

Prof. Dr. Dr. Markus Raab

Geschäftsführer & Leiter der Abt. Leistungspsychologie

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Sprechzeiten: nach Vereinbarung

## **Short Vita**

### **Positions**

Currently head of the Institute of Psychology at the German Sport University, head of the Department Performance Psychology and Professor of Psychology at the London South Bank University, Department of Applied Science.

Prof. Dr. Dr. Markus Raab (geb. 1968):

1996-1998. Wissenschaftlicher Mitarbeiter am ISSW in Heidelberg.

2001. Projektmitarbeiter am Psychologischen Institut (Prof. Ahrens) an der Universität Heidelberg

2001-2003. Post-doc-Stelle am Max-Planck-Institut für Bildungsforschung Berlin, Center for Adaptive Behavior and Cognition

2003-2008. Junior-Professor für Bewegungswissenschaften und Sport am IBUS der Universität Flensburg

### **Doctorate**

- Doctorate 1: 2000 - „SMART: Techniken des Taktiktrainings – Taktiken des Techniktrainings“, Universität Heidelberg
- Doctorate 2: 2004 - „Intervention und Evaluation im Sport“, Humboldt-Universität Berlin
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## **Focus on Research**

The main focus of the research program is on the behavioral level (with some interest in neuropsychological research, see DECIDE and Simulations) and is two-folded:

- First: Motor Learning and Motor Control (including interests in implicit/explicit learning, feedback and instruction, sensorimotor integration in pursuit tracking, catching)
- Second: Judgment and Decision Making in Sports (including dynamic models of Simple heuristics, Decision Field Theory, sampling, predicting sport outcomes, option generation)

## **Focus on Teaching**

- Motorisches Lernen und Motorische Kontrolle
- Kognitionspsychologie
- Sportpsychologie
- Medien-/Kommunikationskompetenz

## **Scientific Awards**

- 1997 Psychologisches Institut, Universität Heidelberg; 1. Preis für das beste Poster: „Denken mit Lust und Laune“ der Experimental-Praktika 1997
- 1997 Springer-Verlag, Heidelberg: 2. Preis für die gelungene didaktische Gestaltung des Posters „Motivationale Implikationen von Stimmungszuständen auf Kognitionen“
- 1999 FEPSAC-Award (for outstanding oral presentation) in Prag 1999
- 1999 ECSS-Young Investigator Award (for outstanding oral presentation) 5. Platz ECSS-Young Investigator Award (for outstanding poster presentation, mit J. Schorer)
- 2001 Karl-Feige Preis der deutschen Sportpsychologen (asp)
- 2012 Best Paper Award der National Communication Association (NCA)

## **National and International Tasks**

- Editor-in-Chief (2009-2012 of the Journal of Sportpsychology; Geschäftsführender Herausgeber der Zeitschrift für Sportpsychologie)
- Associate Editor of Psychology of Sport and Exercise
- Section Editor of the International Journal of Sport and Exercise Psychology (IJSEP, Section: Expertise and Information Processing Issues)
- Member of the Editorial Board of the Journal "Psychology of Sport & Exercise" (PSE)
- Vice president of the Scientific Advisory Board of the German Federal Institute of Sport Sciences (Bundesinstitut für Sportwissenschaft, BISp).
- Member of Scientific Advisory Board (Journal of Sportpsychology, since 2013)

## **Funding**

- International agencies: TransCoop US, PROBRAL Brazilian, Hong Kong Research Council
- National agencies: German Research Foundation, Ministry of the Interior, German Exchange Programs (more than a million Euro total). Research topics focus on embodiment and decision-making in sports, neurophysiological approaches to complex movements as well as interdisciplinary research.

