

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. (<i>Under Review</i>)
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. (<i>In Prep.</i>)
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 al. (<i>In Prep.</i>)

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, low pain; 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 (mm ³)	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	Columbia	1.5T GE	TR = 2000 ms	3.5×3.5×4.55	24 Slices	5	E-Prime	SPM5

(EXP)		Signa TwinSpeed Excite HD	TE = 40 ms FOV = 224 mm Matrix = 64×64 Flip Angle = 84°					
Study 7	CU	3T Siemens	TR = 1300 ms	3.4×3.4×3.4	26 Slices	3	E-Prime	SPM8
(SCEBL)	Boulder	Tim Trio	TE = 25 ms FOV = 220 mm Matrix = 64×64 Flip Angle = 50°		Interleaved iPAT = 2			

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