CV Guido Biele

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

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** Statistical modeling ADHD	Norwegian Institute of Public Health
2017-2018	**Researcher** ADHD Statistical modeling	Oslo University Hospital
2010-2013	**Post doc** ADHD Cognitive Neuroscience	University of Oslo, Department of Psychology
2007-2010	**Post doc** Cognitive Neuroscience	Max Planck Institute for Human Development Freie Universität Berlin

Selected grants

2024	**co-PI**	Joint Action Mental Health Together – MENTOR	25 000k NOK
2024	**co-PI**	Barn som vokser opp i fattigdom	7 000k NOK
2020	**PI**	Effect of medication and special education on school performance of children with ADHD	12 000k NOK
2018	**PI**	A register study of regional variations and parental effects on diagnosis and pharmacological treatment of ADHD	300k NOK
2016	**Researcher**	**NFR:** Prenatal exposure to toxicants & childhood neurodevelopmental disorders & cognitive functions	10 000k NOK
2015	**co-PI**	**NFR:** The effect of prenatal nutrition on ADHD	8 400k NOK
2011	**PI**	**NFR:** Effect of Methylphenidate on Decision Making in ADHD	6 000k NOK
	PI	**HSØ:** Influence of stimulant medication on brain processes for decision making in ADHD	2 250k NOK
	PI	**NK AD/HD, Tourettes Syndrom og Narkolepsi:** Decision making and learning in ADHD	250k NOK
2007	**PI**	**BMBF:** "Reward- and monitoring-based decision making in the healthy brain: behavior, genes, and neural correlates	1 200k NOK

Supervision

Ph.D., main supervisor:	Varnet Pérez (2025/26), de Aguas (2025), 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

Top publications: Science, PNAS (3x), PLoS Biology, European/American/International Journal of Epidemiology, Neuroscience and Biobehavioral Reviews. Journal of Neuroscience.

2026

Cordier, R., Wendelborg, C., and Biele, G. (2026). Is the Norwegian Education System Effective in Supporting Students With Special Educational Needs? Evidence From Population-Based Longitudinal Data. *European Journal of Education*, 61(4):e70903

Brunborg, G. S., Biele, G., Askeland, R. B., Krogstad, I. E., Tveit, O. B., Aase, H., Støle, H. S., and Bang, L. (2026). Effects of requiring active parental consent on participation, sample composition, and mental health outcomes in school-based adolescent surveys: A cluster randomized trial. *Social Science & Medicine*, 405:119571

Eikemo, M., Løseth, G. E., Carlyle, M., Trøstheim, M., Ernst, G., Pazmandi, C., Thompson, M., Vezzani, C., Meier, I. M., Roland, M. N., Johnstone, T., Heilig, M., Biele, G., and Leknes, S. (2026). Effects of psychosocial stress on opioid self-administration in healthy participants: a randomized, placebo-controlled crossover trial. *Nature Mental Health*, 4(9):1393–1403

Pedersen, M. L., Mowinckel, A. M., Ziegler, S., Fredriksen, M., Bjørnerud, A., Endestad, T., and Biele, G. (2026). Selective enhancement of cost sensitivity by methylphenidate in adult ADHD: a randomized placebo-controlled trial. *Psychological Medicine*, 56:e234

Biele, G., Bårdstu, S. K., and Syse, A. (2026). Kjennetegn ved barn som vokser opp i fattigdom: oppvekstsvilkår, helse- og skoleforhold. Technical report, Norwegian Institute of Public Health

2025

Halvorsen, O. K., Biele, G., Zachrisson, H. D., and Brandlistuen, R. E. (2025). Socioeconomic disparities in special education provision. *European Journal of Special Needs Education*, 40(6):1110–1128

Sheikh, N. S., Straiton, M. L., Biele, G. P. E., and Kjøllesdal, M. K. R. (2025b). Diagnoses of Mental Health Disorders Among Norwegian-Born Youth and Young Adults with Immigrant Parents—A Register-Based Study. *Journal of Immigrant and Minority Health*, 27(5):667–676

Tveit, O. B. and Biele, G. (2025). The effect of municipality-level social media use on youth mental health. *BMC Public Health*, 25(1):3472

de Aguas, J., Henckel, L., Pensar, J., and Biele, G. (2025a). Causal Inference amid Missingness-Specific Independencies and Mechanism Shifts. In Chiappa, S. and Magliacane, S., editors, *Proceedings of the Forty-first Conference on Uncertainty in Artificial Intelligence*, volume 286 of *Proceedings of Machine Learning Research*, pages 31–44. PMLR

de Aguas, J., Krumscheid, S., Pensar, J., and Biele, G. (2025b). The Probability of Tiered Benefit: Partial Identification with Robust and Stable Inference. In Huang, B. and Drton, M., editors, *Proceedings of the Fourth Conference on Causal Learning and Reasoning*, volume 275 of *Proceedings of Machine Learning Research*, pages 90–113. PMLR

