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The Relationship Between Individual Differences in Rumination, Distractibility, and Depression

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According to the response styles theory, rumination and distraction are two different ways to respond to a negative stimulus. Previous studies on the relationship between rumination and distraction and their effect on depression have focused mainly on the active use of these response styles. In the present study, we examined how the natural tendency to be distractible was related to rumination or depression. Participants were asked to answer questionnaires to rumination, distractibility, and depression, and to perform an attention task. Self-reported level of rumination, depression, and distractibility all had a positive correlation with each other. However, task performance indexed by accuracy had a negative correlation with rumination. Contrary to our predictions, the results suggested that higher depression is related to more negative self-evaluation of distractibility. However, objective evidence of distractibility was related to less rumination, which was consistent with our predictions.

Keywords: distractibility, rumination, depression, selective attention.

Introduction

Many studies have been conducted in an attempt to explain the variability in an individual's vulnerability to depression. The results of these studies have generated a number of theories about potential vulnerability factors to depression. One such theory is the response styles theory (RST), a cognitive explanation developed by Nolen-Hoeksema (Nolen-Hoeksema, 1991, 1998), which attempts to explain the relationship between depression and specific types of coping methods in response to the experience of a negative stimulus or negative affect. According to RST, the different styles of coping with a negative stimulus are related to the severity of depression, as the different coping methods are thought to influence an individual's attention bias and his or her ability to problem-solve. RST argues that there are two main coping strategies in response to a negative affect: rumination and distraction. A ruminative response to negative affect refers to a coping strategy where the individual focuses on the negative affect (e.g. thinking about why he or she is so depressed) and its consequence (e.g. thinking that he or she will never get anything done because of the depressed mood) in order to gain more insight (Nolen-Hoeksema, 1991). In contrast, a distractive response to negative affect refers to a strategy where

the individual attempts to actively distract himself or herself away from the negative affect to replace it with a neutral or a positive affect (e.g. listening to music or playing games when the individual feels depressed). This use of the concept of distraction refers to active and deliberate attempts to engage in activities that distract one from focusing on negative affect. However, there is little research on how individual differences in the natural tendency to be distractible relates to either individual differences in coping strategies or depression. In this study, distractibility is defined as one's natural tendency, or trait, to be more distracted by stimuli, internal (e.g. daydreaming) or external (e.g. aural, visual, etc.) in everyday life. The goal of the current study is to examine the relationships among individual differences in cognitive and self-report measures of distractibility, rumination and depression.

In a large number of empirical studies, greater self-reported use of ruminative coping styles has been associated with higher self-reports of depression (Nolen-Hoeksema, 1998; Wilkinson, Croudace, & Goodyer, 2013). A meta-analysis conducted by Olatunji, Naragon-Gainey, and Wolitzky-Taylor (2013) confirmed that higher self-reports of rumination are correlated with higher self-reports of depression and that clinically depressed patients have significantly higher self-

reported use of rumination than non-patients. Furthermore, higher levels of self-reported ruminative responses have been found to correlate with higher self-reports of depression and anxiety in depressed adolescents and children (Donaldson, Lam, & Mathews, 2007). Similarly, higher trait rumination was found to correlate with more negative attention bias (e.g. focusing more on a negative stimulus such as discouraging words than to a neutral or a positive stimulus) for depressed patients (Donaldson et al., 2007). In contrast, higher levels of distractive responses have been found to correlate with lower self-reports of depression (Roelofs et al., 2009; Huffzinger & Kuehner, 2009).

The above studies are consistent with the idea that rumination and distraction may have a causal effect with respect to depression, but are primarily correlational and thus do not establish causation. However, other studies have actually tried to identify whether there is a causal relationship between rumination and depression. For example, in a study by Morrow and Nolen-Hoeksema (1990), participants were instructed to engage in either a distracting or ruminative coping method after a negative mood induction. Those who were instructed to engage in ruminative coping method reported being more depressed than they were before the induction, and those who were instructed to engage in a distracting coping method reported being less depressed than they were before the induction. Furthermore, in a longitudinal study by Huffzinger, Reinhard, and Kuehner (2009), it was found that higher self-reports of rumination predicted more depressive symptoms in nonpatients in short- and long-term (5 months and 3 years, respectively), and higher self-reports of depression predicted higher use of rumination in both former patients and nonpatients in short-term. Similarly, Koval, Kuppens, Allen, and Sheeber (2012) found that rumination was a significant predictor of current depression severity in adolescents. These results are complimented by the findings of Spasojević and Alloy (2001), which showed that, even after controlling for current depression, rumination acted as a mediator in predicting the number of prospective major depressive episode based on the risk factors (i.e. negative coping styles, self-criticism, neediness,

and history of past depressions). Thus, these studies provide further evidence consistent with a causal role for rumination in contributing to the development of more severe depression.

