind, Brain, and Education*, 15(2), 211–219. <https://doi.org/10.1111/mbe.12284>
- Möhring, W., Klupp, S., Zumbrennen, R., Segerer, R., Schaefer, S., & Grob, A. (2021). Age-related changes in children's cognitive-motor dual-tasking: Evidence from a large, cross-sectional sample. *Journal of Experimental Child Psychology*, 206, 105103. <https://doi.org/10.1016/j.jecp.2021.105103>
- Amico, G., & Schaefer, S. (2021). Negative effects of embodiment in a visual spatial working memory task in children, young adults, and old adults. *Frontiers in Psychology*, 12, 688147. <https://doi.org/10.3389/fpsyg.2021.688147>
- Möhring, W., Klupp, S., Segerer, R., Schaefer, S., & Grob, A. (2020). Effects of various executive functions on adults' and children's walking. *Journal of Experimental Psychology: Human Perception and Performance*, 46, 629–642. <https://doi.org/10.1037/xhp0000736>
- Vieweg, J., & Schaefer, S. (2020). How an age simulation suit affects motor and cognitive performance and self-perception in younger adults. *Experimental Aging Research*, 46, 273–290. <https://doi.org/10.1080/0361073X.2020.1766299>
- Amico, G., & Schaefer, S. (2020). Running during encoding improves word

learning for children. *Frontiers in Psychology*, 11, 684.
<https://doi.org/10.3389/fpsyg.2020.00684>

Amico, G., & Schaefer, S. (2020). No evidence for performance improvements in episodic memory due to fidgeting, doodling or a "neuro-enhancing" drink. *Journal of Cognitive Enhancement*, 4, 2-11. <https://doi.org/10.1007/s41465-019-00124-9>

Schaefer, S., & Scornaienchi, D. (2019). Table tennis experts outperform novices in a demanding cognitive-motor dual-task situation. *Journal of Motor Behavior*, 52, 204-213. <https://doi.org/10.1080/00222895.2019.1602506>

Schaefer, S. (2019). Embodiment helps children solve a spatial working memory task: Interactions with age and gender. *Journal of Cognitive Enhancement*, 3, 233-344. <https://doi.org/10.1007/s41465-018-0081-4>

Schaefer, S. (2019). Werde ich das schaffen? Unter- und Überschätzung der eigenen Fähigkeiten im Alltag. *InMind*, 3.

Schaefer, S. (2018). Why is it difficult to cross the street while talking? *Frontiers for Young Minds*, 6, 30. <https://doi.org/10.3389/frym.2018.00030>

Meeusen, R., Schaefer, S., Tomporowski, P., & Bailey, R. (Eds.). (2018). *Physical activity and educational achievement: Insights from exercise neuroscience*. London: Routledge.

Walter, N. & Schaefer, S. (2018). A review of laboratory studies on the effects of movement and exercise on cognition in children (pp. 187-190). In R. Meeusen, S. Schaefer, P. Tomporowski & R. Bailey (eds.) *Physical activity and educational achievement: Insights from exercise neuroscience*. Taylor & Francis.

Kray, J. & Schaefer, S. (2018). Mittlere und späte Kindheit (6-11 Jahre) (Middle to late childhood). In W. Schneider & U. Lindenberger (Hrsg.), *Entwicklungspsychologie* (8th Edition, pp. 215-238). Weinheim: Beltz.

