

# Gidon Frischkorn, PhD



## Research interests

Computational Modelling, Psychometrics, Cognitive Psychology, Individual Differences.

## General

Date of Birth 5 December 1990  
Nationality German  
Work Address University of Zurich, Institute of Psychology, Cognitive Psychology Unit  
Binzmuehlestrasse 14/22, CH-8050 Zurich, Switzerland  
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## Metrics

Publications 21 (peer-reviewed only)  
Funding CHF 976,510 (third-party only)  
Citations 649 (source: GoogleScholar)  
h-index 14 (source: GoogleScholar)

## Languages

Spoken German (native), English (fluent), French (basic)  
Programming R (advanced), Matlab (basic), JavaScript/TypeScript (basic), HTML/CSS (basic)

## Work Experience

since 2023 **SNF Ambizione Fellow**, University of Zurich, Switzerland  
Independent Junior Research Group Leader of an *SNF Ambizione Project Group* working on the SNF Ambizione Project “*The Binding Hypothesis - A unified account of cognitive individual differences?*”

2019 – 2022 **Postdoctoral Researcher**, University of Zurich, Switzerland  
Post-Doc at the Cognitive Psychology Lab (Prof. Klaus Oberauer) conducting independent research and teaching seminars and lectures in the Bachelor and Master Psychology program of the Institute of Psychology at UZH.

2015 – 2018 **Ph.D. Student**, Heidelberg University, Germany  
Research associate and Ph.D. student at the Chair of Personality Psychology and Psychometrics (Prof. Dirk Hagemann); Ph.D project *Basic cognitive processes of intelligence*.

2010 – 2015 **Research Assistant**, Heidelberg University, Germany  
Various Research Assistant positions at the chairs of General and Theoretical Psychology (Prof. Joachim Funke) and Personality Psychology and Psychometrics (Prof. Dirk Hagemann).

## Higher Education

2015 – 2019 **Ph.D.**, Heidelberg University, Germany.  
*Basic cognitive processes of intelligence* (Supervisor: Prof. Dirk Hagemann)

2013 – 2015 **M.Sc., Psychology**, Heidelberg University, Germany.

2009 – 2012 **B.Sc., Psychology**, Heidelberg University, Germany.

## Research Funding

SNF **Ambizione Grant** (01/2023 - 12/2026), *The binding hypothesis - A unified account of cognitive individual differences?* **CHF 916,510**

	SNF	<b>Flexibility Grant</b> (01/2023 - 12/2024), Support grant to balance family and research. <b>CHF 60,000</b>
collaborator	DFG	<b>Scientific Network</b> (2021 - 2024) <i>Neurocognitive Psychometrics</i> , awarded to Prof. Anna-Lena Schubert. Co-Coordination of the network and contribution towards the idea and preparation of the project proposal.
	DFG	<b>Project Grant</b> (2018 - 2021) <i>Neurocognitive Psychometrics of cognitive abilities</i> , awarded to Prof. Anna-Lena Schubert. Contribution towards the conceptualization of the project proposal and listed as a collaborator in the project.
Travel Funding	SAGW	<b>Travel Award</b> (November 2019), for participating and presenting at the 60th Annual Meeting of the Psychonomic Society in Montreal, Canada. <b>CHF 1000</b>
	ISIR	<b>Student Travel Award</b> (July 2018), for participating and presenting at the Annual Meeting of the International Society for Intelligence Research (ISIR) in Edinburgh, Scotland. <b>€ 1000</b>
	DAAD	<b>Travel Award</b> (November 2017), for participating and presenting at the 58th Annual Meeting of the Psychonomic Society (2017) in Vancouver, Canada. <b>€ 1000</b>
Awards	2020	<b>Teacher of the Hour</b> , University of Zurich. Award for special accomplishments of faculty during the Corona outbreak
	2019	<b>Best Paper Award</b> , Journal of Intelligence. For the article <i>Cognitive Models in Intelligence Research: Advantages and Recommendations for Their Application</i> . <b>CHF 1000</b>
	2015	<b>Franz Emanuel Weinert Award</b> , Institute of Psychology, Heidelberg University. M.Sc. thesis award
Scientific Roles		
Editorial	Recommender	PCI: Registered Reports
Reviewer	Funding Ag. Journals	Swiss National Science Foundation, National Science Center Poland Current Directions in Psychological Science, Psychological Review, Journal of Experimental Psychology: General, PLOS:One, Memory & Cognition, Behavior Research Methods, Attention, Perception, & Psychophysics, Intelligence, Experimental Psychology, Quarterly Journal of Experimental Psychology, Journal of Cognition, npj Science of Learning, BMC Psychology, Journal of Intelligence, Brain Sciences, Sustainability
Member	since 2017	Society for the Improvement of Psychological Science
	since 2017	European Society of Cognitive Psychology (ESCoP)
	since 2017	Psychonomic Society
	since 2015	Deutsche Gesellschaft der Psychologie (DGPs)
Admin roles	since 2019	<b>Departmental Assembly of the Department of Psychology</b> , University of Zurich. <i>Substitute of the junior faculty representatives</i>
	since 2019	<b>Strategy Committee at the Department of Psychology</b> , University of Zurich. <i>Representative of junior faculty scientists</i>

