Social cognition and neuroscience (SCoNe)

Our research group brings together social, developmental, cognitive, and neuro-psychologists. We are enthusiastic about merging our different skills to address questions at the core of social-cognitive neuroscience, such as:

- How do we understand who other people are?
- How do we infer what they want, feel, and perceive?
- How do we communicate and collaborate with them?
- How do we cope when they reject us?

Our work stretches from behavioural studies of social cognition, through computational modelling of social decision making, to fMRI and patient studies of perspective taking, empathy, and pain. It includes developmental aspects of the “social mind” as well as studies of neuropsychological and neurodevelopmental disorders of social cognition. Our aim is to understand how social factors influence the mind and brain, and how the mind and brain support social interaction.

Resources and Postgraduate Training

The resources for conducting research in social cognition, neuropsychology and neuroimaging are all very accessible within the School. There are extensive facilities for running both group-based and laboratory-based research to investigate the cognitive, motivational, and affective processes that can help to explain social psychological phenomena. Cognitive neuroscience and neuropsychological research is largely conducted in the Behavioural Brain Sciences Centre (BBSC). The Centre includes a TMS lab, two 128 channel ERP labs, three 3D motion analysis systems, and several eye movement tracking systems (including facilities for measuring eye movements simultaneously from two participants engaged in joint action). The Centre supports computational modelling and patient testing, including case-studies of patients with acquired brain lesions. The **Birmingham University Imaging Centre (BUIC) (http://www.buic.bham.ac.uk/)** houses a Phillips 3-Tesla field-strength magnet dedicated to functional imaging experiments. The BUIC includes equipment to deliver auditory, visual, and somatic stimuli, and a mock scanner for pre-scan testing; it is further supported by a data analysis cluster within the BBSC. There is also access to a large (250+ and growing) panel of neuropsychological patients who have been screened for aspects of social cognition as well as for basic cognitive and executive processes.

Training in both the theory and practical aspects of social cognition and social neuroscience is available and includes guidance on all aspects of neuroimaging, from experimental design to data analysis. Funding for pilot neuroimaging studies is available through an application to the BUIC management committee.

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