A Shift in Perspective:
Decentering During Mindful Attention to Imagined Stressful Events

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Materials

Critical events were 120 one-sentence scenarios (60 stressful, 60 non-stressful). These 120 scenarios were drawn from a larger sample of 572 stressful and non-stressful scenarios (286 each) normed in a separate behavioral study for stressfulness, self-threat, perseverative thought, expectation violation, efficacy, experience, familiarity, plausibility, valence, arousal, and certainty (Lebois, Hertzog, Slavich, Barrett, & Barsalou, submitted).

Stressful and non-stressful scenarios were different on key features shown to predict the amount of perceived stress (Lebois et al., submitted). Stressful scenarios were higher in threat ($M = 5.38$, $SD = .73$), arousal ($M = 5.67$, $SD = .50$), perseveration ($M = 6.04$, $SD = .51$), negative valence ($M = 5.82$, $SD = .53$), bodily imagery ($M = 5.24$, $SD = .47$), and violation of expectations ($M = 4.36$, $SD = 1.37$), and lower in efficacy ($M = 4.21$, $SD = .59$), and positive valence ($M = 1.05$, $SD = .08$) compared to non-stressful scenarios (threat: $M = 1.17$, $SD = .26$; arousal: $M = 2.99$, $SD = .53$; perseveration: $M = 1.10$, $SD = .16$; negative valence: $M = 1.40$, $SD = .27$; bodily imagery: $M = 1.96$, $SD = .47$; expectation violation: $M = 1.07$, $SD = .17$; efficacy: $M = 6.94$, $SD = .11$; positive valence: $M = 2.50$, $SD = .78$; p values all less than .001).

Training

In training session 1, we first introduced the concept of immersion, provided a definition, and presented examples. To reiterate, during immersion instruction, participants were asked to become completely absorbed in the experience of the scenarios almost as if they were actually happening in the moment. They were to mentally time travel and live the experience of sensory details, physical sensations, feelings, emotions, and bodily states associated with the scenario in vivid detail.

Second, we had participants generate an example of a previous time when they had been completely immersed in a thought. They again tried to become immersed in this thought, and described it briefly to the experimenter.

Third, participants read two example sentences similar to scenarios used later in the experiment (none of the events seen during practice occurred during the critical scan session). After participants read each sentence, the experimenter verbally guided them through the mental simulation of immersing themselves in the scenario (e.g., telling them to imagine particular sounds, visualize certain aspects of the scene, and how their body felt).

Fourth, participants completed two self-guided immersions with example sentences. Participants read each sentence, immersed themselves in the situation, and then verbally told the experimenter what they experienced,

for example, how their body felt, the sounds they heard, what the scene looked like, and feelings that came up.

Fifth, participants read another two example sentences, and immersed themselves without verbally reporting their experience to the experimenter.

After completing the previous 6 practice sentences, the participant read another 10 example sentences (5 stressful, 5 non-stressful). Participants were told the difference between complete and catch trials, and that the catch trials would occur randomly in the upcoming practice. This practice mimicked the timing of the scanner task described in the main text.

Next participants learned how to complete the left-right visual detection task that served as the active baseline, and completed 10 trials of just this task. Again this practice had the same timing as the scanner task. Finally, to complete this section of the training, participants practiced 10 trials of immersion interwoven with 10 trials of the left-right visual detection baseline task, including both complete and catch trials.

After immersion training, we introduced the concept of mindful attention, provided a definition, and presented examples. During mindful attention instruction, participants were asked to remain aware of their current physical location. They were told to notice that, in reaction to the scenarios, they were probably thinking about many of the kinds of details that they experienced when immersing themselves in an event, but rather than 'living' the event, they were instructed to simply observe their thoughts and reactions to it *in the present moment*. Participants viewed their thoughts about the stimuli as transitory mental states, not as actual parts of the scenarios, but something psychologically constructed in response to them.

After this initial introduction, we had participants think back to the example event they generated from their own experience for the immersion training. This time they practiced mindfully attending to the event. The rest of the mindful attention training procedure and practice was the same as the immersion training, except that participants did not practice the left-right detection task separately, but interwoven with the mindful attention task.

Following mindful attention instruction, participants practiced one run of the experimental scanner task as described in the main text. This concluded day 1 of training.

Training session 2 occurred 1-2 days later. It served as a refresher for the immersion and mindful attention strategies, and for the scanner task to come later. First we reintroduced the concepts of immersion and mindful attention, provided definitions, and presented examples, just like the ones used in training session 1. Second, participants read two example sentences. After they read each sentence, the experimenter verbally guided them through the mental simulation of immersing themselves in one of the scenarios and mindfully attending to the other.

