

## **MSc Research Projects**

Completed by students on the MSc Psychology, MSc Brain Imaging & Cognitive Neuroscience and MSc Computational Neuroscience & Cognitive Robotics

### **2016-2017**

- An exploration of the predictors of instruction following in an academic environment
- An exploratory investigation into instruction following: The development of the instruction following task
- An exploratory study into the relationships between hypomania, mental imagery and interoception investigating the effects of manipulated symbolic and realistic threat on asymmetrical motivation in intergroup relations
- Behavioural and neural differences of sequential actions between simple key-pressing and everyday tea-making
- Brain activation for schizophrenia patients and healthy controls when carrying out working memory tasks
- Can boosting attachment security and caregiving responsiveness reduce negative affect?
- Conduct disorder, callous-unemotional traits and surface-based cortical structure in female adolescents
- Creativity in tool use: An exploration of the relationships between verbal creativity and object manipulation
- Depressive symptoms, the use of mental imagery and interoception in young adults
- Different predictive performance at pursuit onset and offset: trajectory optimisation
- Discovering electrophysiological markers of conscious speech processing
- Evaluation of a three-stage puzzlebox as a tool for investigating cumulative culture
- Examining the role of the right precuneus and left intraparietal sulcus in proactive and reactive attention
- Examining transcranial direct current stimulation effects on the functional connectivity of the left and right primary motor cortices via resting-state functional magnetic resonance imaging
- Explicit vs implicit EMG-Biofeedback in robotic rehabilitation

- Exploring the development of subjective well-being: An agent-based modelling approach to the Theory of Planned Behaviour and Motivation
- Feeling is believing: Imaging and behavioural studies investigating texture discrimination, and affective touch.
- Food-specific and neutral object inhibitory control in ADHD
- Human wrist position and movement coding using computational proprioception and artificial neural networks
- Inter-modality inhibition: The effect of driven alpha ERS in non-task relevant sensory
- Investigating the error-related negativity in misophonia
- Investigating the femme fatale – relationship between psychopathy, emotion recognition and sensitivity to reward and punishment in females
- Investigating the time-course of object representations and the relationship with similarity judgements using electroencephalography
- Learning transformations of rigid bodies under manipulation using modularized deep learning
- Motion capture and virtual reality: An adaptive program for assessing impaired movement-performance in the upper-limb
- Motion perception in children with Autism Spectrum Disorder (ASD)
- Postural control in Niemann-Pick Type C patients and healthy controls
- Probing the temporal dynamics of event perception and event recall from memory
- Reading processes of good and poor adolescent comprehenders during silent reading: An eye-movement study
- Reconsolidation of episodic memory in humans: Does the original memory still exist?
- Relationship between performance in the Stop-Signal Task with the three dimensions of the Cognitive Failure Questionnaire
- Representation of the self and the stranger in physical space: An fMRI neuroimaging study
- Representational similarity analysis of EEG and Behavioural Judgements: Can our perceived similarity of object predict the brain's temporal object processing?

- Static standing balance in children: Sensory integration and neurodegeneration
- The effect of accumulated information over time on the ventriloquist effect
- The effect of natural satiation on delay discounting, response inhibition and fMRI BOLD responses
- The effect of tDCS over the right inferior parietal lobule on the Default Mode Network and mind-wandering propensity
- The effect of theta entrainment on gamma and phase-amplitude coupling during episodic memory encoding
- The effects of cognitive training on working memory performance during arithmetic
- The effects of maltreatment on subliminal face processing amongst adolescents with Conduct Disorder
- The effects of temporal and spatial contextual clustering on episodic memory in the real world
- The influence of food consumption on attentional control, food-related memory and related neural response
- The processing of metonymy: Linking findings from eye-tracking and electroencephalography
- The role of post-error theta-alpha coupling in behavioural modifications aimed at reducing inhibition failures
- The role of reinforcement in bimanual force production
- The role of the left intraparietal sulcus and the right precuneus in attention: A TMS study
- The short- and long-term effects of electrical brain stimulation on arithmetic processing
- The temporal dynamics of event perception and memory retrieval
- To me, to you? Managing uncertainty in object handover
- Validation of an adaptive and assistive three-dimensional upper limb rehabilitation task in virtual reality
- Variable right temporoparietal junction cortical thickness in schizophrenia spectrum disorder patients with autistic traits

