

# CV Guido Biele

Norwegian Institute of Public Health  
Department of Child Health  
Marcus Thranes gate 6, Oslo  
0473 Oslo

Phone: (+47) 2107-8350  
Email: guido.biele@fhi.no  
Google Scholar: <https://tinyurl.com/gubipubs>

## Education

2003-2006 **Ph.D.**, Exp. Psychology Max Planck Institute for Human Development  
& Freie Universität Berlin  
1993-1999 **Diploma**, Psychology Freie Universität Berlin

## Academic Positions

2018- **Research professor** Norwegian Institute of Public Health  
2019- **Professor (20%)** University of Oslo, Department of Psychology  
2014-2017 **Senior Researcher** Norwegian Institute of Public Health  
ADHD  
Statistical modeling  
08/2017- **Researcher** Oslo University Hospital  
ADHD  
Statistical modeling  
2010-2013 **Post doc** University of Oslo, Department of Psychology  
ADHD  
Cognitive Neuroscience  
2007-2010 **Post doc** Max Planck Institute for Human Development  
Cognitive Neuroscience Freie Universität Berlin

## Selected grants

2020	<b>PI</b>	Effect of medication and special education on school performance of children with ADHD	12 000k NOK
2018	<b>PI</b>	A register study of regional variations and parental effects on diagnosis and pharmacological treatment of ADHD	300k NOK
2016	<b>Researcher</b>	<b>NFR:</b> Prenatal exposure to toxicants & childhood neurodevelopmental disorders & cognitive functions	10 000k NOK
2015	<b>co-PI</b>	<b>NFR:</b> The effect of prenatal nutrition on ADHD	8 400k NOK
2011	<b>PI</b>	<b>NFR:</b> Effect of Methylphenidate on Decision Making in ADHD	6 000k NOK
	<b>PI</b>	<b>HSØ:</b> Influence of stimulant medication on brain processes for decision making in ADHD	2 250k NOK
	<b>PI</b>	<b>NK AD/HD, Tourettes Syndrom og Narkolepsi:</b> Decision making and learning in ADHD	250k NOK
2007	<b>PI</b>	<b>BMBF:</b> "Reward- and monitoring-based decision making in the healthy brain: behavior, genes, and neural correlates	1 200k NOK

## Supervision

**Ph.D., main supervisor:** Lund-Pedersen (2017), Mowinckel (2016)  
**Ph.D., co supervisor:** Krugel (2010), Mohr (2011), Green (2013)  
**Master students:** Blank (2009), Graef (2007), Kazzer (2010), Vavatzanidis (2010), Lund-Pedersen (2011), Eilertsen (2012), Haahjem Eftedal (2012)

## Awards

Best poster award, 6th International Congress for ADHD, 2013, Milano.  
 Best poster award, 3rd International Eunethydis Conference, 2014, Istanbul

## List of Publications

30 publications. Top publications: PNAS (3x), PLoS Biology, European Journal of Epidemiology, American Journal of Epidemiology, Neuroscience and Biobehavioral Reviews. Journal of Neuroscience. h-index: 20.

