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Self-compassion – having a healthy, mindful and kind self-attitude – may be a better way to cope with negative experiences than distraction. This was tested in 152 undergraduates who underwent a negative mood induction and then completed either a self-compassionate writing task or a distraction task. Results showed that participants who wrote self-compassionately experienced increases in positive affect while participants who distracted experienced reductions in positive affect. Both groups significantly reduced in negative affect; however, there was no significant difference between them. An interaction was found between rumination and time, demonstrating that high ruminators experienced greater reduction of sadness than low ruminators. The current findings demonstrate greater short-term benefits of approaching a negative mood using self-compassion compared to distraction and results are discussed in the context of the broaden and build theory of positive emotions.

Keywords: self-compassion; rumination; distraction; response styles theory; positive psychology; cognitive processes

According to the Response Styles Theory (Nolen-Hoeksema, 1987), there are two potential responses to depressed or negative mood. The first is to ruminate; a repetitive thinking style implicated in the onset, maintenance and severity of depression and associated with a range of maladaptive cognitive styles (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). The second is distraction; a technique involving attending to positive or neutral events in order to not notice negative states. Distraction is thought to be the superior response to negative mood and studies have shown distraction to be helpful in the short term. Other studies, however, suggest that long-term distraction may prolong distress. This study presents a third response to negative emotional experiences that may provide a more meaningful and functional way to cope with distress compared to distraction: self-compassion. Self-compassion involves approaching difficult thoughts and emotions with acceptance and kindness. The current study compares self-compassion and distraction in their effect on mood.

Rumination is a cognitive processing style characterised by repetitive, recurrent, intrusive and uncontrollable thoughts (Brinker & Dozois, 2009). Individuals tend to engage in rumination for the purpose of understanding their problems and to help prevent making the same mistakes in the future (Papageorgiou & Wells, 2001). Despite these beliefs and intentions, the reality is that rumination has a range of unhelpful and negative consequences and correlates, including being related to the maintenance and exacerbation of depressive symptoms and negative affect (e.g. Donaldson, Lam, & Mathews, 2007; Huffziger & Kuehner, 2009; Just & Alloy, 1997; Kuehner, Holzhauer, & Huffziger, 2007; Lavender & Watkins, 2004; Nolen-Hoeksema, Morrow, & Fredrickson, 1993; Nolen-Hoeksema, Parker, & Larson, 1994). Studies have also found that rumination inhibits effective problem-solving and reduces instrumental behaviour (Lyubomirsky & Tkach, 2004; Lyubomirsky, Tucker, Caldwell, & Berg, 1999).

In response to recognising these outcomes of ruminative thinking, Nolen-Hoeksema (1987, 1991) proposed that distracting from one's negative thoughts and emotions might help to alleviate distress. Distraction involves deliberately directing attention to pleasant or neutral activities rather than allowing the mind to notice negative emotions (Hilt, Armstrong, & Essex, 2012). There is some evidence for the benefits of distraction from laboratory and clinical studies where distraction ameliorated negative mood (e.g. Kuehner et al., 2007; Kuehner, Huffziger, & Liebsch, 2009; Morrow & Nolen-Hoeksema, 1990) and improved problem-solving (e.g. Donaldson et al., 2007) in dysphoric or depressed, or negative mood induced participants. All these studies have examined immediate changes in mood after an approximately 8-min distraction induction.

While short-term distraction might be effective in ameliorating dysphoric mood it may not prove as effective in the long term. Studies have found that long-term use of distraction (from 1 to 7 days follow-up to 10 years follow-up) does not maintain the initial benefits it has on reducing negative or depressive affect instead leading to a return of previous levels of low mood (Holahan, Moos, Holahan, Brennan, & Schutte, 2005; Kross & Ayduk, 2008). Furthermore, this research demonstrates that distraction does not change the way in which negative experiences are approached and reacted to in the future.

The measurement of distraction in some studies exploring its long-term use is also questionable (Huffziger, Reinhard, & Kuehner, 2009; Roelofs et al., 2009), where distraction is not defined but instead measured (with the RSQ) by number and frequency only (Nolen-Hoeksema et al., 2008). As a result, the type of distraction is confounded and tasks used may range from more therapeutic kinds akin to behavioural activation, to pure cognitive distraction (e.g. thought suppression) or engagement in unhealthy behaviours (e.g. alcohol consumption) (Knowles, Tai, Christensen, & Bentall, 2005). The mixed results in this literature are likely due to variability in type of distraction. That is, healthy behavioural distraction tasks are likely to have positive long-term effects on mood while destructive behaviours are unlikely to improve mood and psychological well-being.