Third, participants completed two self-guided examples, one for immersion and one for mindful attention. They read a sentence, immersed themselves in the scenario, and then verbally told the experimenter what they experienced. Then for the other sentence, they mindfully attend to the scenario and verbally told the experimenter what they noticed in their thoughts and reactions.

Fourth, participants read another two example sentences, and immersed themselves in one, and mindfully

attended to the other, without verbally reporting their experience to the experimenter.

After this refresher, participants practiced one block of 10 immersion trials, one block of 10 mindful attention trials, and one block of 10 left-right visual detection task trials, with the blocks of immersion and mindful attention trials including both complete and catch trials. Each type of trial was practiced separately in this section of the training to remind participants of the tasks, and their timing. All trials had the same timing as the scanner task. Participants were also reminded that the immersion and mindful attention trials would include a few catch trials. To conclude the pre-scan training, participants performed one complete run of the scanner task, using practice events not received later. Finally, participants entered the scanner for the critical experimental session.

Further Details about Scan Parameters, Preprocessing, and Analysis

Scan parameters. The functional sequence used a multi-band acceleration factor of 8 with interleaved geometry and no PAT mode. We used a nonselective IR in which TI equaled 900ms. We also used a partial Fourier of 7/8, a GRAPPA acceleration factor of 2, and 36 phase encode reference lines.

Preprocessing and analysis. AFNI was used to perform standard preprocessing (Cox, 1996). In addition, FSL was used to correct spatial intensity variations, and to perform spatial normalization and co-registration (Smith et al., 2004). First, the T1-weighted high-resolution anatomical 3D image was corrected for spatial intensity variations and skull-stripped. Next the T1w anatomical was transformed into MNI space using the MNI152

template brain in both a linear (FLIRT) and nonlinear (FNIRT) transformation.

The functional volumes were slice-time corrected, and then each volume was registered to a middle volume within its own run. Registering each run to its own middle volume minimized the amount of warping done to the functional data. It also minimized the extent of motion-related censoring during later regression analyses, because most motion occurred between runs. Each registered volume was then co-registered to the T1w anatomical, corrected for spatial intensity variations, and transformed to the MNI152 space using the warps computed in the spatial normalization of the T1w anatomical. All data were then resampled into 3x3x3 voxel space, and transformed to Talairach coordinates.

The functional data were then smoothed using an isotropic 6 mm FWHM Gaussian kernel. Next the BOLD signal was normalized and used to compute the percent signal change in each run (signal intensity in each voxel in a given volume was divided by the average signal intensity for that voxel in the run and multiplied by 100). This calculation was done only on voxels within the brain. Finally, voxels outside the brain, and noisy voxels (high variability, low intensity) were identified and removed from further analysis. All subsequent analyses used this final voxel set.

A vector comprised of onset times was constructed for the mindful attention stress, mindful attention non-stress, immersion stress, and immersion non-stress conditions in both the reading and strategy period. The vector for each of these eight conditions was convolved with a gamma-variate function of 6.9s in width. Each block was then rescaled to have an amplitude of 1 multiplied by

the estimated stimulus type beta-weight. For each voxel, the signal was modeled as the weighted sum of the aforementioned convolutions, the 3rd order polynomial drifts, and the constant baseline.

As discussed in the main manuscript methods section, our catch trial design made separate regression for the reading and strategy periods possible without the use of jitter. Time point stimulus vectors for cue (1), rest (6), strategy ability and baseline ratings (8), and motion (6) were also constructed and convolved (21 total), thereby removing them from the active baseline. Because these regressors were not of interest to our hypotheses, they are not discussed further. Not including these regressors in the model did not alter the pattern of results. Volumes associated with motion greater than 3mm or outlier signal intensity were censored from the regression analysis.

Further Results and Discussion

Shared activations in the conjunction analyses. As Step 1 of Figure 2 illustrates, two conjunction analyses first established the overlap in neural activity relative to the baseline, once in the two stressful conditions (voxels labeled S in Figure 2), and once in the two non-stressful conditions (voxels labeled N). In a third conjunction analysis, the shared activations for the stressful conditions and non-stressful conditions were assessed to establish neural activity shared across all four conditions (voxels labeled A). These conjunctions were performed for both the reading period (Figure 2, top panel), and the strategy period (Figure 2, bottom panel). SM Tables 1 and 2 provide detailed lists of shared clusters, illustrated in SM Figures 1 and 2. We also assessed activity in the shared activations above baseline using the seven resting state networks

established in Yeo et al. (2011). SM Figure 3 presents the extent to which shared activations fell within these seven networks.

