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Additional Analyses

Relation Training Performance and Near-Transfer Task Performance

Change detection task. As not all individuals may benefit equally from training, we examined the relation between change in performance on the dual n-back training task and change in performance on the CDT. Within the WMT condition we calculated correlations between the change in mean dual n-back level across training, thus from the first training session to the last session, and the change in K-score on the change detection task. However, no significant relations were observed, all $ps > .05$.

Scrambled sentence task. Additionally, within the CBM-I condition we examined the relation between change on the CBM-I training catch trials (from the 1st to last training session) and change in performance on the SST (from pre- to post-training), to account for inter-individual differences in the benefit from training. This revealed a near significant correlation, $r = .44$, $p = .052$, indicating that a greater change in performance (i.e. positivity) on the catch trials in the CBM-I training task transferred to a greater increase in positive interpretation bias on the scrambled sentence task.

Individual Differences in Impact of Training on Self-Report Measures

To take into account inter-individual differences in training effectiveness on working memory capacity and interpretation bias, we explored whether changes in performance on the CDT distractor-item and four-item trials, and changes in positivity index on the SST correlated with the change in self-report measures of anxiety (STAI trait), worry (PSWQ), and attentional control (ACS). Changes in performance on the CDT, both on the distractor-item and four-item type, were not significantly correlated with changes in self-reported anxiety, worry, or attentional control, all $ps > .05$. Changes in positivity index on the SST did correlate with changes in anxiety, $r = -.37$, $p = .004$, changes in worry, $r = -.40$, $p = .002$, and with changes in attentional control, $r = .35$, $p = .006$. This shows that a greater increase in
positivity index on the SST was associated with greater decreases in self-reported anxiety and worry, and greater increases in self-reported attentional control.

**Breathing Focus Task**

**Mood breathing period.** Mixed ANOVAs were performed on the mood ratings during the breathing periods, with reactivity (pre-worry vs. post-worry) and time (pre-training vs. post-training) as within-subject factors and condition (control vs. WMT vs. CBM-I) as between-subjects factor. For ratings of anxiety, this analysis revealed a main effect of reactivity, \( F(1,57) = 40.72, p < .001, \eta_p^2 = .42 \), reflecting a general increase in anxiety from pre- to post-worry. Additionally, a main effect of time was observed, \( F(1,57) = 32.13, p < .001, \eta_p^2 = .36 \), and a Time x Condition interaction, \( F(2,57) = 3.85, p = .027, \eta_p^2 = .12 \).

Bonferroni corrected follow-up paired t-tests, separately per training condition, showed that the CBM-I condition reported a decrease in anxiety from pre-training (\( M = 56.88, SD = 18.89 \)) to post-training (\( M = 29.55, SD = 19.85 \)), \( t(19) = 6.08, p < .001, d = 1.41 \). However, the control condition reported no significant decrease in anxiety from pre-training (\( M = 45.75, SD = 21.46 \)) to post-training (\( M = 35.68, SD = 21.49 \)), \( t(19) = 2.12, p = .047, d = 0.47 \), and neither did the WMT condition report a decrease in anxiety from pre-training (\( M = 52.45, SD = 19.76 \)) to post-training (\( M = 41.38, SD = 20.49 \)), \( t(19) = 2.01, p = .059, d = 0.55 \).

For ratings of depressed feelings, the analysis\(^1\) revealed a main effect of reactivity, \( F(1,54) = 25.71, p < .001, \eta_p^2 = .32 \), reflecting a general increase in depressed feelings from pre- to post-worry. Additionally, a marginally significant main effect of time was observed, \( F(1,54) = 3.51, p = .066, \eta_p^2 = .06 \), and a Time x Reactivity interaction, \( F(1,54) = 3.02, p = .088, \eta_p^2 = .05 \).

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\(^1\)Results are reported after excluding 3 multivariate outliers, one subject from each training condition.
For ratings of happy feelings, the analysis\(^2\) revealed a main effect of reactivity, \(F(1,55) = 32.59, p < .001, \eta^2_p = .37\), a marginally significant Reactivity x Condition interaction, \(F(2,55) = 2.94, p = .061, \eta^2_p = .10\), a marginally significant Time x Condition interaction, \(F(2,55) = 3.02, p = .057, \eta^2_p = .10\), and marginally significant Time x Reactivity x Condition interaction, \(F(2,55) = 2.95, p = .061, \eta^2_p = .10\). However, Bonferroni corrected paired t-tests, separately for each training condition, showed that none of the training conditions reported a significant change in reactivity over time. The CBM-I condition reported no significant change in reactivity of happy feelings from pre-training (\(M = -11.50, SD = 12.80\)) to post-training (\(M = -5.65, SD = 9.84\)), \(t(19) = 1.94, p = .068, d = 0.51\), neither did the control condition show a change in reactivity from pre-training (\(M = -5.53, SD = 13.33\)) to post-training (\(M = -1.26, SD = 16.39\)), \(t(18) = 1.05, p = .307, d = 0.28\), nor did the WMT condition show a change in reactivity from pre-training (\(M = -8.00, SD = 13.46\)) to post-training (\(M = -15.00, SD = 15.86\)), \(t(18) = 1.40, p = .178, d = 0.48\).

**Mood worry period.** Mixed ANOVAs with time (pre-training vs. post-training) as within-subject factor and condition (control vs. WMT vs. CBM-I) as between-subjects factor were performed on self-reported mood ratings during the worry period. For anxiety ratings this analysis revealed only a significant main effect of time, \(F(1,57) = 6.64, p = .013, \eta^2_p = .10\), reflecting a general decrease. For self-reported depressed and happy feelings during the worry period, these analyses revealed neither a main effect of time, nor a Time x Condition interaction, all \(ps > .05\).

**Self-report ratings worry period.** Mixed ANOVAs with time (pre-training vs. post-training) as within-subject factor and condition (control vs. WMT vs. CBM-I) as between-subjects factor were performed on self-report ratings of time spent on worrying during the worry period, difficulty to worry during the worry period, and self-reported stress during the worry period. Results are reported after excluding 2 multivariate outliers (> 2.5SDs), one subject from the control training condition and one from the WMT training condition.
worry period. None of these analyses revealed a main effect of time or a Time x Condition interaction, all $ps > .05$. However, the analysis on self-report ratings of time spent on worrying during the worry period revealed a near significant main effect of condition, $F(2, 57) = 2.98, p = .059, \eta_{p}^2 = .10$. Bonferroni corrected independent t-tests revealed no significant differences between the control and WMT condition, $t(38) = 2.11, p = .041$, between the control and CBM-I condition, $t(38) = 1.95, p = .059$, nor between the WMT and CBM-I condition, $t(38) = 0.42, p = .674$. 