Distraction might not only be ineffective in the long term but be detrimental to one's well-being. Distraction, or striving to keep unpleasant thoughts and feelings out of awareness is an avoidance strategy that may paradoxically increase negative cognitions (Wegner, 1994), increase related negative affect and fuel further rumination (Wenzlaff & Luxton, 2003). Experiential avoidance (Hayes, Strosahl, & Wilson, 1999) (distraction being one example of this), like withdrawal, has been linked to the maintenance rather than improvement of mood disorders (Moorey, 2010; Shahar & Herr, 2011). Research supports this in showing that the use of distraction when stressed increases the likelihood of developing depression (Holahan et al., 2005). Distraction therefore may be an ineffective method of coping with emotions in the long term as it disables any process that might aid effective emotional processing.

One emotion regulation strategy in the area of positive psychology that might be more effective than both distraction and rumination is self-compassion. Self-compassion is a healthy self-attitude involving 'being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, non-judgemental attitude toward one's inadequacies and failures, and recognising that one's own experience is part of the common human experience' (Neff, 2003a, p. 224). This definition of self-compassion comprises three

distinct elements: self-kindness, a sense of a common humanity and mindfulness. Research to date has used a range of methods to explore self-compassion including the Gestalt two-chair exercise (Neff, Kirkpatrick, & Rude, 2007), writing about a negative event in a self-compassionate way (e.g. Leary, Tate, Adams, Batts Allen, & Hancock, 2007); and running self-compassion therapy programmes with clinical samples (e.g. Laithwaite et al., 2009). Results show that self-compassion improves mood (including reducing negative affect and increasing positive affect) and reduces psychopathology in both the short and long terms (Gilbert & Procter, 2006; Laithwaite et al., 2009; Leary et al., 2007; Shapira & Mongrain, 2010). Self-compassion may also be a protective factor against depression as it predicts greater reductions or smaller increases in depressive symptoms over five months (Raes, 2011). Furthermore, high trait self-compassion is associated with a broad range of characteristics associated with psychological well-being including greater life satisfaction, wisdom and mastery goals (see Neff, 2009), suggesting that developing self-compassion as a character trait in the long term will improve psychological health. It seems logical to use self-compassion in the face of negative experiences, as it not only reduces distress, but also produces enhanced well-being.

Self-compassion is also theoretically likely to combat rumination, as the processes and content involved in each are mutually exclusive. Self-compassion involves mindful flexibility, non-judgmental awareness, kindness and a broad perspective of human suffering (Neff, 2003b). Rumination, on the other hand, involves becoming stuck in repetitive thinking patterns, self-criticism, exaggerating one's problems and feeling alone and isolated (Brinker & Dozois, 2009; Lyubomirsky & Nolen-Hoeksema, 1995; Nolen-Hoeksema & Davis, 1999).

Some research has begun to explore the relationship between self-compassion and rumination (Krieger, Altenstein, Baettig, Doerig, & Holtforth, 2013; Odou & Brinker, 2014; Raes, 2010). Neff et al. (2007) found that increases in self-compassion and decreases in rumination were significantly negatively correlated (−0.40). Evidence exists for the efficacy of intensive mindfulness training to reduce rumination in adults (Kingston, Dooley, Bates, Lawlor, & Malone, 2007; Ramel, Goldin, Carmona, & McQuaid, 2004; Shapiro, Brown, & Biegel, 2007) and the addition of self-kindness and a common humanity may augment this result, making self-compassion a beneficial alternative.

Self-compassion is also likely to be more effective than distraction in regulating emotions, providing a process for working through the difficult emotions and thoughts immediately after experiencing a negative event. If self-compassion were superior to distraction in regulating mood in the short term, it would provide support for emphasising the development of self-compassion rather

than distraction as a coping strategy in the face of distress, as it would be effective both in the short and long term, and a potential strategy to combat rumination. While previous studies have compared distraction and mindfulness (Broderick, 2005; Hilt et al., 2012; Huffziger & Kuehner, 2009; Kuehner et al., 2009; Singer & Dobson, 2007) direct comparisons of self-compassion and distraction in their efficacy for improving mood have not been assessed.

Previous research has compared self-compassionate writing with an emotionally expressive writing task following a negative mood induction and found that while both tasks improved mood, the self-compassionate writing task was slightly more effective (Odou & Brinker, 2014). Because there was no control group, it is not possible to conclude that either of these techniques was any more beneficial than the simple passage of time. Another interesting question is whether levels of trait rumination or trait self-compassion may influence changes in mood during open thinking time. Do individuals who tend to ruminate experience a different outcome to those who don't (e.g. does their mood continue to worsen, or remain the same)? Or does being naturally high in self-compassion lead to greater improvements in mood during free thinking time? These questions form a secondary purpose for the current study.