## **Ad-hoc reviewer**

- Adaptive Behavior
- Applied Cognitive Psychology
- Behavioral and Brain Sciences
- Cognitive Processing
- Cognitive Psychology
- Cognitive, Affective & Behavioral Neuroscience

- Consciousness and Cognition
- Dutch Cancer Society
- E-Journal Bewegung und Training
- European Journal of Social Psychology
- European Journal of Sport Science
- Experimental Psychology
- Frontiers in Movement Science and Sport Psychology
- Hormon and Metabolic Research
- Human Movement Science
- International Journal of Sport & Exercise Psychology
- International Journal of Sport Psychology
- International Journal of Sports Science and Coaching
- Journal of Cognitive Psychology
- Journal of Experimental Psychology: Applied
- Journal of Motor Behavior
- Journal of Science and Medicine in Sport
- Journal of Sport & Exercise Psychology
- Journal of Sports Science and Medicine
- Journal of Sports Sciences
- Judgment and Decision Making
- Memory and Cognition
- Neuroscience and Neuroeconomics
- Perceptual and Motor Skills
- Physical Education and Sport Pedagogy
- Psychological Review
- Psychology Sport & Exercise
- Psychonomic Bulletin & Review
- Psychopharmacology
- Quarterly Journal of Experimental Psychology
- Research Quarterly and Exercise Sport
- Scandinavian Journal of Medicine and Science in Sport
- Social Psychology

- Sportwissenschaft
- Talent Development and Excellence
- The Sport Psychologist
- Zeitschrift für Sportpsychologie

## Selected Publications

- **Raab, M.** (2014). A Précis of Simple Heuristics in Sports. In C. Mohiyeddini (Ed.), *Contemporary Topics and Trends in the Psychology of Sports* (pp. 39-52). New York: Nova Publishers.
- Laborde, S., **Raab, M.**, & Dosseville, F. (2013). Emotions and Performance: Valuable insights from the sports domain. In C. Mohiyeddini (Ed.), *Handbook of Psychology of Emotions: Recent Theoretical Perspectives and Novel Empirical Findings* (Vol. 1, pp. 325-358). New York, NY: Nova.
- Laborde, S., & **Raab, M.** (2013). The tale of hearts and reason: the influence of mood on decision making. *Journal of Sport & Exercise Psychology*, 35, 339-357. (IF 2012 = 2.66)
- Klämpfl, M., Lobinger, B. & **Raab, M.** (2013). How to detect the yips of golf. *Human Movement Science*, in press
- **Raab, M.**, de Oliveira, R., Schorer, J. & Hegele, M. (2013). Adaptation of motor control strategies to environmental cues in a pursuit-tracking task. *Experimental Brain Research*, 228, 155-160.
- Werner, K. & **Raab, M.** (2013). Moving to solution. Effects of Movement Priming on Problem Solving. *Experimental Psychology* (e-online first).
- Murgia, M., Hohmann, T., Galmonte, A., **Raab, M.**, Agostini, T. (2012). Recognising one's own motor actions through sound: The role of temporal factors. *Perception*, 41, 976-987
- Avugos, S., Köppen, J., Czienkowski, U., **Raab, M.** & Bar-Eli, M. (2012). The "hot hand" reconsidered: A meta-analytic approach. *Psychology of Sport and Exercise*. 14, 21-27.
- Glöckner, A., Heinen, T., Johnson, J. & **Raab, M.** (2012). Network approaches for Expert-Decision in Sports. *Human Movement Science*, 31, 318-333.
- Ofoghi, B., Zeleznikow, J., MacMahon, C. & **Raab, M.** (accepted). Data Analysis and Mining Demands in Elite Sports. *Measurement in Physical Education and Exercise Science*.