Reading period. The four conditions in the reading period shared large clusters of neural activity, especially in the temporal poles, through middle temporal gyrus (MTG), fusiform gyrus, up into angular gyrus (AG), precuneus, lingual gyrus and primary visual cortex (visual network), and down into the cerebellum (see SM Table 1, SM Figure 1). The four conditions also shared extensive lateral prefrontal cortex activity (lPFC), and orbitofrontal cortex (OFC) activity (limbic network), in particular on the left. Large clusters were also shared medially, especially in the mPFC, mOFC, posterior cingulate cortex (default mode network), and medial temporal lobe structures (e.g., hippocampus, amygdala, parahippocampal gyrus). These shared activations across all four conditions are likely related to language processing (e.g., Broca's area), beginning to simulate the content of the events (e.g., temporal poles, PCC, hippocampus), and establishing event self-relevance (e.g., midline cortical structures, default mode network) with conscious effort (e.g., lPFC; Kross et al., 2009).

In the majority of cases, activations shared by just the two stressful reading conditions bordered closely on activity shared by all four conditions. Clusters in the right dmPFC, and brainstem, however, were unique to the stressful conditions, producing more activity in the limbic and default mode networks. These activations were perhaps indicative of greater self-referential processing and arousal for stressful events. Activations shared by just the two non-stressful conditions also bordered on activity shared by all four conditions in every case.

As SM Figure 3 illustrates, much less default mode network activity occurred during the reading period for the non-stressful conditions than for the stressful conditions. As discussed in the main text, participants may not have been able initially to engage much with the non-stressful events during the reading period, such that they showed less default mode activity than for the stressful points. As will be seen next, default mode activity increased substantially for the non-stressful events during the strategy period, suggesting that participants engaged more with them then.

Strategy period. The four conditions in the strategy period shared clusters similar to clusters common across the reading period (see SM Table 2, SM Figure 2). Again, large activations spanned the temporal poles, through MTG into AG and the precuneus, and also down into the cerebellum. Large activations were also shared in the frontoparietal control network (e.g., lPFC) and sensorimotor areas. Additionally, midline cortical structures often associated with the default mode network exhibited large overlaps across the four conditions, ranging from mPFC, dorsal anterior cingulate cortex (dACC) to PCC. This pattern of shared activity is likely associated with processing situation details, people, and context (e.g., parahippocampal gyrus, fusiform gyrus, temporal poles, pre and postcentral gyrus), establishing event self-relevance (default mode network midline cortical structures, insula), and actively engaging with the event (lPFC). The lPFC activation often occurs in tasks with an element of reappraisal (e.g., Kross et al., 2009), and the cerebellum is increasingly understood to be involved in emotion regulation (Schmahmann et al., 2007).

Most activations shared by just the two stressful conditions during the strategy period again bordered closely on activity shared by all four conditions. Additionally, stressful conditions shared activity in the default mode network (e.g., dmPFC), somatosensorimotor network (e.g., paracentral lobule), and cerebellum. These additional activations may reflect more salient self-related processing in the stressful events, and also more extensive sensorimotor simulation.

Activations shared by just the two non-stressful strategy period conditions also bordered almost exclusively on activity shared by all four conditions, with the exception of greater parahippocampal gyrus activity (PHG). Compared to the non-stressful reading period, the strategy period had much more activity across the default mode network, the frontoparietal control network, and the ventral and dorsal attention networks in SM Figure 3, $\chi^2(6)$ =1281, $p < .001$. As discussed in the main text, this activity may reflect attempts to establish situational details in these mundane scenarios that made applying immersion and mindful attention possible.

References

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SM Table 1. During the reading period, shared clusters across all four conditions (mindful attention stressful, immersion stressful, mindful attention non-stressful, immersion non-stressful), across just the two stressful conditions, and across just the two non-stressful conditions (from the three conjunction analyses summarized in Figure 2, Panels A and B).