## Teaching

Workshops	09/2023	<i>Improving Inference About Cognitive Processes Using Mixture Models</i> Workshop at the 23rd Conference of the European Society of Cognitive Psychology, Porto, Portugal.
	10/2022	<i>Structural equation modeling in R &amp; lavaan.</i> Workshop for PhD & MSc students, University of Porto.
	04/2018	<i>Applied diffusion model analyses: Introduction to fast-dm.</i> Workshop at the Leibniz Research Centre for Working Environment & Human Factors.
Lectures	Spring 2021	<i>Cognitive Psychology I</i> (B.Sc. Psychology), University of Zurich.
	Fall 2019	<i>Cognitive Psychology II</i> (B.Sc. Psychology), University of Zurich.
	Spring 2017	<i>Advanced Psychometrics</i> (M.Sc. Psychology), Heidelberg University.
Seminars	Spring 2023	<i>Using simulations to challenge your intuitions about cognitive theories</i> (M.Sc. Psychology), University of Zurich.
	Spring 2022	<i>Using simulations to challenge your intuitions about statistics and cognitive theories</i> (M.Sc. Psychology), University of Zurich.
	Fall 2021	<i>Cutting Edge Research in Human Cognition</i> (M.Sc. Psychology), University of Zurich.
	Fall 2020	<i>Investigating and measuring working memory processes</i> (M.Sc. Psychology), University of Zurich.
	Spring 2020	<i>Cutting Edge Research in Human Cognition</i> (M.Sc. Psychology), University of Zurich.
	Fall 2018	<i>Planning &amp; Programming Experiments in MATLAB &amp; Psychtoolbox 3</i> (B.Sc. Psychology), Heidelberg University.
	Spring 2018	<i>Planning &amp; Programming Experiments in MATLAB &amp; Psychtoolbox 3</i> , (B.Sc. Psychology), Heidelberg University.
	Fall 2017	<i>Personality Traits: The theoretical development of the trait concept</i> (M.Sc. Psychology), Heidelberg University.
	Spring 2017	<i>Empirical Projectseminar II</i> (B.Sc. Psychology), Heidelberg University.
	Fall 2016	<i>Empirical Projectseminar I</i> (B.Sc. Psychology), Heidelberg University.
	Spring 2016	<i>Attention, Processing Speed &amp; Working Memory Capacity</i> (M.Sc. psychology), Heidelberg University.
	Fall 2015	<i>Personality Traits: The theoretical development of the trait concept</i> (M.Sc. Psychology), Heidelberg University

## Supervision

PhD	ongoing	<i>Isabel Courage</i> , Ph.D. student: SNF Ambizione Project Group. Topic: <i>Similarities and Differences of Declarative and Procedural Working Memory.</i> <i>Chenyu Li</i> , Visiting Ph.D. student at the Cognition Lab at UZH. Topic: <i>Measuring the Removal of Information from Working Memory.</i>
MSc		Supervision & Co-Supervision of 2 M.Sc. Theses at Heidelberg University & University of Zurich List of M.Sc. Students: Felix Wirth, Jan Göttmann.
BSc		Supervision of 9 B.Sc. Thesis at Heidelberg University & University of Zurich