Bierbauer, W., Inauen, J., Schaefer, S., Kleemeyer, M. M., Lüscher, J., König, C., Tobias, R., Kliegel, M., Zimmerli, L., Holzer, B. M., Battegay, E., Siebenhüner, K., Ihle, A., Schmid, C., Scholz, U. (2017). Health behavior change in older adults: Testing the Health Action Process Approach at the inter- and intraindividual level. *Applied Psychology: Health and Well-Being*, 9, 324-348. <https://doi.org/10.1111/aphw.12094>

Kleemeyer, M. M., Polk, T. A., Schaefer, S., Bodammer, N. C., Brechtel, L., & Lindenberger, U. (2017). Exercise-induced fitness changes correlate with changes in neural specificity in older adults. *Frontiers in Human Neuroscience*, 11, 1-8. <https://doi.org/10.3389/fnhum.2017.00123>

Kleemeyer, M., Kühn, S., Prindle, J., Bodammer, N. C., Brechtel, L., Garthe, A., Kempermann, G., Schaefer, S., & Lindenberger, U. (2016). Changes in fitness are associated with changes in hippocampal microstructure and hippocampal volume among older adults. *NeuroImage*, 131, 155-161. <https://doi.org/10.1016/j.neuroimage.2015.11.026>

Schaefer, S., Kleemeyer, M. & Lindenberger, U. (2015). Kognition und Motorik über die Lebensspanne: Doppelaufgabenstudien und eine Fitnessintervention. *Leipziger Sportwissenschaftliche Beiträge*, 56, 114-125.

- Schaefer, S., Jagenow, D., Verrel, J. & Lindenberger, U. (2015). The influence of cognitive load and walking speed on gait regularity in children and young adults. *Gait and Posture*, 41, 258-262. <https://doi.org/10.3389/fpsyg.2014.01167>
- Schaefer, S., Schellenbach, M., Lindenberger, U., & Woollacott, M. (2015). Walking in high-risk settings: Do older adults still prioritize gait when distracted by a cognitive task? *Experimental Brain Research*, 233, 79-88. <https://doi.org/10.1007/s00221-014-4093-8>
- Schaefer, S. (2014). The ecological approach to dual-task research: Findings on the effects of expertise and age. *Frontiers in Psychology*, 5, 1-9. <https://doi.org/10.3389/fpsyg.2014.01167>
- Wenger, E., Mårtensson, J., Noack, H., Bodammer, N. C., Kühn, S., Schaefer, S., Heinze, H.-J., Düzel, E., Bäckman, L., Lindenberger, U., & Lövdén, M. (2014). Comparing manual and automatic segmentation of hippocampal volumes: Reliability and validity issues in younger and older brains. *Human Brain Mapping*, 35, 4236-4248. <https://doi.org/10.1002/hbm.22473>
- Riediger, M., Voelkle, M., Schaefer, S. & Lindenberger, U. (2014). Charting the life course: Age differences and validity of beliefs about lifespan development. *Psychology and Aging*, 29, 503-520. <https://doi.org/10.1037/a0036228>
- Schaefer, S. & Lindenberger, U. (2013). Thinking while walking: Experienced high-heel walkers flexibly adjust their gait. *Frontiers in Psychology*, 4, 1-7. <https://doi.org/10.3389/fpsyg.2013.00316>
- Kray, J. & Schaefer, S. (2012). Mittlere und späte Kindheit (6-11 Jahre) (Middle to late childhood). In W. Schneider & U. Lindenberger (Eds.), *Entwicklungspsychologie* (7th Edition, pp. 211-234). Weinheim: Beltz.
- Wenger, E., Schaefer, S., Noack, H., Kühn, S., Martensson, J., Heinze, H.-J., Düzel, E., Bäckman, L., Lindenberger, U., & Lövdén, M. (2012). Cortical thickness changes following spatial navigation training in adulthood and aging. *NeuroImage*, 59, 3386-3397. <https://doi.org/10.1016/j.neuroimage.2011.11.015>
- Lövdén, M., Schaefer, S., Noack, H., Bodammer, N. C., Kühn, S., Heinze, H.-J., Düzel, E., Bäckman, L. & Lindenberger, U. (2012). Spatial navigation training protects the hippocampus against age-related changes during early and late adulthood. *Neurobiology of Aging*, 33, 620.e9-620.e22. <https://doi.org/10.1016/j.neurobiolaging.2011.02.013>
- Krampe, R. T., Schaefer, S., Lindenberger, U., & Baltes, P. B. (2011). Lifespan changes in multi-tasking: Concurrent walking and memory search in children, young, and older adults. *Gait and Posture*, 33, 401-405. <https://doi.org/10.1016/j.gaitpost.2010.12.012>
- Schaefer, S. & Schumacher, V. (2011). The interplay of cognitive and motor functioning in healthy older adults: Findings from dual-task studies and suggestions for intervention. *Gerontology*, 57, 239-246. <https://doi.org/10.1159/000322197>
- Lövdén, M., Schaefer, S., Noack, H., Kanowski, M., Kaufmann, J., Tempelmann, C., Bodammer, N. C., Kühn, S., Heinze, H.-J., Lindenberger, U., Düzel, E. & Bäckman, L. (2011). Performance-related increases in hippocampal N-acetylaspartate (NAA) induced by spatial navigation training are restricted to BDNF val homozygotes. *Cerebral Cortex*, 21, 1435-1442. <https://doi.org/10.1093/cercor/bhq230>