This study will compare self-compassion (an 8-min writing task) and distraction (a computer-based continuous performance task) on their influence on mood following a negative mood induction. The primary hypotheses are that (1) self-compassionate writing will be more effective than distraction in reducing negative mood, and increasing positive affect (2) trait self-compassion will predict improvement in mood following completion of either task and (3) trait rumination will predict a worsening of mood following task completion. No specific predictions are made about the undirected thinking time.

Method

Participants

Participants were 152 undergraduate students (107 female) from an Australian University who were recruited through the psychology department via posters and the university portal. Participants' ages ranged from 17 to 57 years ($M = 21.3$, SD = 5.24). Most participants were single and never married (81.6%), not employed (58%) full-time students (93%), had between 12 and 14 years of formal education (76%) and had English as their first language (79%). Of those people who had English as a second language, 81% had been speaking English for 5 years or more. Fourteen per cent of participants had a past diagnosis of depression while 2% reported having a current diagnosis.

Methods

Self-compassion scale

The self-compassion scale (SCS; Neff, 2003a) is a 26-item scale, with items measured on a five-point Likert scale from 1 (*Almost never*) to 5 (*Almost always*) and was used to measure self-compassion. The complete scale can be found on Kristen Neff's website (http://www.self-compassion.org/). For the overall scale, the internal consistency is 0.92 ($\alpha = 0.91$ in the current study) and the test–retest reliability (over a three-week interval) is 0.93 (Neff, 2003a). Mean scores are created for each subscale and a mean score is created overall (after reverse scoring negative items). Construct validity for this scale has been demonstrated (Neff, 2003a) through a significant negative correlation with the self-criticism subscale of the Depressive Experiences Questionnaire (Blatt, D'Afflitti, & Quinlan, 1976) and positive correlation with the social connectedness scale (Lee & Robbins, 1995).

Ruminative thinking scale

The ruminative thinking scale (RTS; Brinker & Dozois, 2009) consists of 20 items designed to measure a general tendency for ruminative thought (e.g. 'I find myself reliving events again and again'). Participants indicate on a seven-point Likert scale how well each item describes them from 1(*not at all*) to 5 (*very well*). The internal reliability for the RTS is 0.92 ($\alpha = 0.93$ for the current study) and construct validity has been demonstrated through positive correlations with other measures of rumination and negative correlations with verbal ability and social desirability (Brinker & Dozois, 2009). This scale was used to measure rumination instead of other existing scales because it does not confound depressed mood with ruminative thinking within items.

Positive and negative affect schedule

The positive and negative affect schedule (PANAS) measures participants on 20 feelings and emotions they experienced in the past week (used at baseline) or in the present moment (used before and after task completion) (Watson, Clark, & Tellegen, 1988). The PANAS is advantageous over the visual analogue scale (VAS) (see below) because it measures a breadth of moods beyond the simple dichotomy of happy or sad and it does not see positive and negative emotions as two ends of the same

continuum, allowing for a more accurate assessment of positive and negative emotions. Items are scored on a five-point Likert scale from 1 (*very slightly or not at all*) to 5 (*extremely*) (Watson et al., 1988). Scores for PA and NA range from 10 to 50, with higher scores indicating higher affect levels. Alpha coefficients of 0.86 (PA) and 0.87 (NA) indicate good internal consistency (Watson et al., 1988) (both scales $\alpha = 0.86$ for the current study).

Visual analogue scale

A 100-millimetre VAS, weighted with happy (1) and sad (100) was used to measure mood changes over short periods of time. This line has no graded scale and therefore reduces the likelihood that participants will base their responses on previous answers. Lower numbers indicate more happiness than sadness, while higher numbers indicate more sadness than happiness.

Demographic questions

Participant's age, gender, marital status, student status, employment status, years of education and their first language were obtained. Further, participants were asked to indicate whether or not they had a diagnosis of depression, either currently or in the past.

Negative mood induction

A negative mood induction was used to simulate the low mood of a clinically depressed sample. The induction took 3 min and involved listening to 'Russia under the Mongolian yoke' by Prokofiev at half speed while reading 24 negative Velten statements (Jennings, McGinnis, Lovejoy, & Stirling, 2000) presented in a 'movie' slide show. Examples of negative statements include 'when I talk no one really listens', 'there is no hope' and 'what's the point of trying' (Jennings et al., 2000). Each statement was on the screen for approximately 9 s.