Cluster	Brain Region	Brodmann Area	Spatial Extent

All Four Conditions (Reading Period)

Cluster	Brain Region	Brodmann Area	Spatial Extent
1	L MTG	21, 37, 39, 19	2150
	L Temporal Pole	38	
	L STG	22, 39	
	L STS		
	L AG	39	
	L SOG	19	
	L Precuneus	19	
	L IFG/dlPFC	9	
	L IFG/vlPFC	45, 10	
	L v Anterior Premotor Cortex	44	
	L lOFC	47	
2	L MFG/FEF	8	767
	L Premotor Cortex	6	
	L SFG	8, 9, 10	
	L vmPFC	10	
	L dmPFC	9	
	L SMA	6	
3	L Fusiform Gyrus	20, 36	528
	L PHG	36, 28	
	L Uncus		
	L Hippocampus		
	L Amygdala		
	L Culmen		
4	B Lingual Gyrus	19	517
	B dPCC	31	

	B RSC	23, 29, 30	
	B Precuneus	7	
5	B vmPFC	10	340
	B mOFC	11	
6	R MTG	21	339
	R STS		
	R Temporal Pole	38	
7	R Fusiform Gyrus	20	284
	R PHG	36, 28	
	R Uncus		
	R Hippocampus		
	R Amygdala		
	R Culmen		
8	R Pyramis		135
	R Uvula		
	R Inf Semi-Lunar Lobule		
9	R STG	22, 39	119
10	R MTG	21	100
	R STS		
11	R MOG	18	91
	R Lingual Gyrus	17	
	R IOG	17	
12	R IFG/vlPFC	45	89
	R lOFC	47	
13	L MOG	18	57
	L Lingual Gyrus	17	

Stressful Events (Reading Period)

1	R SFG	9, 10	427
	B vmPFC	10	
	B dmPFC	9	
	L SMA	6	

2	R MTG	21	241
	R Fusiform Gyrus	20	
	R Temporal Pole	38	
3	L STG	39	68
	L AG	39	
	L Precuneus	39	
4	L ITG	20	67
	L MTG	21	
	L Temporal Pole	38	
5	L MFG/FEF	8	62
6	L Temporal Pole	38	61
	L lOFC	47	
7	L PHG	35, 34, 28	52
	L Hippocampus		
	L Amygdala		
	L Brainstem (Pons)		
8	R Pyramis		40
	R Inf Semi-Lunar Lobule		
9	R IFG/vlPFC	45	38
	R lOFC	47	
10	R STG	22, 39	34
11	R PHG	35	32
	R Hippocampus		
	R Amygdala		
12	B Cerebellar Tonsil		31

Non-Stressful Events (Reading Period)

1	L ITG	37, 20	192
	L Fusiform Gyrus	20, 36	
	L PHG	36	
	L Culmen		
	L Uncus		
2	R Fusiform Gyrus	20	136
	R PHG	20	

	R Culmen		
	R Uncus		
3	B Lingual Gyrus	19	101
	B RSC	30	
4	L MFG/vlPFC	46	62
	L IFG	45	
	L MFG/dlPFC	9	
5	L Lingual Gyrus	17	53
	L MOG	18	
6	L MFG/FEF	8	44
	L dACC/MCC	32	
7	L MTG	19	41
	L SOG	19	
8	B sgACC	25	32
	R mOFC	11	

Note. Clusters were thresholded at a voxel-wise level of $p < .005$ and a corrected extent threshold of $p < .05$ (26 3x3x3mm voxels). L = left, R = right, B = bilateral, ACC = Anterior Cingulate Cortex, AG = Angular Gyrus, d = dorsal, FEF = Frontal Eye Fields, IFG = Inferior Frontal Gyrus, Inf = Inferior, IOG = Inferior Occipital Gyrus, ITG = Inferior Temporal Gyrus, l = lateral, m = medial, MCC = Middle Cingulate Cortex, MFG = Middle Frontal Gyrus, MOG = Middle Occipital Gyrus, MTG = Middle Temporal Gyrus, OFC = Orbital Frontal Cortex, PCC = Posterior Cingulate Cortex, PFC = Prefrontal Cortex, PHG = Parahippocampal Gyrus, RSC = Retrosplenial Cortex, SFG = Superior Frontal Gyrus, sg = subgenual , SMA = Supplementary Motor Area, SOG = Superior Occipital Gyrus, STG = Superior Temporal Gyrus, STS = Superior Temporal Sulcus, v = ventral.

SM Table 2. During the strategy period, shared clusters across all four conditions (mindful attention stressful, immersion stressful, mindful attention non-stressful, immersion non-stressful), across just the two stressful conditions, and across just the two non-stressful conditions (from the three conjunction analyses summarized in Figure 2, Panels C&D).

