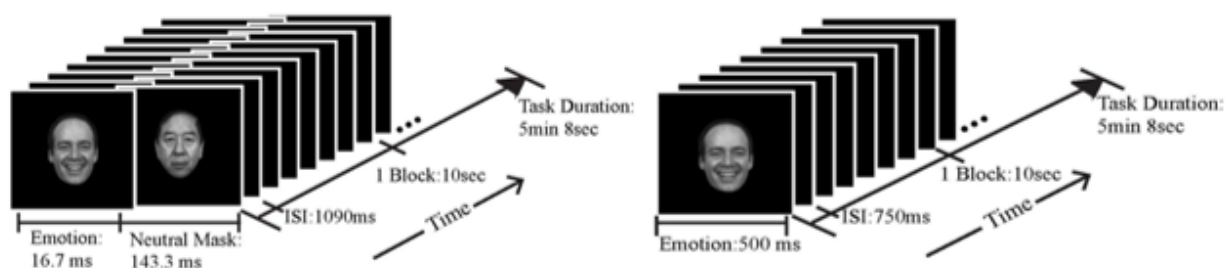# fMRI Facial Emotion Paradigm

The fMRI Facial Emotion Paradigm may be pulled from the iSPOT fMRI Paradigms program. The iSPOT program is comprised of software called "Stimsoft", and has been developed by Brain Resource to run tasks during recording of fMRI data. In the attached Brain Resource fMRI Manual v1.2.1, the facial emotion paradigms are Emotion – Nonconscious in test 3, and Emotion – Conscious in test 4.

During the fMRI Facial Emotion Paradigm, blood oxygenation level-dependent contrast functional images will be acquired with echo-planar T1*-weighted imaging using 3.0 Tesla GE Discovery MR750 scanner (GE Healthcare, Milwaukee, Wisconsin) with a 32-channel head coil. Each whole brain volume will consist of 45 interleaved 3 mm thick axial/oblique slices (74 x 74 matrix; TR, 2000 ms; TE, 27.5 ms; size, 3 x 3 x 3 mm; FOV, 222 mm; flip angle, 77°). For the facial emotion viewing task we will acquire 154 volumes over 5 minutes and 8 seconds. To ensure BOLD saturation, three dummy scans will be acquired at the start of each acquisition. A high-resolution T1-weighted structural scan will be acquired using a 3D spoiled gradient echo (SPGR) sequence at the end of the imaging session for use in normalization of the fMRI data into standard space.

Verbal instructions: In this task, you will be seeing a series of faces presented on the screen. In the first set, you will see pairs of faces at a time. Don't be worried if you feel like you might have missed one of the faces, some come on very quickly and can be easy to miss. This task will last 5 minutes, and all you will need to do is watch the faces and pay attention. In the second part of the task, you will be doing the same thing as the previous task, but with viewing a new set of faces. This will be 5 minutes long again, and you will only need to view the faces and pay attention. There is still no need to make button presses.

Task design for "Emotion – Nonconscious" and "Emotion – Conscious" tests in the fMRI Facial Emotion Paradigm.