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- Schaefer, S., Lövdén, M., Wieckhorst, B., & Lindenberger, U. (2010). Cognitive performance is improved while walking: Differences in cognitive-sensorimotor couplings between children and young adults. *European Journal of Developmental Psychology*, 7, 371-389. <https://doi.org/10.1037/0012-1649.44.3.747>
- Schaefer, S., Krampe, R. Th., & Lindenberger, U. (2009). Gleichzeitig Balancieren und Denkaufgaben bearbeiten: Altersunterschiede zwischen Kindern und jungen Erwachsenen (Balancing while working on cognitive tasks: Age differences between children and young adults). In V. Nagel & V. Lippens (Eds.), *Sportwissenschaft und Sportpraxis: Gleichgewichts-Leistungen im Handlungsbezug. Aktuelle Arbeiten aus der Gleichgewichtsforschung* (pp. 13-24). Hamburg: Czwalina-Verlag.
- Verrel, J., Lövdén, M., Schellenbach, M., Schaefer, S., & Lindenberger, U. (2009). Interacting effects of cognitive load and adult age on the regularity of whole-body motion during treadmill walking. *Psychology and Aging*, 24, 75-81. <https://doi.org/10.1037/a0014272>
- Huxhold, O., Schäfer, S., & Lindenberger, U. (2009). Wechselwirkungen zwischen Sensomotorik und Kognition im Alter: Überblick über ein internationales Forschungsfeld (Interactions of sensory and cognitive functioning in old age: Overview of an international research topic). *Zeitschrift für Gerontologie und Geriatrie*, 42, 93-98. <https://doi.org/10.1007/s00391-008-0566-3>
- Schaefer, S., Krampe, R. Th., Lindenberger, U., & Baltes, P. B. (2008). Age differences between children and young adults in the dynamics of dual-task prioritization: Body (balance) vs. mind (memory). *Developmental Psychology*, 44, 747-757. <https://doi.org/10.1037/0012-1649.44.3.747>
- Lövdén, M., Schaefer, S., Pohlmeier, A., & Lindenberger, U. (2008). Walking variability and working memory load in aging: A dual-process account relating cognitive control to motor control performance. *Journal of Gerontology: Psychological Science*, 63B, P121-P128. <https://doi.org/10.1093/geronb/63.3.P121>
- Lindenberger, U., & Schaefer, S. (2008). Erwachsenenalter und Alter (Middle and old adulthood). In R. Oerter & L. Montada (Eds.), *Entwicklungspsychologie* (6. Auflage, pp. 366-409). Weinheim: Beltz.
- Schaefer, S. & Bäckman, L. (2007). Normales und pathologisches kognitives Altern (Normal and pathological cognitive aging). In J. Brandtstädter & U. Lindenberger (Eds.), *Lehrbuch zur Entwicklungspsychologie der Lebensspanne*. Stuttgart: Kohlhammer.
- Schaefer, S., Huxhold, O., & Lindenberger, U. (2006). Healthy mind in healthy body? A review of sensorimotor-cognitive interdependencies in old age. *European Review of Aging and Physical Activity*, 3, 45-54. <https://doi.org/10.1007/s11556-006-0007-5>

Schaefer, S., & Leisge, K. (submitted). Who misses the target when thinking? Soccer expertise influences shooting-accuracies under cognitive load.