- Pizerra, A. & **Raab, M.** (2012). Does Motor or Visual Experience Enhance the Detection of Deceptive Movements in Football? *International Journal of Sports Science & Coaching*, 7(2), 269-283.
- Pizerra, A. & **Raab, M.** (2012). Perceptual judgments of sports officials are influenced by their motor and visual experience. *Journal of Applied Sport Psychology*, 24, 59-72.
- **Raab, M.** (2012). Perspektiven einer perspektivistischen Zusammenarbeit in der Sportwissenschaft: Von Erkenntnisstruktur zu Erkenntnishandeln. *Spectrum der Sportwissenschaft*, 24, Heft 1, 68-71.
- **Raab, M.** (2012). Simple heuristics in sports. *International Review of Sport and Exercise Psychology*, 2012, 1-17. DOI:10.1080/1750984X.2012.654810
- **Raab, M.**, Gula, B. & Gigerenzer, G. (2012). The hot hand exists in Volleyball and is used for allocation decisions. *Journal of Experimental Psychology: Applied*, 18, 81-94
- Dosseville, F., Laborde, S. & **Raab, M.** (2011). Contextual and personal motor experience. Effects in judo referees' decisions. *The Sport Psychologist*, 25, 67-81.
- **Raab, M.** & Laborde, S. (2011). When to blink and when to think: preference for intuitive decisions results in faster and better tactical choices. *Research Quarterly for Exercise and Sport*, 82(1), 89-98.
- Volz, K., Schooler, L., Schubotz, R., **Raab, M.**, Gigerenzer, G. & von Cramon, Y. (2011). Why you think Milan is larger than Modena: Neural Correlates of the Recognition Heuristic. In Gigerenzer, Hertwig & Pachur, *Heuristics: the foundation of adaptive behavior*. Oxford: University Press
- Hohmann, T., Heinen, T. & **Raab, M.** (2010). Editorial Embodiment. *Zeitschrift für Sportpsychologie*, 17(4), 105-108.
- Schlapkohl, N., Hohmann, T., Arnold A., Philippen P & **Raab, M.** (2010). Der Einfluss von aufmerksamkeitslenkenden Instruktionen auf das Erlernen einer Schlagbewegung im Golf. *Sportwissenschaft* 40 (2), S. 103-109.
- Schlapkohl, N., Hohmann, T. & **Raab, M.** (2010). Instruktionen im Leistungssport. *Leistungssport*, 40(1), 31-34.
- Zastrow, H., Schlapkohl, N. & **Raab, M.** (2010). Effektivitätsprüfung eines Messplatztrainings, *Leistungssport*, 40(5), 50-54.

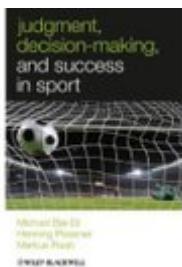
- Conzelmann, A. & **Raab, M.** (2009). Datenanalyse: Das Null-Ritual und der Umgang mit Effekten in der Zeitschrift für Sportpsychologie. *Zeitschrift für Sportpsychologie*, 16 (2), 43-54.
- **Raab, M.**, Masters, Rich, S. W., Maxwell, J., Arnold, A., Schlapkohl, N. & Poolton, J. (2009). Discovery Learning in Sports: Implicit or Explicit Processes? *International Journal of Sport*, 7, (4), 413-430.
- Zastrow, H. & **Raab, M.** (2009). Blickbewegungsstrategien im Handball-Leistungsnachwuchsbereich. *Leistungssport* 3, 37-41.
- Masters, R. S. W., Poolton, J. M., Maxwell, J. P. & **Raab, M.** Implicit motor learning and complex decision making in time constrained environments (2008). *Journal of Motor Behavior*, 40, 71-79.
- **Raab, M.** & Philippen, P. (2008). Auf der Suche nach der Einfachheit in Vorhersagemodellen im Sport. *Sportwissenschaft* 38 (4), S. 464-471.
- Tielemann, N., **Raab, M.** & Arnold, A. (2008). Effekte von Instruktionen auf motorische Lernprozesse. Lernen durch Analogien oder Bewegungsregeln? *Zeitschrift für Sportpsychologie* 15 (4), 118-128.
- **Raab, M.** (2007). On the value of the attentional focus concept: Elaborate and specify! *E-Journal Bewegung und Training*.
- **Raab, M.** (2007). Think SMART, not hard – Teaching decision making in sports from an adaptive cognition perspective. *Physical Education and Sport Pedagogy*, 12, 1-18.
- **Raab, M.**, Gärtner, K. & Kapaun M. (2007). Ein Messplatz für Sportspielentscheidungen. *Leipziger Sportwissenschaftliche Beiträge*, 48 (2), 156-157.
- **Raab, M.** & Johnson, J. (2007). Expertise-Based Differences in Search and Option-Generation Strategies. *Journal of Experimental Psychology: Applied*, 13, 158-170.
- **Raab, M.** & Johnson, J. Option-generation and resulting choices (2007). *Journal of Experimental Psychology: Applied*, 13, 158-170.
- Bar-Eli, M., & **Raab, M.** (2006). Judgment and Decision Making in Sport and Exercise: Rediscovery and New Visions. Editorial. *Psychology of Sport & Exercise*, 7, 519-524.
- Bar-Eli, M., Avugos, S. & **Raab, M.** (2006). Twenty years of “Hot Hand” research: Review and Critique. *Psychology of Sport & Exercise*, 7, 525-553.

