Table 1. *Demographics*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Study⬥ | Sample Size | Sex | Mean age in Years (Std. Deviation) | Prior publications |
| NPS Training Data | | | | |
| Study 1 (NSF) | 26 | 9 F | 27.8 | Atlas et al. (2014), Pain; Wager et al. (2013) NEJM |
| NPS Testing Data | | | | |
| Study 2 (BMRK3) | 33 | 22 F | 27.9 (9.0) | Woo et al. (2015), PLOS Biology  Wager et al. (2013) NEJM |
| Study 3 (BMRK4) | 28 | 10 F | 25.2 (7.4) | Krishnan et al. (*Under Review*) |
| Study 4 (IE) | 50 | 27 F | 25.1 (6.9) | Roy et al. (2014), Nature Neuroscience |
| Study 5 (ILCP) | 29 | 16 F\* | 20.4 (3.3)\*\* | Schmidt et al. (*In Prep.*) |
| Study 6 (EXP) | 17 | 9 F | 25.5 | Atlas et al. (2010), Journal of Neuroscience |
| Study 7 (SCEBL) | 26 | 11 F | 28 (9.3) | Koban et at. (*In Prep.*) |

*Note*. ⬥Internal study codes to facilitate tracking of datasets; \*Gender of one participant is unknown; \*\*Age of one participant is unknown. Publications include: (Atlas et al., 2010a; Atlas et al., 2014a; Roy et al., 2014; Wager et al., 2013; Woo et al., 2015b).

Table 2. *Stimulation Parameters*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Study | Intensities | Mean Temperature by  Intensity Level  (Within Subject SE) | Rating scale | Mean Ratings by Intensity Level  (Within Subject SEM) |
| NPS Training Data | | | | |
| Study 1 (NSF) | N, L, M, H  (Calibrated) | 40.8, 43.1, 45.1, 47.0  (0.16) | 0-8 VAS (0, no sensation; 1,  non-painful warmth; 2, lowpain; 5, moderate pain; 8, maximum tolerable pain) | 2.0, 2.8, 4.2, 6.6  (0.14) |
| NPS Testing Data | | | | |
| Study 2 (BMRK3) | 6 levels  (Fixed) | 44.3, 45.3, 46.3, 47.3, 48.3, 49.3 | 0-100 VAS | 49.1, 56.6, 74.3, 99.4, 133.0, 159.3  (3.12) |
| Study 3 (BMRK4) | L, M, H  (Fixed) | 46.0, 47.0, 48.0 | 0-100 VAS (0, no sensation; 1.4, barely detectable; 6.1, weak; 17.2, moderate; 35.4, strong; 53.3, very strong; 100, strongest imaginable sensation) | UL: 31.7, 40.5, 53.6  (0.9787)  LL: 31.5, 40.2, 53.3  (0.96) |
| Study 4 (IE) | L, M, H  (Fixed) | 46.0, 47.0, 48.0 | 0-100 VAS (0, no pain; 100, worst imaginable pain) | 29.4, 38.9, 51.9  (0.64) |
| Study 5 (ILCP) | L, H  (Calibrated) | 44.7, 46.7  (0) | 0-8 VAS (no pain to worst pain imaginable) | 24.3, 46.7  (1.14) |
| Study 6 (EXP) | L, M, H  (Calibrated) | 41.2, 44.4, 47.2  (0.21) | 0-8 VAS (0, no sensation; 1,  non-painful warmth; 2, low  pain; 5, moderate pain; 8, maximum tolerable pain) | 2.5, 4.3, 7.4  (0.13) |
| Study 7 (SCEBL) | L, M, H  (Fixed) | 48, 49, 50 | 0-100 VAS (0, no pain; 100, worst imaginable pain) | 26.0, 33.3, 40.4  (1.12) |

*Note*: Heat /pain levels: N = Nonpainful, L = Low, M = Medium, H = High. Sites of stimulation: UL = Upper Limb, LL = Lower Limb. VAS = visual analogue scale.