Cluster	Brain Region	Brodmann Area	Spatial Extent
All Four Conditions (Strategy Period)			
1	L MTG	21, 37	4010
	L Temporal Pole	38	
	L STS		
	L IFG/vlPFC	45, 46	
	L lOFC	47	
	L MFG	46	
	L MFG/dlPFC	9	
	L Premotor Cortex	6	
	L MFG/FEF	8	
	L Anterior Insula	13	
	L SFG	10, 9, 8	
	L mOFC	11	
	L vmPFC	10	
	L dmPFC	9	
	B SMA	6	
	B dACC	32	
2	L STG	22, 39	485
	L MTG	39, 19	
	L AG	39	
	L Precuneus	19	
3	R Pyramis		424
	R Cerebellar Tonsil		
	R Tuber		
	R Inf Semi-Lunar Lobule		

4	R MTG	21	387
	R STS		
	R Temporal Pole	38	
5	L PHG	19	332
	L Lingual Gyrus	19	
	L Precuneus	31, 7	
	L dPCC	31	
	L RSC	30, 29	
6	L Postcentral Gyrus	2, 3	186
	L Precentral Gyrus	4	
7	R IFG/vlPFC	45	161
	R lOFC	47	
8	L PHG	28	102
	L Hippocampus		
	L Culmen		
	L Cerebellar Tonsil		
9	R dmPFC	9	51

Stressful Events (Strategy Period)

1	B SFG/Premotor Cortex	6	548
	L SFG/vlPFC	10	
	L dACC	32	
	B vmPFC	10	
	B dmPFC	9	
	B SMA	6	
	L MCC	24	
	R Precentral Gyrus	4	
2	R Cerebellar Tonsil		188
	R Pyramis		
	R Inf Semi-Lunar Lobule		
	R Uvula		
3	R MTG	21	61
	R STS		

4	L MTG	21	57
	L ITG	20	
	L Fusiform Gyrus	20	
	L Temporal Pole	38	
5	R MTG	21	43
	R ITG	20	
6	L Inf Semi-Lunar Lobule		36
7	L Cerebellar Tonsil		35
8	L MFG/FEF	8	31
9	L MTG	21	26
	L STS		

Non-stressful Events (Strategy Period)

1	L MTG	21, 37, 39	636
	L ITG	20	
	L STS		
	L MOG	19	
	L STG	22	
	L AG	39	
	L SOG	19	
	L Precuneus	19	
	L SPL	7	
	L PHG	36, 35, 28, 34	
	L Fusiform Gyrus	20, 37	
	L Uncus		
	L Culmen		
2	L IFG/vlPFC	44, 45, 9, 46	471
	L MFG/dlPFC	9	
	L MFG/vlPFC	10	
	L lOFC	47	
	L Anterior Insula	13	
	L Temporal Pole	38	
	L Putamen		
	L Caudate		

3	R STG	22, 39	312
	R MTG	21	
	R MOG	37	
4	B dPCC	31	137
	L RSC	30	
	B Precuneus	7	
	R PCC	23	
5	B dACC	24	106
	L SMA	6	
	R dACC	32	
6	R MTG	21	96
	R ITG	20	
	R Fusiform	20	
	R PHG	35, 34	
7	L Frontopolar Cortex	10	96
	L vmPFC	10	
	B mOFC	11	
8	L Premotor Cortex	6	94
9	R IFG	45, 44	73
	R lOFC	47	
	R Anterior Insula	13	
10	L Postcentral Gyrus	2, 3	70
	L IPL	40	
	L Precentral Gyrus	4	
11	L Thalamus		37
12	L Frontopolar Cortex	10	30
13	L MCC/dPCC	31	30
	B Paracentral Lobule	5	

Note. Clusters were thresholded at a voxel-wise level of $p < .005$ and a corrected extent threshold of $p < .05$ (26 3x3x3mm voxels). L = left, R = right, B = bilateral, ACC = Anterior Cingulate Cortex, AG = Angular Gyrus, d = dorsal, FEF = Frontal Eye Fields, IFG = Inferior Frontal Gyrus, Inf = Inferior, IPL = Inferior Parietal Lobule, ITG = Inferior Temporal Gyrus, l = lateral, m = medial, MCC = Middle Cingulate Cortex, MFG = Middle Frontal Gyrus, MOG = Middle Occipital Gyrus, MTG = Middle Temporal Gyrus, OFC = Orbitofrontal Cortex, PCC = Posterior Cingulate Cortex, PFC = Prefrontal Cortex, PHG = Parahippocampal Gyrus, RSC = Retrosplenial Cortex, SFG = Superior Frontal Gyrus, SMA = Supplemental Motor Area, SOG = Superior Occipital Gyrus, SPL = Superior Parietal Lobule, STG = Superior Temporal Gyrus, STS = Superior Temporal Sulcus, v = ventral.