- Poolton, J. M., Maxwell J. P., Masters R. S. W. & **Raab M.** (2006). Benefits of an external focus of attention: Common coding or conscious processing. *Journal of Sports Sciences*, 24, 89-99.
- Volz, K. G., Schooler, L. J., Schubotz, R. I., **Raab, M.**, Gigerenzer. G. & v. Cramon, D. Y. (2006). Why you think Milan is larger than Modena: Neural correlates of the recognition heuristic. *Journal of Cognitive Neuroscience*, 18 (11), 1924-1936.
- **Raab, M.** & Green, N. (2005). Motion as input: A functional explanation of movement effects on cognitive processes. *Perceptual & Motor Skills*, 100, 333-348.
- Hill, H. & **Raab, M.** (2005). Analyzing a complex visuomotor tracking task with brain-electrical event related potentialals. *Human Movement Science*, 24, 1-30.
- **Raab, M.** (2005). An explicit investigation on implicit decision making processes. A reply to Poplu et al. 2004. *International Journal of Sport and Exercise Psychology*, 1, 7-25.
- **Raab, M.**, Masters, R. S. W., Maywell J. P. (2005). Improving the how what decisions of elite table tennis players. *Human Movement Science*, 24, 326-344.
- Gula, B. & **Raab, M.** (2004). Hot Hand Belief and Hot Hand Behavior: A Comment on Koehler and Conley. *Journal of Sport & Exercise Psychology*, 26, 167-170.
- **Raab, M.** & Johnson J. G. (2004). Individual differences of action orientation for risk-taking in sports. *Research Quarterly for Exercise and Sport*, 75 (3), 326-336.
- Johnson, J. & **Raab, M.** (2003). Take the first: Option-generation and resulting choices. *Organizational Behavior and Human Decision Processes*, 91, 215-229.
- **Raab, M.** (2003). Decision making in sports: Influence of complexity on implicit and explicit learning. *International Journal of Sport an Exercice Psychology*, 1, 310-337.
- **Raab, M.**, Perl, J. & Zechnall, D. (2003). The Mapping of Intrinsic and Extrinsic Information in Continuous Visuo-Motor Control. *E-Journal Bewegung und Training*.
- **Raab, M.** (2002). T-Echo: Model of decision making to explain behaviour in experiments and simulations under time pressure. *Psychology of Sport & Exercise*, 3 (2), 151-171.

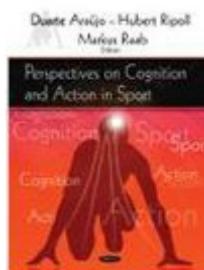
## Books and Chapters



Schlapkohl, N., Gärtner, K., **Raab, M.** & Häger, J. (2012). MotionLab for talents. *Schriftenreihe Human Performance and Sport*, Band 4. Flensburg: Flensburg University Press.



Bar-Eli, Plessner & **Raab** (2011). Judgement and Decision-Making and Success in Sport. Wiley Press



Araujo, D., Ripoll, H. & **Raab, M.** (Eds.) (2009). Perspectives on Cognition and Action in Sport. New York: Nova Science Publishers, Inc.