Self-compassionate writing task

The self-compassionate writing task was adapted from Leary et al. (2007). Participants were initially asked to think of an unpleasant and negative event whether a past event or a current one, and write about the event in detail to make the event clear in the participants' mind. Participants were then directed to write about this event for 8 min in a self-compassionate way. To do this, participants were provided with the following three prompts, which correspond to the three components of the self-compassion definition, namely, mindfulness, having a sense of a common humanity and self-kindness. Prompts for writing included (1) describe your feelings and thoughts about the event in an objective and non-judgmental way, (2)

acknowledge and write about how other people also experience similar events, (3) and write about how you might express caring and kindness to yourself in relation to this event, in the same way you might express concern for a friend.

Continuous performance test

The continuous performance test (CPT) is a test of sustained, focused attention originally developed by Rosvold, Mirsky, Sarason, Bransome, and Beck (1956). This task was chosen due to its non-emotional and non-therapeutic nature while being difficult enough to engage the participant. It consists of letters of the alphabet being presented one at a time, in random order on a computer screen and participants are asked to respond when the letter X appears. Participants completed this task for an equivalent time taken by participants who completed the self-compassionate writing task. As this task was used to provide distraction, performance was not analysed.

Procedure

Participants attended a computer lab for approximately one hour and all tasks were completed individually at a computer. Participants completed baseline measures and then the negative mood induction. Following this, participants were asked to sit for five minutes to 'let your mind wander'. This undirected thinking time acted as a control for the two experimental conditions. Participants were then randomly allocated to complete a self-compassionate writing task or a distraction task. After completing the assigned task, participants were again given a 5-min period of undirected thinking time. Mood was measured (using the VAS) between each of these tasks to track any changes over time. The PANAS was used in particular to track changes in mood as a result of the experimental manipulation and was administered before and after the task. All participants completed a mood repair (3-min comedy audio clip) prior to leaving the computer lab. See Figure 1 for a flow chart of the procedure.

Results

Preliminary analyses

Data were analysed using SPSS Statistics 20. Missing values were less than 5% and missing completely at random as measured by Little's (1988) MCAR (0.37). Missing values were imputed using expectation maximisation. Sixteen univariate outliers were found for 9 out of 17 variables. As little difference existed between mean and 5% trimmed mean, all outliers were included in the main analyses without truncation. No multivariate outliers were found using the Mahalanobis statistic. Based on examination of the Kolmogorov-Smirnov statistic, all variables were normally
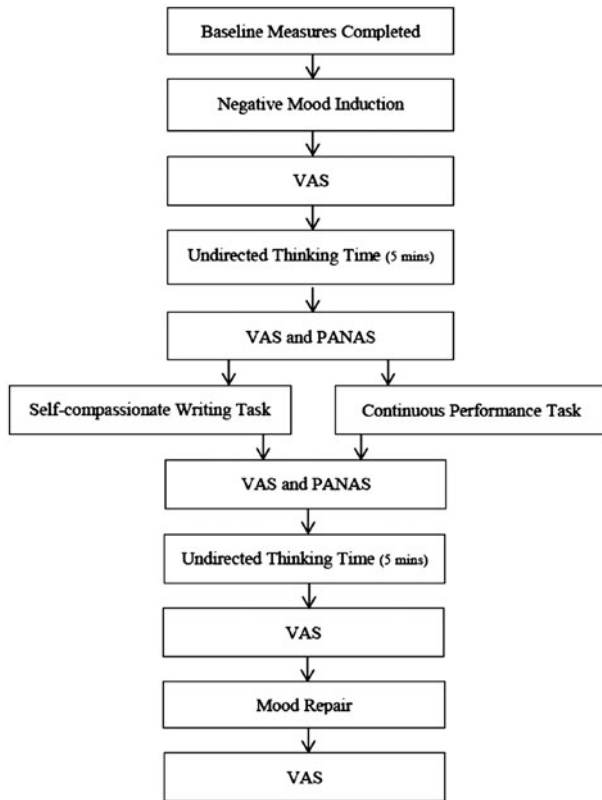
Figure 1.   Flow chart of procedure.

distributed or aligned with previous findings supporting a slight skew towards positive mental health for Australians in non-clinical populations (Cummins, Eckersley, Pallant, van Vugt, & Misajon, 2003).

T-tests conducted on baseline rumination (RTS, $t(150)=-0.62$, $p = 0.54$), self-compassion (SCS, $t(150) = 1.5$, $p = 0.14$) and mood (NA, $t(150)=-0.02$, $p = 0.98$; VAS, $t(150) = 0.33$, $p = 0.74$) indicated no significant differences between experimental groups prior to manipulations. Both the negative mood induction ($t(151) =-4.76$, $p < 0.01$) and mood repair ($t(151) = 11.67$, $p < 0.01$) significantly modified mood in the predicted directions as indicated by paired samples *t*-tests (see Figure 2). Table 1 shows means, standard deviations and correlations between all time-1 variables.

