

# Martin Hecht

*Publikationsverzeichnis (Stand: 12.02.2021)*

## Publikationen (in peer-reviewed Journals)

- accepted** Weirich, S., **Hecht, M. (shared first authorship)**, Becker, B., & Zitzmann, S. (accepted). Comparing group means with the total mean in random samples, surveys, and large-scale assessments: A tutorial and software illustration. *Behavior Research Methods*.
- Crewther, B. T., **Hecht, M.**, & Cook, C. J. (accepted). Diurnal within-person coupling between testosterone and cortisol in healthy men: evidence of positive and bidirectional time-lagged associations using a continuous-time model. *Adaptive Human Behavior and Physiology*.
- 2021** Zitzmann, S., Helm, C., & **Hecht, M.** (2021). Prior specification for more stable Bayesian estimation of multilevel latent variable models in small samples: A comparative investigation of two different approaches. *Frontiers in Psychology*, *11*, 1–11. doi:10.3389/fpsyg.2020.611267
- Hecht, M.**, Voelke, M. C. (2021). Continuous-time modeling in prevention research: An illustration. *International Journal of Behavioral Development*, *45*. 19–27. doi:10.1177/0165025419885026
- 2020** Crewther, B. T., **Hecht, M.**, Potts, N., Kilduff, L. P., Drawer, S., Marshall, E., & Cook, C. J. (2020). A longitudinal investigation of bidirectional and time-dependent interrelationships between testosterone and training motivation in an elite rugby environment. *Hormones and Behavior*, *126*, 1–8. doi:10.1016/j.yhbeh.2020.104866
- Schauber, S. K., & **Hecht, M.** (2020). How sure can we be that a student really failed? On the measurement precision of individual pass-fail decisions from the perspective of Item Response Theory. *Medical Teacher*, *42*, 1374–1384. doi:10.1080/0142159X.2020.1811844
- Hecht, M.**, & Zitzmann, S. (2020). Sample size recommendations for continuous-time models: Compensating shorter time-series with higher numbers of persons and vice versa. *Structural Equation Modeling: A Multidisciplinary Journal*. Advance online publication. doi:10.1080/10705511.2020.1779069
- Zitzmann, S., Lüdtke, O., Robitzsch, A., & **Hecht, M.** (2020). On the performance of Bayesian approaches in small samples: A Comment on Smid, McNeish, Miocevic, and van de Schoot (2020). *Structural Equation Modeling: A Multidisciplinary Journal*. Advance online publication. doi:10.1080/10705511.2020.1752216
- Hecht, M.**, & Zitzmann, S. (2020). A computationally more efficient Bayesian approach for estimating continuous-time models. *Structural Equation Modeling: A Multidisciplinary Journal*, *27*, 829–840. doi:10.1080/10705511.2020.1719107