SM Table 3. During the strategy period, clusters significantly more active for mindful attention vs. immersion from two linear contrasts for stressful and non-stressful events.

Cluster	Brain Region	Brodmann Area	Spatial Extent	Peak t	Center x	y	z
Stressful Events: Mindful Attention > Immersion							
1	L IPL	40, 39	55	4.94	-48	-57	42
	L AG	39					
2	L IFG/vlPFC	10	18	3.74	-36	48	0
3	L MFG/dlPFC	9	17	4.43	-48	30	30
Stressful Events: Immersion > Mindful Attention							
1	L dPCC	31	20	-4.37	-12	-24	36
2	B sgACC	25	12	-3.95	0	24	-12
3	R IPL	40	12	-3.38	60	-24	30
4	R Premotor Cortex	6	10	-4.21	48	-6	33
Non-Stressful Events: Mindful Attention > Immersion							
1	L IOG	19	244	4.23	-6	-87	-15
	L MOG	18					
	L Lingual Gyrus	18, 17					
	L Declive						
	L Uvula						
2	L Premotor Cortex	6	110	4.48	-15	12	60
	L SMA	6					
3	L vlPFC	45, 44	93	4.99	-57	21	12
	L v Anterior Premotor Cortex	44					
4	L MTG	21	62	3.84	-54	-54	0
5	L vlPFC	10	58	4.07	-30	57	0
6	B Brainstem (Pons)		49	4.11	3	-36	-39
	R Cerebellar Tonsil						
7	R Pyramis		30	3.80	21	-72	-33
	R Uvula						

8	R IOG	18	28	3.72	42	-84	-6
9	R Lingual Gyrus	18	26	3.39	9	-75	0
10	R Cuneus	19	24	3.44	21	-90	24
11	L Temporal Pole	38	20	3.43	-54	15	-12
12	R IOG	17	20	3.35	21	-96	-15
13	L Brainstem		19	4.41	-6	-21	-21
14	R Cerebellar Tonsil		15	3.70	21	-42	-39
15	L MOG	19	11	3.54	-27	-90	21
16	R MFG/vlPFC	10	10	4.12	33	63	9