As described above, it is evident that rumination correlates with higher self-reports of depression, while distraction as an active coping method in response to negative affect correlates with lower self-reports of depression. In addition, a study by Watkins, Teasdale, and Williams (2000) showed that active distraction disrupts some mechanisms used for rumination, namely categorical memory recall, or the propensity to remember repeated events (e.g. making a mistake) in the past. In this study, the participants completed the Autobiographical Memory Test (AMT), which asked them to recall a personal memory tied to six positive words (e.g. happy), six negative words (e.g. failure), or six neutral words (e.g. bread) at three points in the experiment – before distraction/rumination induction, after distraction/rumination induction, and after decentering/control prompt task. In the distraction/rumination induction, the participants were asked to engage in either distraction or rumination by thinking about prompts (e.g. “Think about the shape of a large black umbrella” for distraction and “Think about what your feelings might mean” for rumination). The results indicated that those in the rumination induction had a higher proportion of categorical memory recalled than those under distraction induction, consistent with the hypothesis that distraction blocks memory mechanisms that may contribute to rumination.

From the studies described above, it is possible that active distraction is related to lower self-reported depression possibly because distraction directly competes with the ability to engage in ruminative thinking. If so, then it is possible that individual differences in distractibility may influence both ruminative style and depression. By distractibility we mean an individual’s natural tendency to be more distracted by internal or external stimuli in everyday life, which can be indexed either by performance on cognitive tasks (such as the Erikson flanker task, in which the participant is asked to identify the name of a cartoon character into one of the two given categories while being distracted by pictures that

show up next to the name) or by self report measures (questionnaires such as the Mindful Attention Awareness Scale, which contains questions like “I find it difficult to stay focused on what’s happening in the present.”). In this study, we choose to measure two different aspects of distractibility: mind wandering and mindfulness. Mind wandering has been hypothesized to represent vulnerability to being distracted (Forster & Lavie, 2014). On the other hand, mindfulness is thought to be the opposite of distractibility, as it is thought to entail the capacity for avoiding distraction (Brown & Ryan, 2003; Mrazek, Smallwood, & Schooler, 2012). If an individual is naturally more distractible, they may be less likely or able to ruminate, and thus may experience less negative affect. However, there has been no work that explores the relationship between individual differences in distractibility and depression from the perspective of understanding whether those individuals who are more distractible are less likely to ruminate and thus less likely to experience depression.

The goal of the current study was to test hypotheses about the relationship between distractibility, the use of ruminative responses to negative affect, and regular everyday depression. It is worth noting that, since the relationships shown in the studies referenced above have been established both in clinical depression and in normative samples that cover the depression spectrum, we can apply the same logic to look at regular everyday depression. We hypothesized that individuals who either self-reported higher levels of distractibility and/or showed more distractible performance on a cognitive task would be less likely to report using ruminative response styles when experiencing negative affect. Further, given the link between rumination and depression, we also hypothesized that individuals with higher levels of distractibility would show lower levels of depression, and if so, that this would be mediated by lower levels of rumination.

Methods

Participants

Sixty-three undergraduate volunteers ($M_{age} = 19.71$, $SD_{age} = 1.25$; 17 male, 46 female) from Washington University in St. Louis were recruited through a volunteer website maintained by the Psychology Department. All participants met the criteria of being at least 18 years old, not self-reporting a history of mental illness, and of not using psychotropic medication at the time of testing. For analyses involving the Beck Depression Inventory and the Mindful Attention Awareness Scale –Lapses Only, three participants’ data were excluded due to incomplete responses. Table 1 shows the demographic characteristics of the sample group. All participants were between the ages of 18 and 22 and were Washington University undergraduates with at least 12 years of education.

Measures

Rumination. The Rumination Responses Scale (RRS; Nolen-Hoeksema & Morrow, 1991) is a 22-item scale used to measure everyday ruminative responses to the negative mood. The scale ranges from 1 (almost never) to 4 (always), with total scores indicating the overall likelihood of the use of ruminative responses. It has been shown to be a reliable and valid measure of rumination, with the internal consistency (Cronbach’s alpha) of .89 (Nolen-Hoeksema & Morrow, 1991; Roelofs, Muris, Huibers, Peeters, & Arntz, 2006).