- Hecht**, M., Gische, C., Vogel, D., & Zitzmann, S. (2020). Integrating out nuisance parameters for computationally more efficient Bayesian estimation – An illustration and tutorial. *Structural Equation Modeling: A Multidisciplinary Journal*, *27*, 483–493. doi:10.1080/10705511.2019.1647432
- Hardt, K., **Hecht**, M., & Voelke, M. C. (2020). Robustness of individual score methods against model misspecification in autoregressive panel models. *Structural Equation Modeling: A Multidisciplinary Journal*, *27*, 240–254. doi:10.1080/10705511.2019.1642755
- Schüttpelz-Braun, K., **Hecht**, M., Hardt, K., Karay, Y., Zupanic, M., & Kämmer, J. (2020). Institutional strategies related to test-taking behavior in low stakes assessment. *Advances in Health Sciences Education*, *25*, 321–335. doi:10.1007/s10459-019-09928-y
- 2019** **Hecht**, M., Hardt, K., Driver, C. C., & Voelke, M. C. (2019). Bayesian continuous-time Rasch models. *Psychological Methods*, *24*, 516–537. doi:10.1037/met0000205
- Zitzmann, S., & **Hecht**, M. (2019). Going beyond convergence in Bayesian estimation: Why precision matters too and how to assess it. *Structural Equation Modeling: A Multidisciplinary Journal*, *26*, 646–661. doi:10.1080/10705511.2018.1545232
- Hardt, K., **Hecht**, M., Oud, J. H. L., & Voelke, M. C. (2019). Where have the persons gone? – An illustration of individual score methods in autoregressive panel models. *Structural Equation Modeling: A Multidisciplinary Journal*, *26*, 310–323. doi:10.1080/10705511.2018.1517355
- 2018** Schauber, S. K., & **Hecht**, M., & Nouns, Z. M. (2018). Why assessment in medical education needs a solid foundation in modern test theory. *Advances in Health Sciences Education*, *23*, 217–232. doi:10.1007/s10459-017-9771-4
- 2017** **Hecht**, M., Siegle, T., & Weirich, S. (2017). A model for the estimation of testlet response time to optimize test assembly in paper-and-pencil large-scale assessments. *Journal for Educational Research Online*, *9*, 32–51.
- Heitmann, P., **Hecht**, M., Scherer, R., & Schwanewedel, J. (2017). “Learning science is about facts and language learning is about being discursive”: An empirical investigation of students’ disciplinary beliefs in the context of argumentation. *Frontiers in Psychology*, *8*, 1–16. doi:10.3389/fpsyg.2017.00946
- Wellnitz, N., **Hecht**, M., Heitmann, P., Kauertz, A., Mayer, J., Sumfleth, E., & Walpuski, M. (2017). Modellierung des Kompetenzteilbereichs naturwissenschaftliche Untersuchungen. *Zeitschrift für Erziehungswissenschaft*, 556–584. doi:10.1007/s11618-016-0721-3
- 2016** Weirich, S., **Hecht**, M., Penk, C., Roppelt, A., & Böhme, K. (2017). Item position effects are moderated by changes in test-taking effort. *Applied Psychological Measurement*, 115–129. doi:10.1177/0146621616676791
- Gittel, B., Deutschländer, R., & **Hecht**, M. (2016). Conveying moods and knowledge-what-it-is-like through lyric poetry: An empirical study of authors’ intentions and readers’ responses. *Scientific Study of Literature*, *6*, 131–163. doi:10.1075/ssol.6.1.07git
- 2015** **Hecht**, M., Weirich, S., Siegle, T., & Frey, A. (2015). Effects of design properties on parameter estimation in large-scale assessments. *Educational and Psychological Measurement*, *75*, 1021–1044. doi:10.1177/0013164415573311

- Hecht**, M., Weirich, S., Siegle, T., & Frey, A. (2015). Modeling booklet effects for nonequivalent group designs in large-scale assessment. *Educational and Psychological Measurement*, *75*, 568-584. doi:10.1177/0013164414554219
- Schauber, S. K., **Hecht**, M., Nouns, Z. M., Kuhlmeier, A., & Dettmer, S. (2015). The role of environmental and individual characteristics in the development of student achievement: A comparison between a traditional and a problem-based-learning curriculum. *Advances in Health Sciences Education*, *20*, 1033-1052. doi:10.1007/s10459-015-9584-2
- 2014** Weirich, S., **Hecht**, M., & Böhme, K. (2014). Modeling item position effects using generalized linear mixed models. *Applied Psychological Measurement*, *38*, 535-548. doi:10.1177/0146621614534955
- Weirich, S., Haag, N., **Hecht**, M., Böhme, K., Siegle, T., & Lüdtke, O. (2014). Nested multiple imputation in large-scale assessments. *Large-scale Assessments in Education*, *2*, 1-18. doi:10.1186/s40536-014-0009-0
- Heitmann, P., **Hecht**, M., Schwanewedel, J., & Schipolowski, S. (2014). Students' argumentative writing skills in science and first-language education: Commonalities and differences. *International Journal of Science Education*, *36*, 3148-3170. doi:10.1080/09500693.2014.962644
- 2013** Schauber, S. K., **Hecht**, M., Nouns, Z. M., & Dettmer, S. (2013). On the role of biomedical knowledge in the acquisition of clinical knowledge. *Medical Education*, *47*, 1223-1235. doi:10.1111/medu.12229

