

Bartłomiej KroczeK

Data Scientist. PhD Student.

Krakow CogSciLab | Interational PhD programme in Cognitive Neuroscience.

Currently Working on my PhD dissertation: **Does attention in perceptual tasks change over time?**

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

Research interests Cognitive Neuroscience. Psychophysics. Visual Attention. Decision Making.

Education

PhD in Cognitive Neuroscience, Jagiellonian University, Kraków, Poland.	Oct 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

Uncovering the course of analogical mapping using eye tracking KroczeK, B, Ciechanowska, I, & Chuderski, A, <i>Cognition</i>	2022
Socially induced negative emotions elicit neural activity in the mentalizing network in a subsequent inhibitory task Senderecka, M, Matyjek, M, KroczeK, B, & Ociepka, M, <i>Neuroscience</i>	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 Matyjek, M, Kroczek, B, & Senderecka, M, <i>Psychophysiology</i>	2021
Galton and Spearman revisited: Can single general discrimination ability drive performance on diverse sensorimotor tasks and explain intelligence? Jastrzębski, J, Kroczek, B, & Chuderski, A <i>Journal of Experimental Psychology: General</i>	2020
Metacognitive experience on Raven's matrices versus insight problems Chuderski, A, Jastrzębski, J, Kroczek, B, Kucwaj, H, and Ociepka, M <i>Metacognition and Learning</i>	2020
Delta-gamma coupling as a potential neurophysiological mechanism of fluid intelligences Gałol, A, Magnuski, M, Kroczek, B, Kałamała, P, Ociepka, M, Santarnecchi, E, and Chuderski, A <i>Intelligence</i>	2018
Post-Error Brain Activity Correlates with Incidental Memory for Negative Words Senderecka, M, Ociepka, M, Matyjek, M, and Kroczek, B <i>Frontiers in Human Neuroscience</i>	2018
Short-Duration Affective States Induced by Emotional Words Improve Response Inhibition: An Event-Related Potential Study Senderecka, M, Ociepka, M, Matyjek, M, and Kroczek, B <i>Neuroergonomics</i>	2018
ERP correlates of the conflict level in the multi-response Stroop tasks Chuderski, A, Senderecka, M, Kałamała, Pa, Kroczek, B, and Ociepka, M <i>Brain research</i>	2016
No Spearman's Law of Diminishing Returns for the working memory and intelligence relationships Kroczek, B, Ociepka, M, and Chuderski, A <i>Polish Psychological Bulletin</i>	2016

Occupation

CogSciLab, Jagiellonian University, Kraków, Poland.
 Research Assistant
 Data Scientist

2013 - now