Depression and anxiety. Two questionnaires were used to measure the self-reported level of depression. The Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item scale widely used to measure self-reported levels of depression, with the internal consistency (Cronbach’s alpha) of .93. The Positive and Negative Affect Schedule (PANAS-X; Watson & Clark, 1994) is a scale that measures the degree of various feelings (e.g. anger, sadness, shyness, serenity, joviality, etc.) one experiences in everyday life. Its internal consistency (Cronbach’s alpha) ranges from .83 to .90 for Positive Affect and .85 to .90 for Negative Affect. The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) is a 21-item scale used to measure self-

reported levels of anxiety with internal consistency (Cronbach's alpha) ranging from .92 to .94. This scale was used to address potential confounding variables, as depression is known to positively correlate with anxiety. Thus, BAI was used to determine whether any obtained effects were mainly due to depression, not anxiety.

Distractibility. A number of measures were used to assess different aspects of distractibility. The Daydreaming Frequency Scale (DFS; Singer & Antrobus, 1970) is a 12-item subscale of the Imaginal Processes Inventory that measures the self-reported level of mind wandering in everyday life. The option ranges from A (never) to E (most of the time), with total scores signifying the overall likelihood to engage in daydreaming. It is shown to have a good internal consistency (with Cronbach's alpha of .91), good test-retest reliability, and good concurrent validity (Giambra, 1993; Tanaka & Huba, 1985). The Mindful Attention Awareness Scale – Lapses Only (MAAS-LO; Carriere, Cheyne, & Smilek, 2008) is a 12-item scale modified from MAAS (Brown & Ryan, 2003), a 14-item scale used to measure the level of everyday lapses of attention (e.g. "I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there."). MAAS-LO aims to only look at attention lapses, so it eliminates two items from MAAS related to the consequences of attention lapses and one item related to attention lapses while driving. The responses for each item range from 1 (almost always) to 6 (almost never). MAAS is shown to have good test-retest reliability and validity with Cronbach's alpha of .92 (Brown & Ryan, 2003). The Cognitive Failures Questionnaires (CFQ; Broadbent, Cooper, Fitzgerald, & Parkes, 1982) is a 25-item scale used to measure the level of everyday cognitive failures caused by attention lapses (e.g. "Do you find you forget why you went from one part of the house to the other?"). The responses for each item range from 0 (never) to 4 (very often), and the total scores correspond to the overall forgetfulness. It is shown reliable and valid with the Cronbach's alpha ranging from .85 to .89 (Broadbent et al., 1982; Tipper & Baylis, 1987).

Attention task. To measure distractibility during cognitive performance, we used a modified Erikson flanker task (Forster & Lavie, 2014). In

this task, the participants were presented a target, either the name of 6 Disney characters (Mickey, Donald, Pluto, Pooh, Piglet, Tigger) or 6 superheroes (Superman, Spiderman, Hulk, Wolverine, Batman, Robin) for 2000 ms following a central fixation point (500 ms) on a computer screen. The target was presented in one of the six positions from the central fixation point, ranging from 2.3 degrees below to 2.3 degrees above. The majority of the trials (90%) were presented with just the target. 10% of the trials had an equal chance of having a task-congruent distractor, task-incongruent distractor, or a task-irrelevant distractor. A task-congruent distractor is a picture from the same set as the target (e.g. Mickey if the target is Pooh). A task-incongruent distractor is a picture from the other set (e.g. Superman if the target is Pooh). A task-irrelevant distractor is a picture from neither the Disney nor the superhero set (a picture from a 6 cartoon character set: SpongeBob SquarePants, Hello Kitty, Cartman from the South Park cartoon, Bart Simpson, an Angry Bird, and Pikachu). These distractors were presented either to the left or right to the target. Participants were asked to push buttons to indicate whether the target was a superhero name or a Disney character name as fast and as accurately as possible. Participants completed 12 blocks of 60 trials, and the first three trials of each block were considered warm-up trials and were excluded from analysis. Participants were asked to verbally identify all of the cartoon characters involved in this task prior to the start of the task to make sure they were already familiar with all the characters. As a measure of distraction, we focused on the difference between the no-distractor condition and the task-incongruent condition by calculating the differences in reaction time and accuracy between the two conditions.

Procedure

First, participants completed an informed consent form to make sure they knew the general procedure and risk of participating in the study. Then, they completed the modified Eriksen flanker task according to the steps described above. After the task, they completed the battery of questionnaires about depression, rumination, and

distractibility listed above. In the end, they were debriefed with an explanation of the goal of the study.