## Research Output

### Journal Articles

- Post PhD [21] **Frischkorn, G. T.** (accepted). Responsible Research Assessment requires structural more than procedural reforms. *Meta-Psychology*. Preprint available at: <https://psyarxiv.com/a4ky6/>
- [20] accepted Dames, H., Musfeld, P., Popov, V., Oberauer, K., & **Frischkorn, G. T.** (accepted). Responsible Research Assessment Should Prioritize Theory Development and Testing Over Ticking Open Science Boxes. *Meta-Psychology*. Preprint available at: <https://psyarxiv.com/ad74m/>
- [19] 2023 Souza, A. S., & **Frischkorn, G. T.** (2023). A diffusion model analysis of age and individual differences in the retro-cue benefit. *Scientific Reports*, 13(1), Article 1. <https://doi.org/10.1038/s41598-023-44080-z>
- [18] **Frischkorn, G. T.**, Wilhelm, O., & Oberauer, K. (2022). Process-oriented intelligence research: A review from the cognitive perspective. *Intelligence*, 94, 101–681. <https://doi.org/10.1016/j.intell.2022.101681>
- [17] **Frischkorn, G. T.**, Hilger, K., Kretzschmar, A., & Schubert, A.-L. (2022). Intelligenzdiagnostik der Zukunft. [The future of intelligence assessment] *Psychologische Rundschau*, 73(3), 173–189. <https://doi.org/10.1026/0033-3042/a000598>
- [16] **Frischkorn, G. T.**, von Bastian, C. C., Souza, A. S., & Oberauer, K. (2022). Individual differences in updating are not related to reasoning ability and working memory capacity. *Journal of Experimental Psychology: General*. <https://doi.org/10.1037/xge0001141>
- [15] 2022 Löffler, C., **Frischkorn, G. T.**, Rummel, J., Hagemann, D., & Schubert, A.-L. (2022). Do Attentional Lapses Account for the Worst Performance Rule? *Journal of Intelligence*, 10(1), 2. <https://doi.org/10.3390/jintelligence10010002>
- [14] **Frischkorn, G. T.**, & Oberauer, K. (2021). Intelligence test items varying in capacity demands cannot be used to test the causality of working memory capacity for fluid intelligence. *Psychonomic Bulletin & Review*. <https://doi.org/10/gjp3br>
- [13] 2021 **Frischkorn, G. T.**, & von Bastian, C. C. (2021). In Search of the Executive Cognitive Processes Proposed by Process-Overlap Theory. *Journal of Intelligence*, 9(3), 43. <https://doi.org/10/gmm7dz>
- [12] Lerche, V., von Krause, M., Voss, A., **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2020). Diffusion modeling and intelligence: Drift rates show both domain-general and domain-specific relations with intelligence. *Journal of Experimental Psychology: General*, 149, 2207–2249. <https://doi.org/10/ggt8r7>
- [11] Schubert, A.-L., & **Frischkorn, G. T.** (2020). Neurocognitive Psychometrics of Intelligence: How Measurement Advancements Unveiled the Role of Mental Speed in Intelligence Differences. *Current Directions in Psychological Science*. <https://doi.org/10/ggkz9b>

