

Fernando Bravo's Report 2014

The purpose of my research is to investigate, from a neuroscientific perspective, the effects of music upon the emotional processing of visual information. So far, my research has provided strong evidence for the engagement of a precise neural network when abstracting emotional information from musical structures. This type of research (analysis of music in specific audiovisual contexts) provides a unique opportunity to explore links between musical structure and emotional response. A precise delineation of the brain mechanisms involved in this process will provide a model system which may prove valuable for understanding the breakdown of emotional processing in disease states.

As planned, the funds that I received from the CSAR Award were utilised for the development of my last functional Magnetic Response Imaging (fMRI) study. Specifically, the funds were used to support travel costs to the Imaging Centre where the neuroscientific studies were conducted (Fundacion Cientifica del Sur Diagnostic Centre in Buenos Aires, Argentina), and expenses to cover scanning sessions (including structural and functional MRIs).

This study involved the design and preliminary testing of an audiovisual paradigm that proved effective in measuring the psychological functions and the underlying neural mechanisms associated with mental state attributions and contextual memory processes. Furthermore, the results supported the use of musical materials, presented as emotion stimuli with systematically controlled variations in intensities of expression, for investigating subtle deficits in emotion processing.

I am deeply grateful to the Cambridge Society for the Application of Research for supporting my research project.