**Raab, M.**, Johnson, J. & Heekeren, H. (Eds.). (2009). *Progress in Brain Research: Mind and Motion: The Bidirectional Link between Thought and Action*. Amsterdam: Elsevier Press.

- Köppen, J. & **Raab, M.** (in press). Das Hot-Hand-Phänomen im Volleyball. *DVV-Beitrag*.
- Daamen, M. & **Raab, M.** (2012). Psychological Assessments in Physical Exercise. Boecker, H. et al. (eds.), *Functional Neuroimaging in Exercise and Sport Sciences*. New York: Springer Science+Business Media  
DOI 10.1007/978-1-4614-3293-7
- Lobinger, B., Kass, P., **Raab, M.** & Mickler, W. (2012). Das Anforderungsprofil von Trainern im Profifußball. In Jansen, C. et al. (Eds.), *Trainingswissenschaftliche, geschlechtsspezifische und medizinische Aspekte des Hochleistungsfußballs*. Hamburg: Czwalina.
- Plessner, H. & **Raab, M.** (2012). Kognitionen von Sportzuschauern - Urteile, Ursachenzuschreibungen, Vorhersagen und Wetten. In B. Strauß (Hrsg.), Sportzuschauer. Reihe *Sportpsychologie*, Band 7. S. 140-161. Hogrefe: Göttingen
- Heinen, T. & **Raab, M.** (2010). Sensomotorische Kontrolle trifft Sportinformatik: Ein Erfahrungsbericht. In J. Wiemeyer, A. Baca & M. Lames (Hrsg.), *Sportinformatik gestern, heute und morgen: Festschrift zu Ehren von Prof. Dr. Jürgen Perl*, S. 133-142. Hamburg: Czwalina.
- **Raab, M.**, Zastrow, H., & Häger, J. (2010). Entwicklung eines Messplatztrainings für taktische Kompetenzen im Handball. *BISp-Jahrbuch* (pp. 201-204). Bonn: Hausdruckerei des Statistischen Bundesamtes.
- Gärtner, K., **Raab, M.**, Lobinger, B. & Zastrow, H. (2009). Entwicklung eines diagnostischen Verfahrens zur Analyse und Bewertung taktischer Kompetenzen im Handball. In G. Neumann (Red.), *Talentdiagnose und Talentprognose im Nachwuchsleistungssport* (2. BISp-Symposium: Theorie trifft Praxis), S. 117-119. Bonn: Sportverlag Strauß.