Varnet Pérez, T., Øvergaard, K. R., Frigessi, A., and Biele, G. (2025). Long-term effect of pharmacological treatment on academic achievement of Norwegian children diagnosed with ADHD: a target trial emulation. *International Journal of Epidemiology*, 54(2):dyaf010

de Aguas, J., Pensar, J., Varnet Pérez, T., and Biele, G. (2025c). Recovery and inference of causal effects with sequential adjustment for confounding and attrition. *Journal of Causal Inference*, 13(1):1–29

Ingeborgrud, C. B., Oerbeck, B., Friis, S., Pripp, A. H., Aase, H., Biele, G., Dalsgaard, S., and Overgaard, K. R. (2025). Low perceived social support in mothers during pregnancy and early childhood; associations with anxiety and ADHD symptoms in children at 3 and 8 years. *Social Psychiatry and Psychiatric Epidemiology*, 60:895–903

Overgaard, K. R., Oerbeck, B., Friis, S., Pripp, A. H., Aase, H., Ingeborgrud, C. B., and Biele, G. (2025). Functional Impairment Related to ADHD From Preschool to School Age. *Journal of Attention Disorders*, 29:220–230

Sheikh, N. S., Biele, G. P. E., Straiton, M. L., and Kjøllesdal, M. K. R. (2025a). Health among youth and young adults born in the nordic countries to immigrant parents- a scoping review. *BMC Public Health*, 25:243

2024

Ingeborgrud, C. B., Oerbeck, B., Friis, S., Pripp, A. H., Zeiner, P., Aase, H., Biele, G., Dalsgaard, S., and Overgaard, K. R. (2024). Do maternal anxiety and depressive symptoms predict anxiety in children with and without ADHD at 8 years? *European Child & Adolescent Psychiatry*, 33:3169–3178

Overgaard, K. R., Oerbeck, B., Friis, S., Pripp, A. H., Aase, H., Biele, G., Ingeborgrud, C. B., Polanczyk, G. V., and Zeiner, P. (2024). Early and repeated screening detects children with persistent attention-deficit/hyperactivity disorder. *European Child & Adolescent Psychiatry*, 33:1807–1815

2023

Hansen, T., Qureshi, S., Gele, A., Haugel, L., Biele, G., Surén, P., and Kjøllesdal, M. (2023). Developmental disorders among Norwegian-born children with immigrant parents. *Child and Adolescent Psychiatry and Mental Health*, 17(1):3

Biele, G., de Aguas, J., and Varnet Pérez, T. (2023). What can we conclude about the effect of parental income on offspring mental health? *International Journal of Epidemiology*, 52:641–643

Ingeborgrud, C. B., Oerbeck, B., Friis, S., Zeiner, P., Pripp, A. H., Aase, H., Biele, G., Dalsgaard, S., and Overgaard, K. R. (2023). Anxiety and depression from age 3 to 8 years in children with and without ADHD symptoms. *Scientific Reports*, 13:15376

Overgaard, K. R., Oerbeck, B., Friis, S., Pripp, A. H., Aase, H., Biele, G., Ingeborgrud, C. B., Polanczyk, G. V., and Zeiner, P. (2023). Attention-deficit/hyperactivity disorder from preschool to school age: change and stability of parent and teacher reports. *European Child & Adolescent Psychiatry*, 32:1947–1955

Weyde, K. V. F., Winterton, A., Surén, P., Andersen, G. L., Vik, T., Biele, G., Knutsen, H. K., Thomsen, C., Meltzer, H. M., Skogheim, T. S., Engel, S. M., Aase, H., and Villanger, G. D. (2023). Association between gestational levels of toxic metals and essential elements and cerebral palsy in children. *Frontiers in Neurology*, 14:1124943

2022

Biele, G., Lekhal, R., Overgaard, K. R., Vaage Wang, M., Eek Brandlistuen, R., Friis, S., and Zeiner, P. (2022a). The effect of special educational assistance in early childhood education and care on psycho-social difficulties in elementary school children. *Child and Adolescent Psychiatry and Mental Health*, 16(1):14

Biele, G., Overgaard, K. R., Friis, S., Zeiner, P., and Aase, H. (2022b). Cognitive, emotional, and social functioning of preschoolers with attention deficit hyperactivity problems. *BMC Psychiatry*, 22(1):78

2021

Jones, T. C., Biele, G., Mühlemann, B., Veith, T., Schneider, J., Beheim-Schwarzbach, J., Bleicker, T., Tesch, J., Schmidt, M. L., Sander, L. E., Kurth, F., Menzel, P., Schwarzer, R., Zuchowski, M., Hofmann, J., Krumbholz, A., Stein, A., Edelmann, A., Corman, V. M., and Drosten, C. (2021). Estimating infectiousness throughout SARS-CoV-2 infection course. *Science*

Weyde, K. V. F., Olsen, A.-K., Duale, N., Kamstra, J. H., Skogheim, T. S., Caspersen, I. H., Engel, S. M., Biele, G., Xia, Y., Meltzer, H. M., Aase, H., and Villanger, G. D. (2021). Gestational blood levels of toxic metal and essential element mixtures and associations with global DNA methylation in pregnant women and their infants. *Science of the Total Environment*, 787:147621