Kaczmarek, C., Pelzer, F., Engler, C., Ziegler, A., Bohnenberger, C., & Schaefer, S. (submitted). Balancing in front of a virtual audience: Social facilitation or visual fixation effects?

Leisge, K., Pitsch, W., & Schaefer, S. (submitted). Spotting the difference from lab to screen: How social distance and anonymity affect dishonesty.

Leisge, K., Heggenberger, A., Kaczmarek, C., Pitsch, W., & Schaefer, S. (in revision). Tracing the lines of deceit. Male cheating behavior increases in online versus face-to-face environments over time.

Heggenberger, A., Vieweg, J., & Schaefer, S. (in revision). Age simulation effects on full-body motor sequence learning.

Pelzer, F., Leisge, K., Kaczmarek, C. & Schaefer, S. (submitted). Spectators lead to overconfidence and risk-taking in males in a motor task.

Wahl, H.-W., Gerstorff, D., Schaefer, S., & Brunner, R. (in preparation). Frühe Risiko- und Schutzfaktoren menschlicher Entwicklung und ihre lebenslangen Auswirkungen (Early protective and early risk factors in human development and their lifelong consequences). Buch in der Reihe "Entwicklungspsychologie über die Lebensspanne". (Book in the series "Lifepan Developmental Psychology")

Member of Editorial Boards

Frontiers in Psychology: Movement Science and Sport Psychology

Ad-hoc Rewiever

Age (Journal for the American Aging association)
Aging, Neuropsychology, and Cognition
Applied Developmental Psychology
Archives of Physical Medicine and Rehabilitation
Behavior and Brain Functions
Brain, Mind, and Education
Developmental Psychology
Disability and Rehabilitation
Ergonomics
European Journal of Applied Physiology
European Journal of Developmental Psychology
European Journal of Sport Sciences
Exercise and Sport Science Reviews
Experimental Brain Research
Experimental Child Psychology
Experimental Gerontology
Frontiers in Human Neuroscience
Frontiers in Neuroscience
Frontiers in Psychology
German Journal of Exercise and Sport Research
Gerontology
GeroPsych: The Journal of Gerontopsychology and Geriatric Psychiatry
Human Brain Mapping

Innovations in Aging
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 Journal of Experimental Child Psychology
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 Journal of Motor Behavior
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 Neuroscience Letters
 Perceptual and Motor Skills
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 Psychology of Sport and Exercise
 Research Quarterly for Exercise and Sport
 Scandinavian Journal of Medicine and Science in Sports
 Sports Biomechanics
 Sports Medicine
 Sportwissenschaft
 Stroke
 Zeitschrift für Sportpsychologie

Reviewer for Grant Proposals

German Research Foundation (DFG)
 Ministry of Science, Technology, and Space, Israel
 Research Grants Council, Hong Kong, China
 Swiss National Science Foundation
 Wellcome Trust

Professional Affiliations

Deutsche Gesellschaft für Psychologie (German Society for Psychology; DGPs)
 Arbeitsgemeinschaft für Sportpsychologie (German Society for Sport Psychology; ASP)

Supervision of Dissertations

Fabian Pelzer (started January 2025, Saarland University)
 Anna Heggenberger (started June 2023, Saarland University)
 Kai Leisge (started April 2022, Saarland University)
 Rina Meha (started summer 2020, external PhD student from Cosovo)
 Janine Vieweg (defense 2022, Saarland University)
 Gianluca Amico (defense 2020, Saarland University)
 Maike Kleemeyer (defense 2017, Humboldt University Berlin, co-supervised by
 Ulman Lindenberger)