Analyses were conducted to examine the effect that undirected thinking had on mood, and secondarily, the relationship between change in mood over time with rumination and self-compassion. In other words, if participants are left to do as they please, what happens to their mood? And will people high on rumination experience a worsening of mood? Or do people high in self-compassion experience an improvement in mood? While we cannot accurately measure whether someone is ruminating or being self-compassionate in the moment, correlations with trait measures and changes in mood
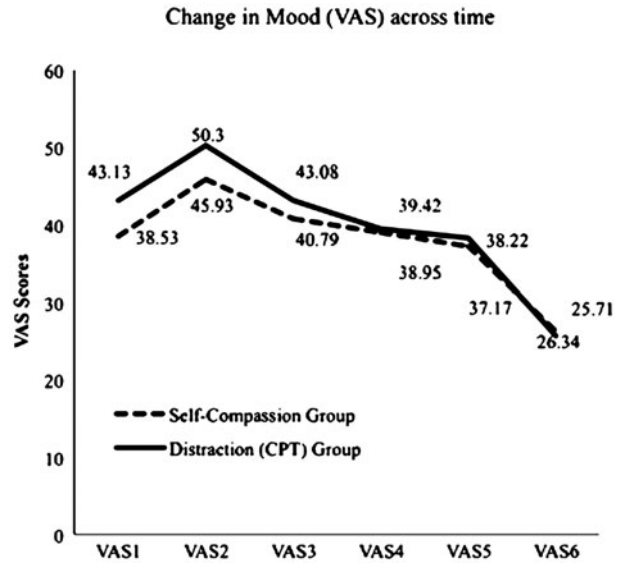

Figure 2.   Change in mood (VAS) across time.
Note: Mean VAS scores are presented for each group at each time point.

Table 1.   Means, standard deviations and correlations between the main variables at baseline.

	M (SD)	1	2	3	4
SCS	76.60 (15.98)	–			
RTS	87.88 (21.41)	−0.49**	–		
PA	30.22 (6.91)	0.23**	0.03	–	
NA	21.51 (7.24)	−0.40**	0.44**	−0.20*	–
VAS	34.29 (22.35)	−0.33**	0.22**	−0.57**	0.44**

Note: SCS = Self-compassion scale; RTS = Ruminative thought style scale; PA = Positive affect; NA = Negative affect; VAS = Visual analogue scale.
* = significant at .05; ** = significant at .01.

may provide an indirect way to explore possible relationships. Paired samples *t*-tests were used to assess change in mood. All participants' mood significantly worsened from a mean of 40.83–48.12 (VAS scores) during the mood induction, and significantly improved again (back to 41.93) after the first five minutes of undirected thinking time. No significant change in mood occurred during the second five minutes of undirected thinking time, which occurred after the experimental tasks. Correlations between change in mood and rumination or self-compassion were not significant (see Table 2).

Main analyses

The preliminary analyses demonstrated that participants' mood tended to return to baseline after undirected thinking time. As such the main analyses examine whether, beyond this improvement, distraction or self-compassion can

Table 2. Correlations between change in mood (VAS) and rumination and self-compassion.

	NMIch	UTT-1ch	UTT-2ch
RTS	0.064	−0.121	−0.076
SCS	−0.085	−0.016	0.07

Notes: RTS = Ruminative thinking scale; SCS = Self-compassion scale, NMIch = change in mood after compared to before the Negative Mood Induction; UUT-1ch = change in mood after compared to before the first undirected thinking time; UTT-2ch = change in mood after compared to before the second undirected thinking time.
* = significant at .05; ** = significant at .01.

improve mood even further. Linear mixed model analyses were conducted to test the effect of self-compassionate writing vs. distraction on mood as well as the influence of trait self-compassion and rumination on mood. This analysis was completed for all three measures of mood: PA, NA and VAS. Interactions between time and group, between rumination and time, and self-compassion and time were also analysed. The mean scores for each mood measure across groups are presented in Table 3. The results of the mixed model analyses are presented in Table 4.

Negative affect

Using negative affect as the dependent variable there were no significant interactions and no main effects for group, meaning there was no significant difference in negative affect between the two groups following the manipulation. There was a significant main effect for time, indicating that both groups experienced a significant change in negative affect after the task. Mean negative affect reduced from 16.96 (SD = 7.24) before the tasks to 16.1 (SD = 6.28) after the tasks. The mean score change in negative affect for each group can be seen in Table 3. There was no main effect for trait self-compassion, but there was a significant main effect for rumination,

suggesting that greater trait rumination is predictive of greater negative affect after either task.