Borge, T. C., Biele, G., Papadopoulou, E., Andersen, L. F., Jacka, F., Eggesbø, M., Caspersen, I. H., Aase, H., Meltzer, H. M., and Brantsæter, A. L. (2021). The associations between maternal and child diet quality and child ADHD – findings from a large Norwegian pregnancy cohort study. *BMC Psychiatry*, 21(1):139

Choi, G., Villanger, G. D., Drover, S. S. M., Sakhi, A. K., Thomsen, C., Nethery, R. C., Zeiner, P., Knudsen, G. P., Reichborn-Kjennerud, T., Øvergaard, K. R., Herring, A. H., Skogan, A. H., Biele, G., Aase, H., and Engel, S. M. (2021). Prenatal phthalate exposures and executive function in preschool children. *Environment International*, 149:106403

2020

Jore, T., Oppedal, B., and Biele, G. (2020). Social anxiety among unaccompanied minor refugees in Norway.The association with pre-migration trauma and post-migration acculturation related factors. *Journal of Psychosomatic Research*, 136:110175

Jones, T. C., Mühlemann, B., Veith, T., Biele, G., Zuchowski, M., Hofmann, J., Stein, A., Edelmann, A., Corman, V. M., and Drosten, C. (2020). An analysis of SARS-CoV-2 viral load by patient age. medRxiv

Skogheim, T. S., Villanger, G. D., Weyde, K. V. F., Engel, S. M., Surén, P., Øie, M. G., Skogan, A. H., Biele, G., Zeiner, P., Øvergaard, K. R., Haug, L. S., Sabaredzovic, A., and Aase, H. (2020). Prenatal exposure to perfluoroalkyl substances and associations with symptoms of attention-deficit/hyperactivity disorder and cognitive functions in preschool children. *International Journal of Hygiene and Environmental Health*, 223(1):80–92

2019

Borge, T. C., Brantsæter, A. L., Caspersen, I. H., Meltzer, H. M., Eek Brandlistuen, R., Aase, H., and Biele, G. (2019). Estimating the Strength of Associations Between Prenatal Diet Quality and Child Developmental Outcomes: Results From a Large Prospective Pregnancy Cohort Study. *American Journal of Epidemiology*, 188(11):1902–1912

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. *European Journal of Epidemiology*, 34(10):927–938

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. *Psychological Assessment*, 31(8):985–994

2018

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. *Tidsskrift for Den norske legeforening*, 138(20)

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. *Journal of the American Academy of Child and Adolescent Psychiatry*, 57(6):428–435

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. *Brain Imaging and Behavior*, 12(3):640–652

2017

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. *BMJ Open*, 7(9):e016777

Eikemo, M., Biele, G., Willoch, F., Thomsen, L., and Leknes, S. (2017). Opioid Modulation of Value-Based Decision-Making in Healthy Humans. *Neuropsychopharmacology: official publication of the American College of Neuropsychopharmacology*

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

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. *NeuroImage: Clinical*

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

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*, 41(3):150159

Gerhardt, H., Biele, G. P., Heekeren, H. R., and Uhlig, H. (2016). Cognitive load increases risk aversion. SFB 649 Discussion Paper 2016-011, Humboldt-Universität zu Berlin

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

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

Leknes, S., Berna, C., Lee, M. C., Snyder, G. D., Biele, G., and Tracey, I. (2013a). Response to the commentary "Multiple potential mechanisms for context effects on pain". *Pain*, 154(8):1485–1486

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. (2013b). The importance of context: when relative relief renders pain pleasant. *Pain*, 154(3):402–410

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*, 33(9):3939–3952

2012

Meshi, D., Biele, G., Korn, C. W., and Heekeren, H. R. (2012). How expert advice influences decision making. *PLOS ONE*, 7(11):e49748

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*, 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

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

Philiastides, M. G., Biele, G., Vavatzanidis, N., Kazzer, P., and Heekeren, H. R. (2010b). Temporal dynamics of prediction error processing during reward-based decision making. *NeuroImage*, 53(1):221–232

Mohr, P. N. C., Biele, G., and Heekeren, H. R. (2010a). Neural processing of risk. *The Journal of Neuroscience*, 30(19):6613–6619

Philiastides, M. G., Biele, G., and Heekeren, H. R. (2010a). 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

Mohr, P. N. C., Biele, G., Krugel, L. K., Li, S.-C., and Heekeren, H. R. (2010b). Neural foundations of risk-return trade-off in investment decisions. *NeuroImage*, 49(3):2556–2563

2009

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

Biele, G., Rieskamp, J., and Gonzalez, R. (2009b). Computational models for the combination of advice and individual learning. *Cognitive Science*, 33(2):206–242

2008

Biele, G., Rieskamp, J., and Czienskowski, U. (2008). Explaining Cooperation in Groups: Testing Models of Reciprocity and Learning. *Organizational Behavior and Human Decision Processes*, 106(2):89–105

2007

Pachur, T. and Biele, G. (2007). Forecasting from ignorance: the use and usefulness of recognition in lay predictions of sports events. *Acta Psychologica*, 125(1):99–116