Table 3. *Task Characteristics*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Duration  (seconds) | | Inter-heat interval (seconds) | Locations (number of sites) | Range of Number of Trials Per Subject | Mean proportion of trials excluded  (Std. Deviation) | Other experimental manipulations |
| NPS Training Data | | | | | | | |
| Study 1 (NSF) | 10 | 38 | | Arm (3) | 35-48 | 0.08 (0.07) | Masked emotional faces evenly crossed with temperature |
| NPS Testing Data | | | | | | | |
| Study 2 (BMRK3) | 12.5 | 20.5-28.5 | | Arm (2) | 97 | 0.1 (0.04) | Cognitive self-regulation up and down |
| Study 3 (BMRK4) | 11 | 25-27 | | Arm (4), Foot (4) | 81 | 0.08 (0.06) | Heat-predictive visual cues (low, medium, or high) |
| Study 4 (IE) | 11 | 36-38 | | Arm (6) | 48 | N/A | Heat-predictive visual cues; placebo manipulation |
| Study 5 (ILCP) | 10 | 17-25 | | Arm (2) | 64 | 0.05 (0.03) | Agency (make choice, observe choice), Certainty (80% low pain, 50% low pain) |
| Study 6 (EXP) | 10 | 38 | | Arm (4) | 61-64 | 0.03 (0.04) | Heat-predictive auditory cues |
| Study 7 (SCEBL) | 1.85 | 26-37 | | Leg (6) | 96 | 0.04 (0.03) | Heat-predictive visual cues (low or high) and unreinforced social information |

*Note*: The exclusion criterion was a high variance inflation factor.

Table 4. *Acquisition Parameters*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Study Location | | | Scanner  Details | EPI  Parameters | Voxel Size  (mm3) | Acquisition  Parameters | Discarded  Volumes | Stimulus  Software | Analysis Software |
|  | | **NPS Training Data** | | | | | | | | |
| Study 1 (NSF) | Columbia | | 1.5T GE Signa TwinSpeed  Excite HD | | TR = 2000 ms  TE = 34 ms  FOV = 224 mm  Matrix = 64×64 | 3.5×3.5×4.0 | 24 slices | 5 | E-Prime | SPM8 |
|  | | **NPS Testing Data** | | | | | | | | |
| Study 2 (BMRK3) | Columbia | | 3T Phillips Achieva TX | | TR = 2000 ms  TE = 20 ms  FOV = 224 mm  Matrix = 64×64 | 3.0×3.0×3.0 | 42 Slices  Interleaved  SENSE = 1.5 | 4 | E-Prime | SPM8 |
| Study 3 (BMRK4) | CU Boulder | | 3T Siemens  Tim Trio | | TR = 1300 ms  TE = 25 ms  FOV = 220 mm  Matrix = 64×64  Flip Angle = 50° | 3.4×3.4×3.4 | 26 Slices  Interleaved  iPAT = 2 | 6 | Matlab | SPM8 |
| Study 4 (IE) | CU Boulder | | 3T Siemens  Tim Trio | | TR = 1300 ms  TE = 25 ms  FOV = 220 mm  Matrix = 64×64  Flip Angle = 75° | 3.4×3.4×3 | 26 Slices  Interleaved  iPAT = 2 | 6 | E-Prime | SPM8 |
| Study 5 (ILCP) | CU Boulder | | 3T Siemens  Tim Trio | | TR = 1980 ms  TE = 25 ms  FOV = 220 mm  Matrix = 64×64  Flip Angle = 75° | 3.4×3.4×3 | 35 Slices  Interleaved  iPAT = 0 | 5 | Matlab | SPM8 |
| Study 6 (EXP) | Columbia | | 1.5T GE Signa TwinSpeed  Excite HD | | TR = 2000 ms  TE = 40 ms  FOV = 224 mm Matrix = 64×64  Flip Angle = 84° | 3.5×3.5×4.55 | 24 Slices | 5 | E-Prime | SPM5 |
| Study 7 (SCEBL) | CU Boulder | | 3T Siemens Tim Trio | | TR = 1300 ms  TE = 25 ms  FOV = 220 mm  Matrix = 64×64  Flip Angle = 50° | 3.4×3.4×3.4 | 26 Slices  Interleaved  iPAT = 2 | 3 | E-Prime | SPM8 |

*Note*. TR = Time to Repeat;TE = Time to Echo; FOV = Field of View