Data Analysis

To analyze the relationships among rumination, depression, and distractibility, we computed Pearson Product-Moment correlation among all the questionnaires using SPSS 21. Furthermore, we computed Pearson Product-Moment correlation and performed mediation analyses for all questionnaires and the reaction time differences and the accuracy differences using SPSS 21 to examine the relationship between task performance and self-reported level of distractibility, rumination, and depression.

Results

Descriptive Statistics

Table 2 shows the descriptive statistics for the questionnaires used in this study.

Rumination and Depression

The Pearson Product-Moment correlation coefficients among RRS, BDI-II, Sadness subscale of PANAS-X, BAI, CFQ, DFS, and MAAS-LO are shown in Table 3. As expected, we were able to replicate the well-documented relationship between rumination and depression. RRS, which measures the self-reported level of rumination, had a moderate positive correlation with BDI-II. Similarly, RRS also had a moderate positive correlation with the Sadness subscale of PANAS-X.

Self-Reported Distractibility, Rumination and Depression

We hypothesized that self-reported distractibility and rumination would be negatively correlated. However, as shown in Table 3, both CFQ and DFS were moderately *positively* correlated with the RRS. Furthermore, MAAS-LO had a strong positive correlation with RRS. Similarly, we had also hypothesized that self-reported distractibility and depression would be negatively correlated. However, as shown in Table 3, BDI-II was moderately positively correlated with CFQ and MAAS-LO. Furthermore, the

Sadness subscale of PANAS-X had a moderate positive correlation with DFS.

Correlation between Task Performance and Rumination

Table 4 shows the descriptive statistics for the attention task, including the reaction time differences and the accuracy differences between the no-distractor condition and the incongruent distractor condition. The one-way repeated measures ANOVAs for accuracy and reaction time (RT) comparing the conditions (no distractor, congruent distractor, neutral distractor, and incongruent distractor), replicated the result of the previous study. There was a significant main effect of condition for reaction time, $F(3,63) = 136.29$, $p < .001$. Post-hoc contrasts indicated that the incongruent and neutral conditions did not differ significantly in RT, but both were significantly slower than the no-distraction condition ($p < .05$). Further, the no-distraction condition was faster than the congruent condition ($p < .05$). There was also a significant main effect for accuracy, $F(3,63) = 58.60$, $p < .001$. Post-hoc contrasts indicated that all conditions were significantly different ($ps < .001$). Performance was best in the congruent condition, followed by the no-distractor condition, followed by the neutral condition, with the worse performance in the incongruent condition.

We had hypothesized that rumination and distractibility (measured by the accuracy and reaction time difference between the task-irrelevant and no-distraction condition) would be negatively correlated, such that those individuals who were more distractible would show less rumination. As shown in Table 5, RRS was not correlated with the RT measure of distractibility, but was negatively correlated with the accuracy measure of distractibility. In other words, greater distractibility was associated with less rumination. However, the other self-report measures for depression and distractibility were not correlated with the accuracy or the reaction time of the attention task.

Mediation Analysis

We had originally hypothesized that greater distractibility would be associated with

lower rumination and that this in turn would be associated with less depression. This hypothesis suggests that rumination should mediate any relationship between distractibility and depression. For our object measure of distractibility, indexed by attention task performance, we did see the predicted relationship to rumination, but we did not see any relationship between objective distractibility and depression. Thus, the conditions for testing a mediator model for objective distractibility were not met. Further, we did not find the predicted direction of relationships between self-reported distractibility and either rumination or depression. In contrast to our hypotheses, we found positive relationships between all of our self-report measures of distractibility and rumination, and positive relationship between CFQ and MAAS-LO measures and depression. One potential hypothesis, as discussed in more detail below, is that depression contributes to greater negative self-evaluations, and if so, then depression could be mediating the relationship between rumination and self-reported distractibility.

To test this hypothesis for CFQ and MAAS-LO measures (which were correlated with both depression and rumination), we used the PROCESS model developed by Preacher and Hayes (Hayes, 2013). For CFQ, the PROCESS analyses indicated that depression was a significant mediator of the relationship between rumination and CFQ ($\beta = .1259$, 95% CI: .0364, .2767), although this mediation was only partial, as the direct effect of rumination to CFQ was still significant ($\beta = .2813$, $t = 2.23$, $p = .0294$). However, depression did not mediate the relationship between rumination and either DFS ($\beta = .0198$, 95% CI: -.2097, .1231), or MAAS-LO ($\beta = .0363$, 95% CI: -.0048, .1280).