Non-Stressful Events: Immersion > Mindful Attention

| 1 | L vACC | 32 | 21 | -4.55 | -3 | 27 | -9 |

Note. Clusters were thresholded at a voxel-wise level of $p < .005$ and a corrected extent threshold of $p <.05$ (26 3x3x3mm voxels). L = left, R = right, B = bilateral, ACC = Anterior Cingulate Cortex, AG = Angular Gyrus, d= dorsal, IFG = Inferior Frontal Gyrus, IOG = Inferior Occipital Gyrus, IPL = Inferior Parietal Lobule, l = lateral, MFG = Middle Frontal Gyrus, MOG = Middle Occipital Gyrus, MTG = Middle Temporal Gyrus, PCC = Posterior Cingulate Cortex, PFC = Prefrontal Cortex, SMA = Supplemental Motor Area, sg = subgenual, v = ventral.
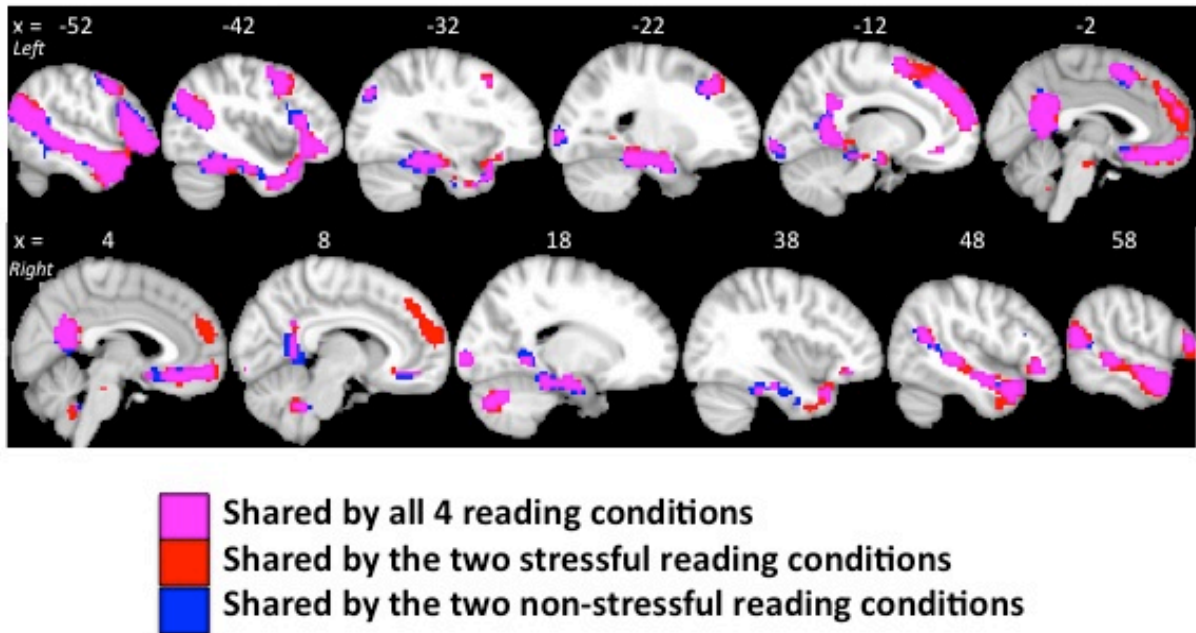
SM Figure 1. Examples of overlapping clusters across all four conditions during the reading period. Additionally, examples of overlapping clusters across the two stressful conditions during the reading period, and across the two non-stressful conditions during the reading period.