- [10] 2020 Schubert, A.-L., Hagemann, D., Löffler, C., & **Frischkorn, G. T.** (2020). Disentangling the Effects of Processing Speed on the Association between Age Differences and Fluid Intelligence. *Journal of Intelligence*, 8(1), 1. <https://doi.org/10/ggj5hm>
- [9] Schubert, A.-L., **Frischkorn, G. T.**, & Rummel, J. (2019). The validity of the online thought-probing procedure of mind wandering is not threatened by variations of probe rate and probe framing. *Psychological Research*. <https://doi.org/10/gfz6s4>
- PhD [8] 2019 **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2019). Processing speed, working memory, and executive functions: Independent or inter-related predictors of general intelligence. *Intelligence*, 75, 95–110. <https://doi.org/10/gf3sxs>
- [7] Schubert, A.-L., Hagemann, D., **Frischkorn, G. T.**, & Herpertz, S. C. (2018). Faster, but not smarter: An experimental analysis of the relationship between mental speed and mental abilities. *Intelligence*, 71, 66–75. <https://doi.org/10/gffjb9>
- [6] 2018 **Frischkorn, G. T.**, & Schubert, A.-L. (2018). Cognitive Models in Intelligence Research: Advantages and Recommendations for Their Application. *Journal of Intelligence*, 6(3), 34. <https://doi.org/10/gd3vqn>
- [5] 2017 Schubert, A.-L., Hagemann, D., & **Frischkorn, G. T.** (2017). Is general intelligence little more than the speed of higher-order processing? *Journal of Experimental Psychology: General*, 146(10), 1498–1512. <https://doi.org/10/gch83n>
- [4] **Frischkorn, G. T.**, Schubert, A.-L., Neubauer, A., & Hagemann, D. (2016). The Worst Performance Rule as Moderation: New Methods for Worst Performance Analysis. *Journal of Intelligence*, 4(3), 9. <https://doi.org/10/gd3vsz>
- [3] Schubert, A.-L., **Frischkorn, G. T.**, Hagemann, D., & Voss, A. (2016). Trait Characteristics of Diffusion Model Parameters. *Journal of Intelligence*, 4(3), 7. <https://doi.org/10/gd3vs3>
- [2] 2016 Meißner, A., Greiff, S., **Frischkorn, G. T.**, & Steinmayr, R. (2016). Predicting Complex Problem Solving and school grades with working memory and ability self-concept. *Learning and Individual Differences*, 49, 323–331. <https://doi.org/10/f82798>
- [1] 2014 **Frischkorn, G. T.**, Greiff, S., & Wüstenberg, S. (2014). The development of complex problem solving in adolescence: A latent growth curve analysis. *Journal of Educational Psychology*, 106(4), 1007–1020. <https://doi.org/10/gd3vsg>
- Preprints [6] Bartsch, L. M., **Frischkorn, G. T.**, & Shepherdson, P. (2023). When Load is Low, Working Memory is Shielded from Long-Term Memory's Influence (SSRN Scholarly Paper 4600918). <https://doi.org/10.2139/ssrn.4600918>
- [5] Schubert, A.-L., **Frischkorn, G. T.**, Sadus, K., Welhaf, M., Kane, M. J., & Rummel, J. (2023). The brief mind wandering three-factor scale (BMW-3). *PsyArXiv*. <https://doi.org/10.31234/osf.io/cy9rx>
- [4] **Frischkorn, G. T.**, & Popov, V. (2023). A tutorial for estimating mixture models for visual working memory tasks in brms: Introducing the Bayesian Measurement Modeling (bmm) package for R. *PsyArXiv*. <https://doi.org/10.31234/osf.io/umt57>
- [3] Souza, A. S., **Frischkorn, G. T.**, & Oberauer, K. (2023). Older yet Sharp: No General Age-Related Decline in Focusing Attention. *PsyArXiv*.

- [2] Löffler, C., **Frischkorn, G. T.**, Hagemann, D., Sadus, K., & Schubert, A.-L. (2022). The common factor of executive functions measures nothing but speed of information uptake. *PsyArXiv*. <https://doi.org/10.31234/osf.io/xvdyz>
- [1] Von Bastian, C. C., Blais, C., Brewer, G., Gyurkovics, M., Hedge, C., Kałamała, P., Meier, M., Oberauer, K., Rey-Mermet, A., Rouder, J. N., Souza, A. S., Bartsch, L. M., Conway, A. R. A., Draheim, C., Engle, R. W., Friedman, N. P., **Frischkorn, G. T.**, Gustavson, D. E., Koch, I., ... Wiemers, E. (2020). Advancing the understanding of individual differences in attentional control: Theoretical, methodological, and analytical considerations. *PsyArXiv*. <https://doi.org/10.31234/osf.io/x3b9k>