Visual analogue scale

For the VAS analysis there was a significant main effect of trait self-compassion suggesting that the lower the self-compassion score, the sadder participants were after the task. There were no main effects for group or time and no significant interaction between group and time. There was, however, a significant interaction between rumination and time suggesting that people high in rumination were more likely to experience a lower VAS score (reduction in sadness/increase in happiness) after task completion compared to before task completion, whereas participants low in rumination did not experience much change in mood (Figure 3).

Positive affect

For positive affect there was a significant interaction between group and time suggesting that over time, positive affect increased for participants doing a self-compassionate writing task, but decreased for participants doing a distraction task (see Figure 4). There was also a significant main effect of trait self-compassion, which showed that higher self-compassion scores at baseline were related to greater positive affect after engaging in either task.

Discussion

The main hypothesis for this study, that self-compassion would significantly improve mood more than distraction, was partially supported. Results demonstrated that both self-compassion and distraction equally reduced negative

Table 3. Means and standard deviations for self-compassion and distraction groups on the three mood measures at baseline, before the task and after the task.

	Self-compassionate writing	Distraction (CPT)
Positive emotion		
PA1	30.33 (.78)	30.11 (.81)
PA2	23.12 (.89)	24.83 (1.01)
PA3	24.24 (.91)	21.99 (.98)
Negative emotion		
NA1	21.53 (.86)	21.5 (0.8)
NA2	17.25 (.85)	16.67 (.82)
NA3	16.83 (.73)	15.37 (0.7)
Happy/sad mood		
VAS1	33.68 (2.71)	34.89 (2.42)
VAS2	40.80 (2.99)	43.09 (2.87)
VAS3	38.95 (2.54)	39.42 (2.49)

Note: PA = positive affect; NA = negative affect; VAS = visual analogue scale.

Table 4. *F*-values and significance values for three mixed model analyses.

	PA		NA		VAS		
	F	Sig.	*F*	Sig.	*F*	Sig.	df
RTS	0.015	0.903	20.025	0.000	15.755	0.000	1, 148
SCS	15.77	0.000	1.613	0.206	23.006	0.000	1, 148
Group	0.469	0.495	0.475	0.492	1.409	0.237	1, 148
Time	2.583	0.110	5.012	0.027	2.893	0.091	1, 148
Time * Group	13.738	0.000	1.311	0.254	0.315	0.575	1, 148
Time * RTS	0.175	0.676	2.552	0.112	3.947	0.049	1, 148
Time * SCS	0.681	0.410	0.134	0.715	3.630	0.059	1, 148

Notes: PA = positive affect; NA = negative affect; VAS = visual analogue scale. RTS = ruminative thought style scale; SCS = Self-compassion scale.
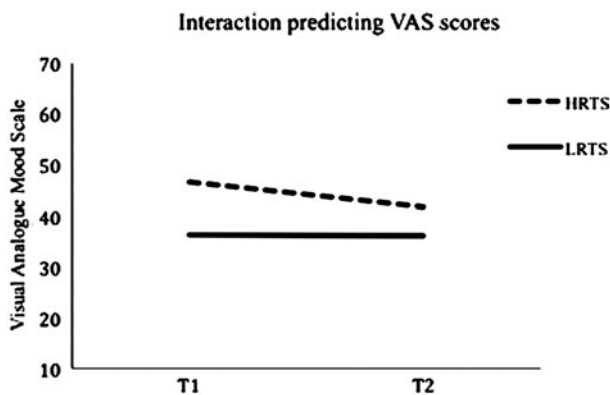

Figure 3. Interaction between mood and rumination before (Time 1) compared to after (Time 2) task completion.
Note: HRTS = Rumination scores above the mean; LRTS = Rumination scores below the mean.
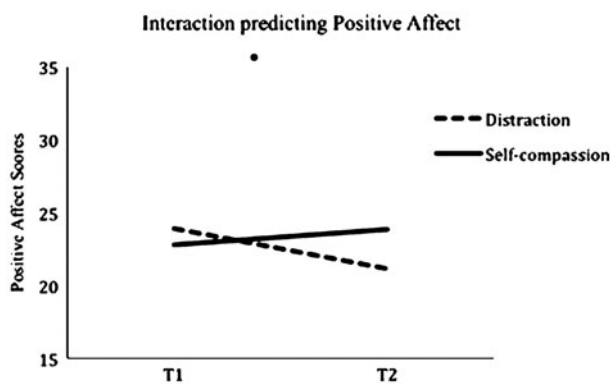

Figure 4. Interaction between time and group in predicting positive affect.
Note: T1 = before participants engaged in their assigned task. T2 = after participants engaged in assigned task.

mood, as is consistent with research, separately showing that both have an ability to reduce negative affect (e.g. Shapira & Mongrain, 2010 and Kuehner et al., 2009). It may be that the self-compassionate writing task reduced negative affect as a result of facilitating participants to

hold themselves and their personal negative event in non-judgmental and kind awareness and to see themselves as part of a large group, rather than an individual who is alone in their experience. In contrast, distraction may have reduced negative affect due to a process of cognitive avoidance.