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| 2019 | <p>Biele, G., Gustavson, K., Czajkowski, N. O., Nilsen, R. M., Reichborn-Kjennerud, T., Magnus, P. M., Stoltenberg, C., and Aase, H. (2019). Bias from self selection and loss to follow-up in prospective cohort studies. <i>European journal of epidemiology</i>, 34(10):927–938</p> <p>Borge, T. C., Bransæter, A. L., Caspersen, I. H., Meltzer, H. M., Eek Brandlistuen, E. R., Aase, H., and Biele, G. (2019). Estimating Strength of Associations Between Prenatal Diet Quality and Child Developmental Outcomes – Results From a Large Prospective Pregnancy Cohort. <i>American journal of epidemiology</i>, page to appear</p> <p>Overgaard, K. R., Oerbeck, B., Friis, S., Biele, G., Pripp, A. H., Aase, H., and Zeiner, P. (2019). Screening with an ADHD-specific rating scale in preschoolers: A cross-cultural comparison of the Early Childhood Inventory-4. <i>Psychological assessment</i></p>   |
| 2018 | <p>Øvergaard, K. R., Oerbeck, B., Friis, S., Pripp, A. H., Biele, G., Aase, H., and Zeiner, P. (2018). Attention-Deficit/Hyperactivity Disorder in Preschoolers: The Accuracy of a Short Screener. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i>, 57(6):428–435</p> <p>Surén, P., Thorstensen, A. G., Tørstad, M., Emhjellen, P. E., Furu, K., Biele, G., Aase, H., Stoltenberg, C., Zeiner, P., Bakken, I. J., and Reichborn-Kjennerud, T. (2018). Diagnosis of hyperkinetic disorder among children in Norway. <i>Tidsskrift for den Norske lægeforening: tidsskrift for praktisk medicin, ny række</i>, 138(20)</p> <p>Skåtun, K. C., Kaufmann, T., Brandt, C. L., Doan, N. T., Alnæs, D., Tønnesen, S., Biele, G., Vaskinn, A., Melle, I., Agartz, I., Andreassen, O. A., and Westlye, L. T. (2018). Thalamo-cortical functional connectivity in schizophrenia and bipolar disorder. <i>Brain imaging and behavior</i>, 12(3):640–652</p> |
| 2017 | <p>Borge, T. C., Aase, H., Brantsæter, A. L., and Biele, G. (2017). The importance of maternal diet quality during pregnancy on cognitive and behavioural outcomes in children: a systematic review and meta-analysis. <i>BMJ open</i>, 7(9):e016777</p> <p>Mowinckel, A. M., Lund Pedersen, M., Ziegler, S., Fredriksen, M., Kaufmann, T., Sonuga-Barke, E. J. S., Endestad, T., Westlye, L. T., and Biele, G. (2017). Increased default-mode variability is related to reduced task-performance and is evident in adults with ADHD. <i>NeuroImage: Clinical</i></p> <p>Eikemo, M., Biele, G., Willoch, F., Thomsen, L., and Leknes, S. (2017). Opioid Modulation of Value-Based Decision-Making in Healthy Humans. <i>Neuropsychopharmacology: official publication of the American College of Neuropsychopharmacology</i></p>  |