## Invited Talks

- [2] **Frischkorn, G. T.** (2022, May). *Measuring & dissociating cognitive processes: Problems and pitfalls exemplified with the Anti-Saccade Task*. Working Memory, Cognition, and Development Laboratory, University of Geneva.
- [1] **Frischkorn, G. T.** (2021, May). *Implications from cognitive psychology for measuring cognitive processes: The example of the anti-saccade task*. Lehrstuhl für Allgemeine Psychologie: Cognition, Action, and Sustainability. Universität Freiburg

## Conferences

### Post PhD

- [29] **Frischkorn, G.T.**, Oberauer, K., & Souza, A.S. (2023, November). Do Perceptual Abilities fully account for the Relationship of Working Memory Capacity and Reasoning Ability? [Talk] *Symposium for Individual Differences in Cognition*, San Francisco, USA.
- [28] **Frischkorn, G.T.**, Popov, V. (2023, November). Easy and accessible implementations of cognitive measurement models: Introducing the Bayesian Measurement Model (bmm) R package. [Talk] *64th Annual Meeting of the Psychonomic Society*, San Francisco, USA.
- [27] **Frischkorn, G.T.**, Oberauer, K., & Souza, A.S. (2023, September). Do Perceptual Abilities fully account for the Relationship of Working Memory Capacity and Reasoning Ability? [Talk] *23rd Conference of the European Society of Cognitive Psychology*, Porto, Portugal.
- [26] 2023 **Frischkorn, G.T.**, Popov, V. (2023, June). Towards Easy and Accessible Cognitive Measurement Models: Introducing the Bayesian Measurement Model (bmm) R Package. [Talk] *International Workshop on Psychometric Computing*, Zurich, Switzerland.
- [25] **Frischkorn, G.T.**, Rebmann, R. & Oberauer, K. (2022, November). Measuring executive functions: Difference score do the best job after all. [Poster] *63rd Annual Meeting of the Psychonomic Society*, Boston, USA.
- [24] Schubert, A.-L. & **Frischkorn, G. T.** (2022, September). Measuring Cognitive Control: Challenges and Pitfalls [Symposium & Discussant] *52nd Congress of the German Psychological Association*, Hildesheim, Germany.
- [23] 2022 **Frischkorn, G.T.** & Oberauer, K. (2022, September). The manual anti-saccade task is not a pure measure of inhibition. [Poster] *22nd Meeting of the European Society of Cognitive Psychology*, Lille, France.

