The left right judgement task in people with and without shoulder pain: development of a testing protocol

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Background: Pain has been shown to alter the image of the body in the brain (the body schema).   This induces perceptual changes ie. reduces the ability to recognise left from right (otherwise known as the left/right judgement task or laterality). This has been demonstrated in painful conditions of the hand, back and neck, and in a small group of patients with frozen shoulder.

Purpose: This project will determine the accuracy and response times for the left/right judgement task (LRJT) in asymptomatic subjects and those with current shoulder pain or a history of shoulder pain. If perceptual changes are demonstrated in subjects with shoulder pain therapies to address these changes may provide alternative pathways to treat painful shoulder dysfunction.

Design and Setting: Experimental cross-sectional design utilising an online LRJT.

Participants: Participants both with and without current shoulder pain or a history of shoulder pain will be recruited through physiotherapy and pain science websites, and a network of health professionals interested in shoulder function.

Methods: Participants will sit at a computer of convenience and be directed to the project host website displaying the participation information statement and accompanying digital consent form. Participants will provide demographic information, answer a short questionnaire including the SPADI and then be directed to the LRJT. This LRJT consists of 3 sets of randomly displayed images – one set each of; hand, whole upper limb in provocative postures, and foot images (as a control task). Response time and accuracy in determining if the image is a right or left body part will be compared between normal and symptomatic subjects.

Results: The study is currently in progress, appropriate data will be presented.

Clinical Relevance: If perceptual changes are demonstrated in subjects with shoulder pain this will provide evidence for investigating the use of novel methods of treatment for shoulder dysfunction eg. graded motor imagery, mirror therapy.