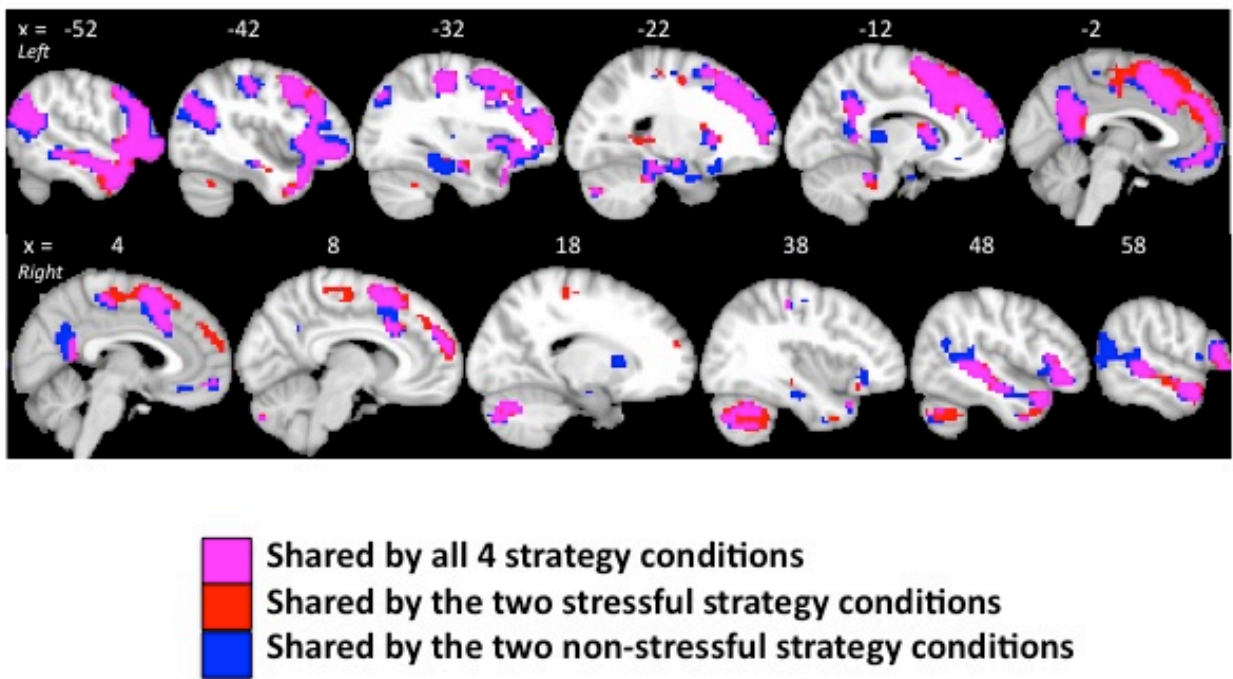
SM Figure 2. Examples of overlapping clusters across all four conditions during the strategy period. Additionally, examples of overlapping clusters across the two stressful conditions during the strategy period, and across the two non-stressful conditions during the strategy period.
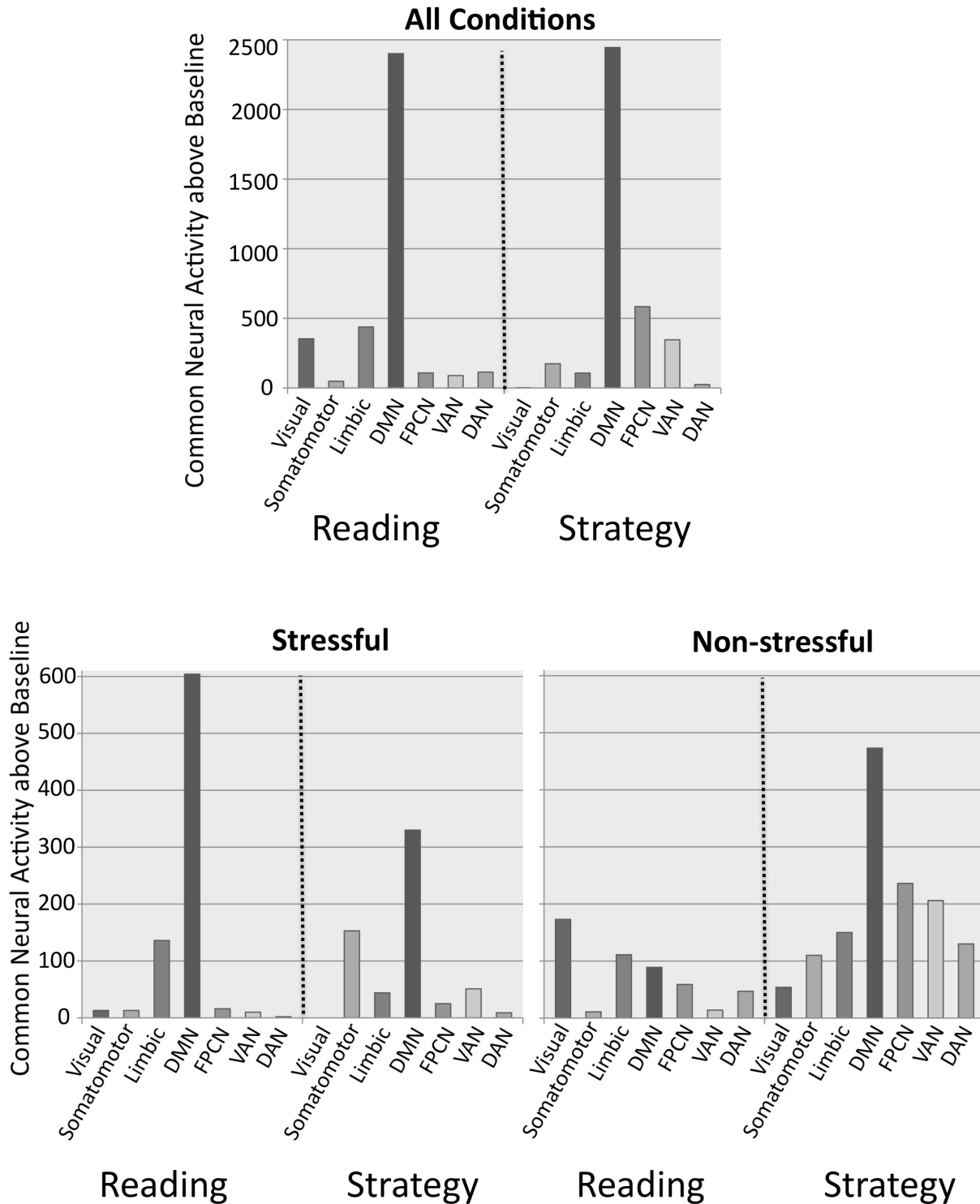
SM Figure 3. Total shared neural activity for each of the four strategy-event type conditions lying within the Yeo et al. (2011) network masks from conjunction analyses illustrated in Figure 2 (as measured in total voxels across significantly active clusters relative to the active baseline). Abbreviations for the Yeo et al. networks are: Visual = visual network, Somatomotor = somatosensorimotor network, limbic = limbic network, DMN = default mode network, FPCN = frontoparietal control network, VAN = ventral attention network, DAN = dorsal attention network.