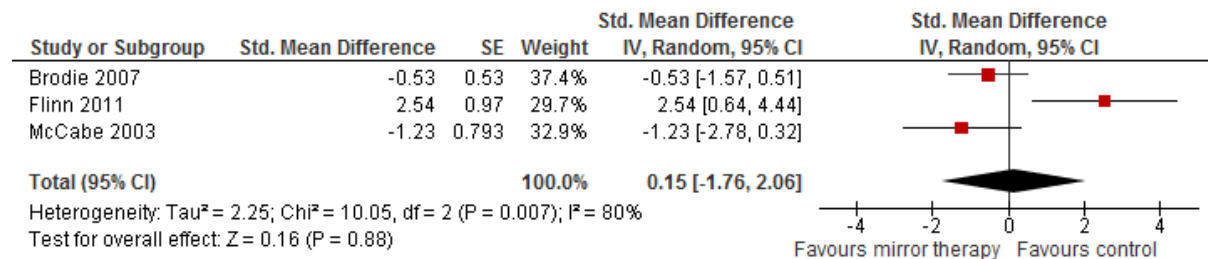


## Supplementary Material:

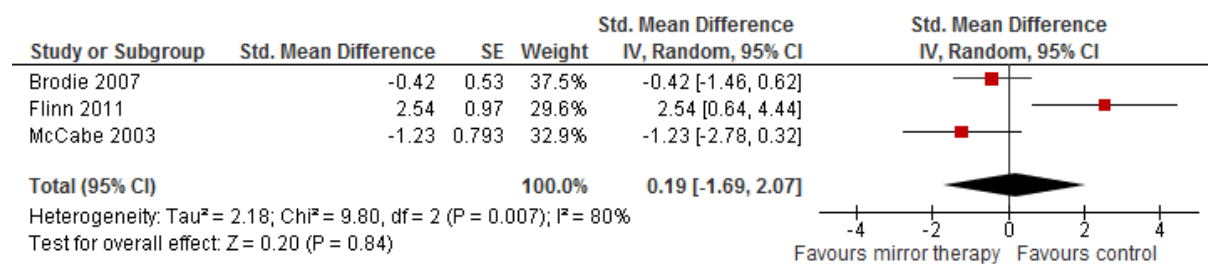
### Supplementary Figure 1:

#### Mirror therapy sensitivity analyses:

1. Imputing a correlation of 0.8 for Brodie et al [7] to estimate SD diff



2. Imputing a correlation of 0.6 for Brodie et al [7] to estimate SD diff



Comparison	Pressure Stimulus		Electrical Stimulus	
	Pain intensity rating	Pain unpleasantness rating	Pain intensity rating	Pain unpleasantness rating
<b>Within subject comparisons</b>				
Enlarged back vs normal	0.07 [-0.32, 0.46]	0.12 [-0.23, 0.46]	-0.08 [-0.57, 0.41]	0.04 [-0.22, 0.30]
Downscaled back vs normal	-0.10 [-0.41, 0.22]	-0.07 [-0.46, 0.32]	-0.06 [-0.61, 0.49]	-0.05 [-0.28, 0.17]
<b>Between subject comparisons – Back pain vs HC</b>				
Enlarged back	0.55 [-0.12, 1.21]	0.92 [0.23, 1.61]*	0.95 [0.25, 1.64]*	0.39 [-0.27, 1.05]
Normal back	0.66 [-0.01, 1.34]	0.48 [-0.18, 1.15]	1.23 [0.51, 1.95]*	0.31 [-0.35, 0.97]
Downscaled back	0.54 [-0.12, 1.21]	0.40 [-0.26, 1.06]	1.33 [0.60, 2.06]*	0.26 [-0.39, 0.92]

**Supplementary Table 1.** Standardised mean difference effect estimates with 95% confidence intervals for Diers et al 2013 [15]. Positive effect sizes refer to higher pain scores in the illusion condition (within comparisons) or higher pain scores in the back pain group (between comparisons). Interpretation: 1. People with back pain were no different from healthy controls for pain intensity of pressure stimuli or pain unpleasantness for electrical stimuli under any condition; 2. People with back pain experienced more unpleasantness to pressure stimuli than healthy controls did, but only when the back was enlarged; 3. People with back pain always rated electrical stimuli as more intense than healthy controls did, even in the normal size back condition. \*significant effect estimate

Comparison	Overall pain intensity	Continuous pain intensity	Paroxysmal pain intensity
<b>Visual illusion vs tDCS group/sham illusion</b>			
End of treatment	-0.11 [-1.01, 0.79]	0.27 [-0.64, 1.17]	0.46 [-0.45, 1.38]
First follow-up	0.44 [-0.47, 1.36]	0.48 [-0.44, 1.39]	0.23 [-0.68, 1.13]
Second follow-up	0.30 [-0.64, 1.23]	0.98 [-0.01, 1.97]	0.00 [-0.92, 0.92]
<b>Visual illusion vs Sham tDCS/sham illusion</b>			
End of treatment	0.48 [-0.44, 1.40]	-0.80 [-1.75, 0.14]	-1.34 [-2.36, -0.32]*
First follow-up	0.50 [-0.42, 1.42]	0.56 [-0.37, 1.48]	-1.01 [-1.98, -0.04]*
Second follow-up	0.59 [-0.33, 1.52]	0.54 [-0.38, 1.46]	-1.03 [-2.01, -0.06]*

**Supplementary Table 2.** Standardised mean difference effect estimates with 95% confidence intervals for follow-up data for Soler et al 2010 [59] for overall, continuous and paroxysmal pain intensity. Negative effect sizes indicate that the illusion treatment reduced pain to a greater extent than the control treatment.

\*significant effect estimate

Comparisons	CRPS	Clinical pain control group
<b>Within group comparisons: Condition and hand</b>		
Affected hand: Synchronous stroking + stabbing versus Control (Asynchronous stroking)	-0.09 [-0.42, 0.23]	0.12 [-0.06, 0.31]
Synchronous stroking+ stabbing: Affected hand versus unaffected hand	0.00 [-0.12, 0.13]	0.04 [-0.06, 0.14]
<b>Between group comparisons: CRPS vs Clinical pain</b>		
Synchronous stroking + stabbing: affected hand	-0.19 [-0.78, 0.40]	
Synchronous stroking + stabbing: unaffected hand	-0.16 [-0.75, 0.43]	
Asynchronous stroking: affected hand	0.02 [-0.57, 0.61]	

**Supplementary Table 3.** Standardised mean difference effect estimates with 95% confidence intervals for Reinersmann et al 2013 [54]. Positive effect estimates for within group comparisons suggest increased pain in the illusion condition (synchronous stroking + stabbing, hypothesised to increase pain). Positive effect estimates for between group comparisons suggest increased pain in CRPS.

Comparison	Odds ratio (95% CI)
MInc and MC	1.12 (0.96 to 1.31)
MInc and WInc	1.00 (0.85 to 1.17)
MInc and WC	1.12 (0.96 to 1.31)
MInc and general movement (IncC)	1.79 (1.53 to 2.11)*
MInc and general movement (CC)	2.03 (1.72 to 2.39)*

**Supplementary Table 4.** Effect estimates for within subject comparisons of incongruence illusions in Daenen et al. [13]

MInc = Mirror incongruence (incongruent movement illusion); MC = Mirror congruence; WInc = Whiteboard incongruence; WC = Whiteboard congruence; IncC = Incongruent control; CC = Congruent control. \*significant (p<0.05).