Discussion

In this study, we aimed to explore the relationship among individual differences in distractibility, rumination, and depression. Specifically, we hypothesized that distractibility indexed by self-report and the task performance on a cognitive task would be negatively correlated with rumination, and that given the positive correlation between rumination and depression found in various studies, distractibility would in turn be negatively correlated with depression. However, instead we found seemingly contradicting relationships. We were able to replicate the well-documented positive correlation between rumination and depression. Furthermore, distractibility measured by the accuracy on the selective attention task had a negative correlation with the self-reported level of rumination, which was consistent with our hypothesis. However, contrary to our predictions, we found that distractibility measured by self-report was associated with greater rumination and depression, which was not consistent with our hypotheses.

Opposite to our expectations, a higher self-reported level of distractibility was correlated with a higher self-reported level of rumination and depression. This result could be seen as contradictory to the studies discussed in the introduction that found a negative relationship between the use of distraction and depression. As described in the introduction, prior work suggests that distractive responses to negative stimuli could work against depression and rumination (Huffzinger & Kuehner, 2009; Morrow & Nolen-Hoeksema, 1990; Roelofs et al., 2009). However, our findings suggest that self-reported distractibility was positively associated with both rumination and depression.

Although finding that higher depression was associated with higher self-reported

distractibility is contradicting to our hypothesis, there is evidence suggesting that depression in fact may affect cognitive functions such as attention and therefore may be associated with worse distractibility. A meta-analysis by Snyder (2013) found that depressed patients had executive function impairments compared to healthy controls, with such impaired executive functions including attentional performance. Similarly, a meta-analysis by Rock, Roiser, Riedel, and Blackwell (2014) showed that clinically depressed patients had moderate cognitive deficits in executive function, memory, and attention compared to the control group, and that even after remission, the patients still had moderate cognitive deficits in executive function and attention. Further, Hasselbalch, Knorr, and Kessing (2011) showed that clinically depressed patients in remission showed a decrease in sustained and selective attention, memory, and executive function. Therefore, these meta-analyses suggest that more severe depression may in fact be related to higher distractibility or poorer attention. In the current study, we did not find that depression related to task performance, though it was significantly related to self-reported cognitive distractibility. As noted previously, however, this was a non-clinical sample and a higher level of depression severity may be needed before objective cognitive impairments are found.

In contrast, it is worth noting that, unlike self-reported distractibility, distractibility indexed by task performance had a modest relationship with rumination in the predicted direction, at least for accuracy. Since the accuracy difference was calculated by subtracting the accuracy in the no distractor condition by the accuracy in the incongruent distractor condition, a negative correlation reveals that, the lower the self-reported level of rumination, the greater the effect of the incongruent distractor condition. In other

words, those who are more distracted on the attention task had a lower self-reported level of rumination. This result is consistent with our hypothesis, though as noted above, we did not find that performance on the attention task was also related to lower depression.

As described above, we found strong positive relationships between depression and self-reports of distractibility, but no relationship between depression and distractibility measured by attention task performance. Further, we found no relationships between self-reported distractibility and distractibility measured by attention task performance. One hypothesis to explain this discrepancy between self-reports of distractibility and attention task performance is that it may be evidence of negative bias among depressed people, who may be more likely to negatively evaluate their personal attributes, including distractibility. Such a result was also found in a study by Zuroff, Colussy, and Wielgus (1983). More specifically, we found that individuals who reported higher depression also reported that they had worse attention and were more distractible. However, their objective task performance did not provide any evidence that they actually were more distractible. Thus, their higher self-reported distractibility may reflect a negative self-evaluation bias associated with depression. This hypothesis is consistent with the results of our mediation analysis of the self-report measures in this study, as we found that depression was a significant partial mediator of the relationship between rumination and distractibility indexed by CFQ.

It is worth noting the limitations of the study. The most significant limitation is the sample group composition. Only Washington University undergraduates who signed up via the Psychology Subject Pool were included in the study, and the sample had a high gender skew towards female (73% of the sample).

