

**Faculty of Business, Law and Social Sciences**

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| **Proposed Title:****Cultural and contextual differences in picture perception: building an ecological model of human visual perception** |
| **School: Social Sciences, Psychology** |
| **Proposed Supervisory Team:**Dr Eirini Mavritsaki, Dr Panagiotis Rentzelas and Prof. Maxine Lintern |
| **Abstract:**This is an innovative PhD research project aiming to investigate the role of culture upon human visual attention by merging psychological disciplines and quantitative experimental methodologies. We aim to examine the role of culture and social identity by investigating the psychophysiological processes involved in picture perception using observations from behavioural and cross-sectional studies and measurements from eye-tracking and electroencephalogram (EEG) equipment.Extensive literature suggest that members of different cultures differ in cognitive, emotional and motivational levels (Kitiyama & Uskul, 2011; Markus & Kitiyama, 1991). Individualism and collectivism are the cultural constructs which are most commonly cited in cross-cultural social psychological research and are highly informative to the understanding of cultural variations in human behaviour (Senzaki, Masuda and Ishii, 2014). Research comparing members of interdependent and collectivist East Asian cultures with independent and individualist European American cultures into picture perception showed that East Asians are more likely to attend to the perceptual field as whole and to perceive relationships between a salient object and background than European Americans (Nisbett & Masuda, 2003). Furthermore, research experimentally manipulating the cultural norms of individualism and collectivism in a minimal group paradigm managed to attenuate cultural-specific preferences for social factors beneficial in human motivation (Hagger, Rentzelas and Chatzisarantis, 2014). Suggesting that the psychological cross-cultural differences can be informed by ecological and contextual factors. The aim of this research project is to further investigate the mechanism of cross-cultural and contextual picture perception. The methodology employed will be experimental and quantitative, making use of the state of the art psychophysiological equipment in BCU (EEG and eye-tracker). This will be achieved by further examining the differences between individualist and collectivist culture members’ visual perception of salient objects. The salient objects will be presented amongst non-abstract objects (background) and we will investigate the cultural differences in bottom-up as well as top-down saliency. This work will focus on empirically predicting cultural differences on visual perception, computational modelling will also be used but is not going to be part of the proposed postgraduate research program.  |
| **Research Environment:** The proposed studies will be conducted in Birmingham City University. Birmingham City University has invested massively in research by moving the Department of Psychology into a new building, with newly equipped laboratories for experiments. The department is equipped with state of the art eye-tracking, electroencephalogram (EEG) and further equipment and is further investing in obtaining transcranial direct –current stimulation (tDCS) and Biopac equipment. The PhD student on this project will benefit from close interactions with another 10 PhD students in Psychology. The Department of Psychology holds regular seminars and research cluster meetings that the PhD student can participate and benefit from interaction of research ideas. |
| **Applicant Requirements:**The applicant needs to have prior experience in developing, running and analysing experiments. Knowledge of Quantitative Methods Analysis. |
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