Ancillary Information from:

Chen, Z., Williams, K. D., Fitness, J., & Newton, N. (in press). When hurt won't heal: Exploring the capacity to relive social and physical pain. *Psychological Science.*

Study 1

Method

Participants

Sixty-one students enrolled in an introductory to psychology course at Macquarie University (14 men, 47 women) completed the survey for partial course credit. Participants' mean age was 21.6 years (*SD* = 6.2, range = 18 – 50 years).

Materials

McGill Pain Questionnaire (MPQ) (Melzack, 1975; 1983). The MPQ is a 78-item self-report questionnaire intended for the psychometric assessment of pain syndromes. The MPQ instrument comprises 20 separate subcategories of single word pain descriptors. These subcategories are assigned to one of four major dimensions of pain quality: Sensory (e. g., burning), Affective (e. g., terrifying), Evaluative (e. g., intense) and Miscellaneous (e. g., nagging). Three types of measures are commonly obtained from the MPQ, however only one was used in the current study: the Pain Rating Index (PRI), which indicates participants' current level of pain feeling.

Pain Slide. The Pain Slide, a visual analog scale typically used in doctors' surgeries, consists of a ruler marked with a 10-point scale (1 = no pain, 10 = intense pain) and with drawings of corresponding facial expressions denoting pain. Participants move a tab up and down the scale depending on the intensity of pain they are experiencing.

Procedure

Participants were tested individually at different experimental sessions lasting approximately 30 minutes. Each participant completed a set of questionnaires via a computer program (MediaLab, Jarvis, 2005). Participants were first asked to complete a

series of demographic questions, then to recall and to try to actually re-live an experience of physical injury, and an experience of betrayal by a close other, each of which had occurred within the previous five years. The order of the two painful experiences was counterbalanced. In order to help participants re-live their pain, they were given unlimited time to write open-ended accounts in which they described in detail what had happened to them and how they had felt.

Before writing each account, participants were asked to note how long ago the event had happened, and to rate how intense their pain had been at the time it had occurred. They also recorded how frequently they had told others about their painful experiences. Participants were then reminded to imagine they were actually re-living their pain, rather than simply remembering it. They were asked to indicate on the Pain Slide the degree of pain they were currently experiencing ("right now"), and their scores were recorded by the experimenter. Participants then completed the McGill Pain Questionnaire in relation to their current experience of pain. To eliminate any carry over effects between the physical and social pain experiences (and vice versa), participants were given a distracting, card-sorting task to complete between the two manipulations. Finally, participants were asked to rate how difficult it was to re-live, as opposed to recall, their physical and social pain on 5-point scales (1 = extremely easy, 5 = extremely difficult). Participants were also asked to simply choose which type of pain was harder to re-live.

Results

Relived social pain versus physical pain

Severity of re-lived social versus physical pain. Paired sample t-tests revealed significant differences between the severity of social ($M = 5.68$, $SD = 2.33$) and physical

pain (M = 2.03, SD = 2.19) as measured on the Pain Slide, t (60) = 10.37, $p < .001$, d = 1.61 (see figure 1). Similarly, paired sample t-tests indicated significant differences between social (M = 23.56, SD = 14.02) and physical PRI scores (M = 14.31, SD = 11.78) reported on the McGill Pain Questionnaire, t (60) = 5.26, $p < .001$, d = 0.71. Significant differences were also found between social and physical PRIs on each of the McGill Pain Questionnaire subcategories, with social pain scores higher than physical pain scores (see Table 1). To place these index scores into perspective, a meta-analysis of research using the McGill Pain Questionnaire (Wilkie, Savedra, Holzemer, Tesler, & Paul, 1990) found that mean scores for specific pain experiences ranged from 17.8 for dental pain, to 27.9 for low back pain. Labor pain was rated at 24.7.

Body parts where pain was re-lived. Participants were asked in which part of the body they were reliving the social and physical pain. Compared to the physical pain condition, participants reliving social pain were significantly more likely to report pain in their chests and hearts, t (60) = 4.18, $p < .000$ and t (60) = 3.49, $p < .001$ respectively.

Potential moderators

No significant age or gender effects were obtained in the study; nor were any significant relationships found between relived pain and event recency (how long ago the event has happened) or the amount words participants used to describe their experiences for either type of pain.