- [22] 2021 **Frischkorn, G. T.** & Oberauer, K. (2021, November) Inhibition, Binding, or Sensory Discrimination: What does the behavioral anti-saccade task measure? [Poster] *62nd Annual Meeting of the Psychonomic Society*, Virtual.
- [21] **Frischkorn, G. T.** & von Bastian, C. C. (2020, November). In search of the executive and content-specific cognitive processes propagated by Process-Overlap Theory [Poster] *61st Annual Meeting of the Psychonomic Society*, Virtual.
- [20] **Frischkorn, G. T.** & von Bastian, C. C. (2020, September). The efficiency of removal is independent from the accuracy of substitution in working memory updating [Talk]. *10th European Working Memory Symposium*, Virtual.
- [19] 2020 **Frischkorn, G. T.** (2020, February). Same, same, but different? Continuous activation vs. Discrete state models of simple span tasks [Talk]. *Swiss Working Memory Meeting*, Fribourg, Switzerland.
- [18] **Frischkorn, G. T.**, & Gebhardt, I. (2019, March). Exogeneous vs. Endogenous attention during retrieval from working memory [Talk]. *Swiss Working Memory Meeting*, Fribourg, Switzerland.
- [17] **Frischkorn, G. T.**, & Oberauer, K. (2019a, July). Using the Memory Measurement Model in WM tasks with visual material and n-AFC recognition retrievals [Talk]. *21st Meeting of the European Society of Cognitive Psychology*, Tenerife, Spain.
- [16] **Frischkorn, G. T.**, & Oberauer, K. (2019b, August). Generalizing the Memory Measurement Model to n-AFC recognition retrievals [Talk]. *50th Meeting of the European Mathematical Psychology Group*, Heidelberg, Germany.
- [15] **Frischkorn, G. T.**, von Bastian, C. C., Souza, A. S., & Oberauer, K. (2019, November). Individual differences in updating are not related to reasoning ability [Talk]. *60th Annual Meeting of the Psychonomic Society*, Montreal, Canada.
- PhD [14] 2019 **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2019, June). The relation of executive functions to intelligence on a behavioral and neural level [Talk]. *45. Jahrestagung Psychologie & Gehirn*, Dresden, Germany.
- [13] **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2018d, November). Basic Cognitive Processes of Intelligence: Bridging the Gap Between Working Memory, Executive Functions, and Processing Speed. [Poster]. *59th Annual Meeting of the Psychonomic Society*, New Orleans, USA.
- [12] **Frischkorn, G. T.**, & Schubert, A.-L. (2018, September). Cognitive models as measurement tools: The appropriate representation of a person's cognitive processes [Talk]. *14th biannual conference of the German Society for Cognitive Science*, Darmstadt, Germany.
- [11] **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2018c, September). Basic cognitive processes of intelligence: Bridging the gap between working memory, executive functions and processing speed [Talk]. *51. Kongress der Deutschen Gesellschaft für Psychologie*, Frankfurt (a.M.), Germany.
- [10] **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2018b, July). Basic cognitive processes of intelligence: Bridging the gap between working memory, executive functions and processing speed [Talk]. *19th Annual Meeting of the International Society for Intelligence Research*, Edinburgh, Scotland.
- [9] 2018 **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2018a, May). Too Much on My Mind—Inhibiting irrelevant information impairs reasoning ability [Poster].

- [8] **Frischkorn, G. T.**, Schubert, A.-L., Rummel, J., & Hagemann, D. (2017, November). Memory Span and Updating in Working Memory – independent or inter-related processes? [Poster]. *58th Annual Meeting of the Psychonomic Society*, Vancouver, Canada.
- [7] **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2017c, September). Examining the Role of Working Memory Capacity and Age in Task Shifting [Talk]. *20th Conference of the European Society of Cognitive Psychology*, Potsdam, Germany.
- [6] **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2017b, June). Do Shifting and Inhibition rely on the same or different neural processes? An EEG-study of a Shifting task with flanker stimuli [Poster]. *43. Tagung Psychologie & Gehirn*, Trier, Germany.
- [5] 2017 **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2017a, March). Examining interactions between inhibition and task shifting: Results from a Switching task with flanker stimuli [Talk]. *59. Tagung experimentell arbeitender Psychologen (TeaP)*, Dresden, Germany.
- [4] **Frischkorn, G. T.**, Schubert, A.-L., & Hagemann, D. (2016, May). Convergent and discriminant validity of ERP latencies and parameters of the diffusion model [Poster]. *42. Tagung Psychologie und Gehirn*, Berlin, Germany.
- [3] 2016 **Frischkorn, G. T.**, Schubert, A.-L., Hagemann, D., & Voss, A. (2016, March). The latent state-trait structure of diffusion model parameters [Talk]. *58. Tagung experimentell arbeitender Psychologen (TeaP)*, Heidelberg, Germany.
- [2] 2015 **Frischkorn, G. T.**, Schubert, A.-L., Neubauer, A. B., & Hagemann, D. (2015, September). Anwendung von Multi-Level Moderation in Worst Performance Analysen [Talk]. *12. Tagung der Fachgruppe Methoden & Evaluation der DGPs*, Jena, Germany.
- [1] 2013 **Frischkorn, G. T.**, Greiff, S., & Wüstenberg, S. (2013, April). The Development of Complex Problem Solving and its Relation to Reasoning, Age and Gender [Talk]. *5th Szeged Workshop on Educational Evaluation*, Szeged, Hungary.