- Heinen, T., **Raab, M.**, & Lobinger, B. (2009). Sportspielforschung - Was war, ist und sein könnte. In H.-F. Voigt & G. Jendrusch (Hrsg.), *Sportspielforschung und -ausbildung in Bochum - Was war, was ist und was sein könnte*, S. 17-29. Hamburg: Czwalina.
- Holzweg, M., Schlapkohl, N. & **Raab, M.** (2009). Perspektiven für Mädchenfußball im Schulsport. In U. Frick (Hrsg.), *Fußball in Schule und Verein - Eine Herausforderung für Forschung und Lehre* (S.115-120). Hamburg: Czwalina.
- Johnson, G.J., **Raab, M.** & Heekeren, H.R. (2009). Mind and Motion: Surveying successes and stumbles in lookin ahead. In M. Raab, J. G. Johnson, & H. R. Heekeren (eds.), *Mind and Motion: The Bidirectional Link between Thought and Action: Vol. 174* (pp. 319-328). *Progress in Brain Research*. Amsterdam: Elsevier.
- Köppen, J. & **Raab, M.** (2009). Knowledge of athletes as cues for simple choices. In D. Araujo, H. Ripoll, & M. Raab, (eds.).*Perspectives on Congition and Action in Sport* (pp. -). New York: Nova Science Publishers, Inc.
- Lobinger, B., **Raab, M.**, Gärtner, K. & Zastrow, H. (2009). Konzepte langfristiger Talentdiagnostik und -förderung in Handball und Fußball. In G. Neumann (Red.), *Talentdiagnose und Talentprognose im Nachwuchsleistungssport* (2. BISp-Symposium: Theorie trifft Praxis), S. 114-116. Bonn: Sportverlag.
- Munzert, J. & **Raab, M.** (2009). Informationsverarbeitung. Beitrag für W. Schlicht & B. Strauß (Hrsg.). *Enzyklopädie der Psychologie. Sportpsychologie. Band 1. Grundlagen der Sportpsychologie* (S. 105-157). Göttingen: Hogrefe.
- de Oliveira, R., Damisch, L., Hossner, E.-J., Oudejans, R.R.D., **Raab, M.**, Volz, K., Williams, A.M. (2009). The bidirectional links between decision making, perception, and action. In M. Raab, J. G. Johnson, & H. R. Heekeren (eds.), *Mind and Motion: The Bidirectional Link between Thought and Action: Vol. 174* (pp. 85-93). *Progress in Brain Research*. Amsterdam: Elsevier.
- **Raab, M.**, Lobinger, B., Gärtner, K. & Zastrow, H. (2009). Sportpsychologische Talentdiagnostik: Ein sportartspezifischer und kognitionspsychologischer Ansatz. In G. Neumann (Red.), *Talentdiagnose und Talentprognose im Nachwuchsleistungssport* (2. BISp-Symposium: Theorie trifft Praxis), S. 111-113. Bonn: Sportverlag Strauß.
- **Raab, M.**, de Oliveira, R. & Heinen, T. (2009). How do people perceive and generate options? In M. Raab, J. G. Johnson, & H. R. Heekeren (eds.), *Mind and Motion: The*

Bidirectional Link between Thought and Action: Vol. 174 (pp. 49-59). *Progress in Brain Research*. Amsterdam: Elsevier.

- Tielemann, N. & **Raab, M.** (2009). Instruktionen im Spitzensport: Leistungsverbesserung durch Analogien. *BISp-Jahrbuch* (pp. 117-120). Bonn: Bonndruck GmbH.
- Zastrow, H., **Raab, M.**, Lobinger, B. & Gärtner, K. (2009). Entwicklung eines Messplatztrainings für taktische Kompetenzen im Handball. In G. Neumann (Red.), *Talentdiagnose und Talentprognose im Nachwuchsleistungssport* (2. BISp-Symposium: Theorie trifft Praxis), S. 120-122. Bonn: Sportverlag Strauß.
- Farrow, D. & **Raab, M.** (2008). A recipe for expert decision making. In D. Farrow, J. Baker & C. MacMahon (Eds.), *Developing Sport Expertise: Researchers and coaches put theory into practice* (pp. 137-154). London and New York: Routledge.
- **Raab, M.** (2008). Sportspielforschung zwischen Praxis und Internationalität. In : A. Woll, W. Klöckner, M. Reichmann & M. Schlag (Hrsg.), *Sportspielkulturen erfolgreich gestalten - Von der Trainerbank bis in die Schulkasse* (S. 65-74). Hamburg: Czwalina.
- **Raab, M.** & Johnson, J. (2008). Implicit Learning as a Means to Intuitive Decision Making in Sports. In H. Plessner, C. Betsch & T. Betsch. *Intuition in Judgement and Decision making*. New York, London: Taylor and Francis Group.
- **Raab, M.**, & Gigerenzer, G. (2005). Intelligence as smart heuristics. In R. J. Sternberg & J. E. Pretz (Eds.), *Cognition and intelligence: Identifying the mechanisms of the mind* (pp. 188-207). Cambridge: Cambridge University Press.
- **Raab, M.** & Magill, R.A. (2003). Gedächtnis, Behalten und Vergessen. In: H. Mechling & J. Munzert (Hrsg.), *Handbuch Bewegungslehre-Bewegungswissenschaft* (S. 231-241). Schorndorf: Hofmann Verlag.