Thus, our results may not be representative of the general population and it is possible that different results might be found in a more diverse population or in a more severely depressed population. Furthermore, the majority of the relationships that were that were statistically significant were self-report measures, which may not be the most accurate depiction of the participant's behavior in real life due to various biases. For example, the answers may be distorted by the social desirability bias, which could drive an individual exaggerate their answers to fit with what is desirable in society (e.g. saying they are nicer than they actually are). Moreover, the participant's answer may be affected by his or her mood at the time (e.g. scoring higher on a happiness scale because he or she just watched something funny). In order to overcome this limitation, in future work it would be informative to gather data from the perspective of the participant's friends or family members in order to obtain a more complete depiction of the participant.

In conclusion, this study showed that individual differences in self-reported distractibility, unlike active distraction as a coping method, were not associated with *reduced* rumination or depression. Instead we found that greater self-reported distractibility was associated with higher rumination and depression. This finding is more consistent with the literature suggesting that depression may be associated with impaired cognitive function. However, further research is needed to explore the potentially causal relationships between depression and distractibility, as the meta-analyses above demonstrate the relationship between depression and cognitive impairment, but do not establish the causal pathways. We did find that greater distractibility on an attention task was associated with lower rumination, but was not further associated with depression. This discrepancy between the attention task

performance and the self-reported level of distractibility needs to be further explored to test whether it is due to the negative bias in depressed people or it is due to some other factor.

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Appendix

Table 1
Demographic characteristics of the sample group

	Male (N=17, 27%)	Female (N=46, 73%)
Age (M, SD)	19.65, 0.93	19.74, 1.36
Ethnicity (N, %)		
Asian	4, 23.5%	15, 32.6%
Black or African American	1, 5.9%	3, 6.5%
White	11, 64.7%	26, 56.5%
More than one race	0, 0%	2, 4.3%
Other	1, 5.9%	0, 0%
Education in years (M, SD)	13.24, 1.25	13.93, 1.55

Table 2
Descriptive statistics for the questionnaire scores

	BAI	BDI-II	CFQ	DFS	MAAS-LO	Sadness subscale (PANAS-X)	RRS
<i>M</i>	10.857	9.267	39.619	27.238	35.967	10.635	44.794
<i>SD</i>	9.17	7.52	12.97	8.14	9.01	3.86	13.02

Note. BDI-II = Beck Depression Inventory-II; PANAS-X = Sadness subscale of Positive and Negative Affect Scale; BAI = Beck Anxiety Inventory; CFQ = Cognitive Failures Questionnaire; DFS = Daydreaming Frequency Scale; MAAS-LO = Mindful Attention Awareness Scale – Lapses Only.

Table 3
Pearson Product-Moment correlations among self-reported distractibility, rumination, depression and anxiety

	BDI-II	PANAS-X	BAI	CFQ	DFS	MAAS-LO
Ruminative Responses Scale	.36**	.45**	.24	.36**	.28*	.52**
Beck Depression Inventory		.50**	.50**	.44**	.20	.31*
Sadness subscale (PANAS-X)			.20	.23	.38**	.25
Beck Anxiety Inventory				.30*	.09	.27*
Cognitive Failures Questionnaire					.35**	.55**
Daydreaming Frequency Scale						.48**

** $p < .01$, 2-tailed.

* $p < .05$, 2-tailed.

Note. BDI-II = Beck Depression Inventory – II; PANAS-X = Sadness subscale of Positive and Negative Affect Scale; BAI = Beck Anxiety Inventory; CFQ = Cognitive Failures Questionnaire; DFS = Daydreaming Frequency Scale; MAAS-LO = Mindful Attention Awareness Scale – Lapses Only.

Table 4
Descriptive statistics for the task data

	Incongruent Distractor		Irrelevant Distractor		Congruent Distractor		No Distractor	
	RT (ms)	ACC	RT (ms)	ACC	RT (ms)	ACC	RT (ms)	ACC
<i>M</i>	715.992	0.831	706.787	0.897	621.122	0.939	611.626	0.922
<i>SD</i>	108.40	0.09	102.69	0.07	82.03	0.05	71.63	0.05

Note. RT = Reaction time (in ms); ACC = Accuracy.

Table 5
Pearson Product-Moment correlations among self-reported distractibility, rumination, depression, anxiety and attention task data

	(No distractor) – (Incongruent)	
	Reaction time	Accuracy
Ruminative Responses Scale	.07	-.25*
Beck Depression Inventory	.21	.01
Sadness Subscales (PANAS-X)	.06	-.08
Beck Anxiety Inventory	-.02	.02
Cognitive Failures Questionnaire	-.05	.04
Daydreaming Frequency Scale	-.02	-.02
Mindful Attention Awareness Scale – Lapses Only	-.03	-.18

* $p < .05$, 2-tailed.