- What affects entrepreneurial self-efficacy: An exploratory study for the antecedent factor of entrepreneurial self-efficacy
- Where do we look under different conditions: A behavioural and model based account

## **2015-2016**

- A correlational study of psychopathic and anxiety traits and their effect on emotional recognition
- An investigation into the mechanisms of selective attention and value in humans
- Anticipatory and adaptive timing in synchronization in rhythm changing tasks: Analysis of finger tapping in time with tempo changing metronome or pitch-change sequences
- Assessing spontaneous and prompted imitation of actions with objects and gestures in children with autism
- Automatic adaptation of gains in the computed torque model of a robot manipulator
- Behavioural and fMRI study of spatial metaphors for social space
- Brain computer interface control of a haptic device
- Call sequences in wild bonobo communication: A case for the importance of individual differences
- Combining the Bayesian Causal Inference model and a drift-diffusion race model to examine the effect of stimulus duration on the ventriloquist effect
- Construct an alert model for navigation based on robots local cost map
- Contributions of the left- inferior parietal sulcus and temporo-parietal junction to proactive and reactive attention suppression
- Deep hierarchies for visual object classification and categorisation
- Depression in adults with Williams syndrome
- Do autistic traits and alexithymia play a role in the report of counterfactual emotions and risky decision-making?
- Do emotion regulation strategies mediate the relationship between callous-unemotional traits and aggression in individuals with conduct problems?
- Does functioning predict symptoms in those with 'at-risk mental states'?

- Does multisensory learning help new language acquisition: Evidence from American Sign Language and Mandarin learning
- Economic migrants: How do the British people perceive identification of migrants?
- Effect of non-invasive brain stimulation on motor learning
- Effects of reward on visual working memory in young adults and adolescents
- Electrophysiology of pattern glare stimuli in relation to visual stress
- Error-related brain activity in misophonia
- Geometric reasoning in human tool use
- How do we adapt to changing stimuli? A novel experiment and model comparison
- Imitation and invention a button code by young children
- Individual differences in self-reported instruction following behaviour and academic self-efficacy
- Investigating evidence accumulation in a multisensory localization task with electroencephalography and psychophysics
- Investigating the overlap of retinotopically mapped fMRI areas with orthographic representations
- Monitoring and merging the multisensory environment during sleep
- Morality and its usefulness, exploring the dark side
- Motion trajectory prediction using a noninvasive brain-computer interface
- Network model analysis of integrated brain functional network development from wakefulness to light sleep
- Neurocognitive correlates underlying visual hallucinations and distortions in the non-clinical population
- Next best view planning for object recognition
- Proactive and reactive controls: in the expression of autistic tendency and psychosis proneness
- Resolving object recognition in time using EEG

- Speech and non-speech processing in typically developing
- Testing a novel free association paradigm for spontaneous trait inference (STI)
- The effect of short-term martial arts training on motor coordination
- The effects of monetary reward and punishment on adaptive motor skill learning
- The effects of temporal and spatial contextual clustering on episodic memory in the real world
- The electrophysiology of motor observation and action
- The investigation of the woody filter technique for analyzing the conscious and unconscious perception
- The relationship between religious mental imagery and emotion in young adults across a spectrum of hypomanic-like experiences
- The role of cultural transmission on the structure of gestures in humans
- Toddlers and toddlers at risk for autism spectrum disorders
- Using social norm messages to prevent dissatisfaction associated with reduced portion size
- Visual-distortions are selectively correlated with dimensions of sub-clinical psychotic experiences: Evidence from the pattern-glare task