Surprisingly, using a VAS to measure mood, no significant difference between the groups or across time was found. This may have been because the VAS was too specific in its measurement of only sadness and happiness, where the PANAS in contrast provides a broader range of emotions on which participants rate themselves. For example, participants may have experienced changes in levels of guilt or distress (NA), or in interest and pride (PA) as a result of the tasks, measured by the PANAS but not the VAS.

In support of the main hypothesis it was found that self-compassion increased positive affect while distraction reduced it. This result is consistent with previous research demonstrating self-compassion tasks can improve happiness or positive mood (Shapira & Mongrain, 2010). This result was not consistent however with research showing a distraction induction to improve positive affect (Broderick, 2005; Huffziger & Kuehner, 2009; Kuehner et al., 2007, 2009). In these studies participants were asked to distract themselves after a negative mood induction by concentrating their attention on externally focused thoughts (e.g. a lone cactus in the desert).

The current result suggests that despite focusing on an unpleasant and negative event in the self-compassionate writing task, by approaching it with self-compassion, participants were able to derive increased well-being. Furthermore, for the original ruminative response styles theory (Nolen-Hoeksema, 1987), this result suggests that using self-compassion in the face of a negative experience is more effective than distraction at improving positive affect.

Compared to distraction, self-compassion is better at increasing positive affect; interestingly, it is no different than distraction at reducing negative affect. This may be

because being self-compassionate acts on both negative and positive aspects of mood whereas distraction (in this case CPT) only operates effectively on negative affect. Negative affect and positive affect are not opposite ends of the spectrum but two highly distinct dimensions (Watson et al., 1988). As such, the process through which distraction works may only be effective in avoiding negative affect but not in generating positive affect (depending on the activity used for distraction). On the other hand, self-compassion may be effective through providing individuals with an effective way to accept and process negative emotions, which may in turn lead to positive emotion as they have more agency and hope for working through negative events in the future. Another reason self-compassion may increase positive affect is because it generates positive emotions through focusing on kindness and connectedness in the face of an emotionally painful experience.

The second hypothesis that trait rumination would predict mood after the experimental tasks was supported for negative affect and the VAS. Higher trait rumination predicted higher negative affect and greater sadness after task completion, despite which group participants were in. These results support existing research demonstrating ruminations' role in maintaining and exacerbating negative mood (e.g. Donaldson et al., 2007) and are consistent with previous similar research (Odou & Brinker, 2014). The tendency to ruminate, when combined with negative affect (in this case, the negative mood induction) is thought to lead to greater negative affect.

The current study also found that rumination interacted with mood over time demonstrating high ruminators benefited more from engaging in a mood-altering task than low ruminators. This suggests that while high ruminators experienced a worse mood in the beginning, they experienced greater improvement in mood than low ruminators. One possible reason for this result may be that high ruminators experienced a change in their cognitive processing, (i.e. reduced rumination), and subsequently experienced an improvement in mood as the ruminative cycle was prevented. As rumination was not measured over time in the current study, future research is needed to confirm this. An alternative explanation might be that high ruminators, due to existing higher levels of negative affect, had greater room for improvement in mood. Current findings suggest that people who have a tendency to ruminate can benefit from using either distraction or self-compassion; however, short-term (10 min) use of these strategies is not sufficient to improve mood to a level equivalent to participants who are not prone to ruminate. This suggests people high in rumination would benefit from more intensive strategies to improve mood and well-being.

The third prediction, that trait self-compassion would be related to mood after the tasks, was supported for

positive affect and the VAS. These results demonstrated that higher levels of self-compassion at baseline predicted more positive affect and happiness in either task. This result is again consistent with research mentioned earlier and adds to the body of research demonstrating that having trait self-compassion is closely linked to positive psychological health (e.g. Neff, 2003b; Odou & Brinker, 2014). Specifically, having higher levels of trait self-compassion enables one to process adverse events in a range of ways with greater efficacy and benefit. This is presumably because they approach negative events mindfully, while remaining kind to themselves and remembering they are experiencing something common to all humans. Helping individuals who are low in self-compassion, through practice of various self-compassion interventions, to improve their ability to be self-compassionate, is likely to also bring greater general well-being. This has been demonstrated by research on the mindful self-compassion programme (Neff & Germer, 2013) and research by Gilbert and colleagues (e.g. Gilbert & Procter, 2006). As such, understanding the relative efficacy of self-compassion tasks is an important direction for future research to build upon these preliminary findings.

