

Bartłomiej KroczeK

Data Scientist. PhD Student.

Krakow CogSciLab | Interational PhD programme in Cognitive Neuroscience.

Currently

Working on my PhD dissertation: **Relationships between rhythmic eye movements and oscillatory brain activity.**

Specialized in

Statistical Analysis. Eye Tracking. Time series analysis in application to neuroscience.

Research interests

Cognitive Neuroscience. Psychophysics. Visual Attention.

Education

PhD in Cognitive Neuroscience, Jagiellonian University, Kraków, Poland. October 2019 - now

MS in Computer Science (Modeling, Cognition and Control), Jagiellonian University, Kraków, Poland. 2015 - 2019

BSc in Computer Science (Modeling, Cognition and Control), Jagiellonian University, Kraków, Poland. 2011 - 2015

Grants

Founded by National Science Centre grant awarded to prof. A. Chuderski "Visual working memory mechanisms" (OPUS9). Position: Data Scientist 2016 - now

Funded by National Science Centre grant to prof. A. Chuderski: The role of binding mechanism and integration of relational structures in the process of abstract thinking and reasoning: psychometric, behavioral, oculographic and spectroscopic studies. Position: Data Scientist 2014 - now

EEG study. Founded by National Science Centre grant awarded to dr. M. Senderecka: "Influence of emotions on perception, response inhibition, and error monitoring: ERP analysis (2016-2019). Position: Research Assistant 2016 - 2018

Funded by National Science Centre grant awarded to prof. A. Chuderski: Chasing the homunculus of self-control: Mechanisms of goal selection and application (2011-2016). Position: Research Assistant 2013 - 2016

Founded by National Science Centre grant awarded to dr. M. Senderecka "Electrophysiological correlations of the reaction inhibition process. The research in the signal STOP task paradigm". Position: Research Assistant 2013 - 2014

Publications

Journals

Socially induced negative emotions elicit neural activity in the mentalizing network in a subsequent inhibitory task Senderecka, M, Matyjek, M, KroczeK, B, & OciePKa, M, *Neuroscience* 2021

Why People Err on Multiple-choice Analogical Reasoning Tests? KroczeK, B & Chuderski, A, *Conference Paper: Annual Meeting of the Cognitive Science Society* 2021

Socially induced negative affective knowledge modulates early face perception but not gaze cueing of attention	2021
Matyjek, M, KroczeK, B, & Senderecka, M, Psychophysiology	
Galton and Spearman revisited: Can single general discrimination ability drive performance on diverse sensorimotor tasks and explain intelligence?	2020
Jastrzębski, J, KroczeK, B, & Chuderski, A Journal of Experimental Psychology: General	
Metacognitive experience on Raven's matrices versus insight problems	2020
Chuderski, A, Jastrzębski, J, KroczeK, B, Kucwaj, H, and OciePKa, M Metacognition and Learning	
Delta-gamma coupling as a potential neurophysiological mechanism of fluid intelligences	2018
Gągół, A, Magnuski, M, KroczeK, B, Kałamała, P, OciePKa, M, Santarnecchi, E, and Chuderski, A Intelligence	
Post-Error Brain Activity Correlates with Incidental Memory for Negative Words	2018
Senderecka, M, OciePKa, M, Matyjek, M, and KroczeK, B Frontiers in Human Neuroscience	
Short-Duration Affective States Induced by Emotional Words Improve Response Inhibition: An Event-Related Potential Study	2018
Senderecka, M, OciePKa, M, Matyjek, M, and KroczeK, B Neuroergonomics	
ERP correlates of the conflict level in the multi-response Stroop tasks	2016
Chuderski, A, Senderecka, M, Kałamała, Pa, KroczeK, B, and OciePKa, M Brain research	
No Spearman's Law of Diminishing Returns for the working memory and intelligence relationships	2016
KroczeK, B, OciePKa, M, and Chuderski, A Polish Psychological Bulletin	

Occupation

CogSciLab , Jagiellonian University, Kraków, Poland.	2013 - now
Research Assistant	
Data Scientist	