- Lund Pedersen, M., Frank, M. J., and Biele, G. (2017). The drift diffusion model as the choice rule in reinforcement learning. *Psychonomic bulletin & review*, 24(4):1234–1251
- 2016 Ziegler, S., Lund Pedersen, M., Mowinckel, A. M., and Biele, G. (2016). Modelling ADHD: a review of ADHD theories through their predictions for computational models of decision-making and reinforcement learning. *Neuroscience and biobehavioral reviews*, 71:633–656
- Ørstavik, R., Gustavson, K., Rohrer-Baumgartner, N., Biele, G., Furu, K., Karlstad, Ø., Reichborn-Kjennerud, T., Borge, T., and Aase, H. (2016). ADHD i Norge. En statusrapport. Technical report, Norwegian Institute of Public Health
- Caspersen, I. H., Aase, H., Biele, G., Brantsæter, A. L., Haugen, M., Kvalem, H. E., Skogan, A. H., Zeiner, P., Alexander, J., Meltzer, H. M., and Knutsen, H. K. (2016). The influence of maternal dietary exposure to dioxins and PCBs during pregnancy on ADHD symptoms and cognitive functions in Norwegian preschool children. *Environment international*, 94:649–660
- Berg, N., Biele, G., and Gigerenzer, G. (2016). Consistent Bayesians Are No More Accurate Than Non-Bayesians: Economists Surveyed About PSA. *Review of Behavioral Economics*, 3(2):189–219
- Skåtun, K. C., Kaufmann, T., Tønnesen, S., Biele, G., Melle, I., Agartz, I., Alnæs, D., Andreassen, O. A., and Westlye, L. T. (2016). Global brain connectivity alterations in patients with schizophrenia and bipolar spectrum disorders. *Journal of psychiatry & neuroscience: JPN*, 41(3):150159
- 2015 Lund Pedersen, M., Endestad, T., and Biele, G. (2015). Evidence Accumulation and Choice Maintenance Are Dissociated in Human Perceptual Decision Making. *PloS one*, 10(10):e0140361
- Mowinckel, A. M., Lund Pedersen, M., Eilertsen, E., and Biele, G. (2015). A meta-analysis of decision-making and attention in adults with ADHD. *Journal of attention disorders*, 19(5):355–367
- Suter, R. S., Pachur, T., Hertwig, R., Endestad, T., and Biele, G. (2015). The neural basis of risky choice with affective outcomes. *PloS one*, 10(4):e0122475
- 2014 Biele, G., Zeiner, P., and Aase, H. (2014). Convergent and discriminant validity of psychiatric symptoms reported in The Norwegian Mother and Child Cohort Study at age 3 years with independent clinical assessment in the Longitudinal ADHD Cohort Study. *Norsk epidemiologi = Norwegian journal of epidemiology*, 24(1-2)
- 2013 Blank, H., Biele, G., Heekeren, H. R., and Philiastides, M. G. (2013). Temporal characteristics of the influence of punishment on perceptual decision making in the human brain. *The Journal of neuroscience: the official journal of the Society for Neuroscience*, 33(9):3939–3952
- Hämmerer, D., Biele, G., Müller, V., Thiele, H., Nürnberg, P., Heekeren, H. R., and Li, S.-C. (2013). Effects of PPP1R1B (DARPP-32) Polymorphism on Feedback-Related Brain Potentials Across the Life Span. *Frontiers in psychology*, 4:89
- Leknes, S., Berna, C., Lee, M. C., Snyder, G. D., Biele, G., and Tracey, I. (2013). The importance of context: when relative relief renders pain pleasant. *Pain*, 154(3):402–410
- 2012 Green, N., Biele, G. P., and Heekeren, H. R. (2012). Changes in neural connectivity underlie decision threshold modulation for reward maximization. *The Journal of neuroscience: the official journal of the Society for Neuroscience*, 32(43):14942–14950

- 2011 Biele, G., Rieskamp, J., Krugel, L. K., and Heekeren, H. R. (2011). The neural basis of following advice. *PLoS biology*, 9(6):e1001089
- 2010 Basten, U., Biele, G., Heekeren, H. R., and Fiebach, C. J. (2010). How the brain integrates costs and benefits during decision making. *Proceedings of the National Academy of Sciences of the United States of America*, 107(50):21767–21772
- Philiastides, M. G., Biele, G., and Heekeren, H. R. (2010). A mechanistic account of value computation in the human brain. *Proceedings of the National Academy of Sciences of the United States of America*, 107(20):9430–9435
- Graef, S., Biele, G., Krugel, L. K., Marzinzik, F., Wahl, M., Wotka, J., Klostermann, F., and Heekeren, H. R. (2010). Differential influence of levodopa on reward-based learning in Parkinson's disease. *Frontiers in human neuroscience*, 4:169
- Mohr, P. N. C., Biele, G., and Heekeren, H. R. (2010). Neural processing of risk. *The Journal of neuroscience: the official journal of the Society for Neuroscience*, 30(19):6613–6619
- 2009 Biele, G., Rieskamp, J., and Gonzalez, R. (2009b). Computational models for the combination of advice and individual learning. *Cognitive science*, 33(2):206–242
- Krugel, L. K., Biele, G., Mohr, P. N. C., Li, S.-C., and Heekeren, H. R. (2009). Genetic variation in dopaminergic neuromodulation influences the ability to rapidly and flexibly adapt decisions. *Proceedings of the National Academy of Sciences of the United States of America*, 106(42):17951–17956
- Biele, G., Erev, I., and Ert, E. (2009a). Learning, risk attitude and hot stoves in restless bandit problems. *Journal of mathematical psychology*, 53(3):155–167