---

## Publikationen (in anderen Medien)

- 2017** Voelkle, M. C., & **Hecht**, M. (2017). Longitudinal research designs. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1-6). doi:10.1007/978-3-319-28099-8\_1323-1
- Voelkle, M. C., & **Hecht**, M. (2017). Cross-sectional research designs. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1-4). doi:10.1007/978-3-319-28099-8\_1295-1
- 2016** Lenski, A. E., **Hecht**, M., Penk, C., Milles, F., Mezger, M., Heitmann, P., Stanat, P., & Pant, H. A. (2016). *IQB-Ländervergleich 2012. Skalenhandbuch zur Dokumentation der Erhebungsinstrumente*. Berlin: Humboldt-Universität zu Berlin, Institut zur Qualitätsentwicklung im Bildungswesen. doi:10.20386/HUB-42547
- 2015** **Hecht**, M. (2015). *Optimierung von Messinstrumenten im Large-scale Assessment* (Doctoral Dissertation). Humboldt-Universität zu Berlin. doi:10.18452/17270
- 2013** **Hecht**, M., Roppelt, A. & Siegle, T. (2013). Testdesign und Auswertung des Ländervergleichs. In H. A. Pant, P. Stanat, U. Schroeders, A. Roppelt, T. Siegle, & C. Pöhlmann (Hrsg.), *IQB-Ländervergleich 2012. Mathematische und naturwissenschaftliche Kompetenzen am Ende der Sekundarstufe I* (S. 391-402). Münster: Waxmann.

- Schroeders, U., **Hecht**, M., Heitmann, P., Jansen, M., Kampa, N., Klebba, N., Lenski, A. E., & Siegle, T. (2013). Der Ländervergleich in den naturwissenschaftlichen Fächern. In H. A. Pant, P. Stanat, U. Schroeders, A. Roppelt, T. Siegle, & C. Pöhlmann (Hrsg.), *IQB-Ländervergleich 2012. Mathematische und naturwissenschaftliche Kompetenzen am Ende der Sekundarstufe I* (S. 141-158). Münster: Waxmann.
- 2012** Edele, A., Schotte, K., **Hecht**, M., & Stanat, P. (2012). *Listening comprehension tests of immigrant students' first languages (L1) Russian and Turkish in grade 9: Scaling procedure and results* (NEPS Working Paper No. 13). Bamberg: Otto-Friedrich-Universität, Nationales Bildungspanel.
- 2009** Pohlmeier, A. E., **Hecht**, M., & Blessing, L. (2009). User Experience Lifecycle Model ContinUE [Continuous User Experience]. In A. Lichtenstein, C. Stöbel & C. Clemens (Hrsg.), *Der Mensch im Mittelpunkt technischer Systeme. Fortschritt-Berichte VDI Reihe 22 Nr. 29* (pp. 314-317). Düsseldorf, Germany: VDI-Verlag

## Comments/Datensätze/Software

- 2021** Weirich, S., **Hecht**, M., & Becker, B. (2021). eatRep: Educational assessment tools for replication methods (Version 0.13.3) [Computer software]. <https://github.com/weirichs/eatRep>
- 2020** Schaubert, S. K., & **Hecht**, M. (2020). Reply to Jiang et al. *Medical Teacher*. Advance online publication. doi:10.1080/0142159X.2020.1834932
- Weirich, S., **Hecht**, M., Sachse, K., Becker, B., & Mahler, N. (2021). eatTools: Miscellaneous Functions for the Analysis of Educational Assessments (Version 0.5.0) [Computer software]. <https://cran.r-project.org/package=eatTools>
- Weirich, S., **Hecht**, M., Becker, B. (2021). eatRep: Educational assessment tools for replication methods (Version 0.13.4) [Computer software]. <https://cran.r-project.org/package=eatRep>
- 2017** Pant, H. A., Stanat, P., **Hecht**, M., Heitmann, P., Jansen, M., Lenski, A. E., Penk, C., Pöhlmann, C., Roppelt, A., Schroeders, U., & Siegle, T. (2017). *IQB-Ländervergleich Mathematik und Naturwissenschaften 2012 (IQB-LV 2012)* (Version 4) [Datensatz]. Berlin: IQB – Institut zur Qualitätsentwicklung im Bildungswesen. doi:10.5159/IQB\_LV\_2012\_v4

## Publikationsstatistiken

Google **Zitationen: 403**  
 Scholar **h-index: 12**  
 (12.02.2021) **i10-index: 15**  
**Cumulative Impact Factor: 65.896**  
**Personal Impact Factor: 12.379**