

### Appendix Section 3: Study 2 Additional correlation results

Step 1 of the analysis found numerous items with Pearson or polychoric correlations that were stronger than those of happy and sad. Here are the specific items:

#### *Pearson correlation results*

We tested the difference of these correlations using the t-test for dependent correlations (Steiger, 1980), and note the t-value along with the correlations; all but the last 3 of the 15 correlations were significantly stronger ( $p < .05$ ) than that of happy and sad: dull (-.36;  $t=6.95$ ), sluggish (-.33;  $t=5.26$ ), irritable (-.33;  $t=5.97$ ), grouchy (-.33;  $t=5.98$ ), depressed (-.32;  $t=7.61$ ), unhappy (-.31;  $t=6.76$ ), gloomy (-.31;  $t=5.85$ ), tired (-.30;  $t=3.63$ ), inactive (-.29;  $t=2.17$ ), sleepy (-.27;  $t=2.05$ ), blue (-.26;  $t=2.59$ ), upset (-.26;  $t=2.20$ ), drowsy (-.26;  $t=1.51$ ), bored (-.25;  $t=.98$ ), and hostile (-.24;  $t=.55$ ). N's for all except inactive ( $N=2,045$ ) ranged from 3,866 to 3,879. Sad correlates more negatively with one other items: content (-.26,  $t=2.38$ ) than it does with happy (-.23).

#### *Polychoric correlation results*

Again, we tested the difference of these correlations using the t-test for dependent correlations (Steiger, 1980), and note the t-value along with the correlation. All but the last 3 of the 13 correlations were significantly stronger ( $p < .05$ ) than that of happy and sad (which had a polychoric correlation of -.32,  $se=.020$ ): depressed (-.45,  $t=15.60$ ), unhappy (-.45,  $t=9.24$ ), grouchy (-.45,  $t=15.62$ ) dull (-.44,  $t=7.13$ ), gloomy (-.44,  $t=11.51$ ), irritable (-.42,  $t=7.08$ ), sluggish (-.38,  $t=3.48$ ), upset (-.38,  $t=5.71$ ), blue (-.37,  $t=6.11$ ), hostile (-.36,  $t=2.62$ ), inactive (-.35,  $t=1.16$ ), tired (-.34,  $t=1.49$ ), and angry (-.34,  $t=1.13$ ). Once again, content ( $r = -.35$ ,  $t=2.70$ ) correlated more negatively with sad than sad did with happy (-.32).

*Item correlations with happy and sad*

It is worth noting that of the 73 words, 33 correlated positively with happy and negatively with sad, 32 were negative with happy and positive with sad, 8 were positive with both, and none were negative with both. The eight words that had positive (polychoric) correlations with both happy and sad were astonished ( $r=.21, .27$ ), intense ( $.25, .21$ ), surprised ( $.32, .15$ ), determined ( $.52, .09$ ), anxious ( $.06, .35$ ), quiescent ( $.14, .13$ ), jittery ( $.09, .20$ ), and placid ( $.04, .04$ ). All of these correlations are reliably different from 0 (standard error =  $.016$ ).