Analyses on undirected thinking time demonstrated that during the first period of five minutes, participants experienced a significant improvement in their mood, returning to levels equivalent to prior to the negative mood induction. In this context, it appears that, when left to think without direction, participants' mood returns to their baseline level. This is consistent with positive psychology research, which has demonstrated a baseline or set point for our mood, which despite large changes to our circumstances (e.g. winning the lottery or becoming a paraplegic) our general level of subjective well-being after an initial rise or fall, returns to former levels and remains the same. The current results appear to be a demonstration of this phenomenon known as the hedonic treadmill (Diener, Lucas, & Scollon, 2006).

Overall, the current results demonstrate that both the distraction task and the self-compassionate writing task are effective in reducing negative affect. It was only the self-compassionate writing task, however, that demonstrated an improvement in positive affect. This is important because the presence of positive affect has benefits where the lack of negative affect does not. Research by Fredrickson (1998, 2001) on the *broaden and build theory* has demonstrated that the experience of positive emotions broadens the scope of attention, cognition and action (e.g. Fredrickson & Branigan, 2005) and builds a range of personal resources (e.g. physical, social, intellectual and psychological) (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). Research in positive psychology has also demonstrated that positive emotions are a cause of success and not simply a consequence (e.g. Lyubomirsky,

King, & Diener, 2005). Self-compassion, and its ability to produce positive emotions is one strategy through which individuals can access the benefits of the *broaden and build theory* as well as experience greater life success.

One limitation of this study is that clinical significance (i.e. practical value) was not measured. Statistical significance, found using inferential statistics, suggests certain patterns and changes in mood that occur as the result of the current interventions. However, whether or not participants perceive this change is not determined by statistics, but by participants' experience. Asking participants whether they experience changes in their mood or not provides a measure of clinical significance and consequently an indication of the real-world value of these interventions. While there are measurement challenges with self-report, gaining a measure of clinical significance is valuable when trying to improve individuals' well-being. On the other hand, a notable strength of this study was that it used an experimental design with randomisation to groups. The study, therefore, could test causal relationships between writing task, distraction task and mood while controlling for selection bias. This means that we can say with reasonable certainty that the reported results are not due to confounding variables, and be confident that mood changed as a result of the experimental tasks.

There is great scope for future research in this area and a number of ideas have been mentioned in the discussion above. Exploring the effect of various distraction tasks is one area for future research as well as comparing the benefits of distraction vs. specific therapeutic strategies (e.g. self-compassion-focused tasks). As mentioned already, the main measure of distraction (Nolen-Hoeksema, 1991) confounds types of distraction, such that healthy, unhealthy and neutral types of distraction are all treated simply as distraction. It is clear that not all distraction tasks are helpful, however, and are likely to have diverse short-term and long-term benefits. For example, drinking alcohol or binge eating as distraction is going to have different benefits and disadvantages to working longer hours or playing sport. Consequently, the impact on one's mood will differ thus necessitating research into a range of distraction tasks. Each distraction task, by definition does not allow for effective emotional processing to occur. As such, comparing a variety of distraction tasks with emotion regulation tasks (e.g. self-compassion), over a variety of time periods, will be useful to understand the benefits of emotional processing and when and how distraction might be detrimental. Another important area for future research is to investigate whether improvements in mood that result from using self-compassionate writing are lasting or ephemeral.

The implication of the finding that self-compassion acts to both increase positive emotions and reduce negative emotions is that it is useful to promote this response to negative life events that leave individuals feeling stressed, angry, sad or anxious. If individuals are taught, either during school, or through community programs, how to respond to themselves in a compassionate way they can benefit not only from reduced negative affect, but from more positive affect, which can in turn help them to build resources and broaden their attention, cognition and action. Essentially self-compassion can help individuals to thrive and flourish through all life experiences, not just those that are already positive and fulfilling. Several self-compassion programmes for community members currently exist including mindful self-compassion (Neff & Germer, 2013) and compassion cultivation training (Stanford School of Medicine, 2014). Specifically, for individuals experiencing mental health problems, compassion focused therapy is used (Gilbert, 2010).

In conclusion, the current results support the premise that self-compassion is a better alternative to rumination than distraction for improving mood. Both distraction and self-compassion tasks were found to reduce negative affect in the short term; however, self-compassion successfully reduced negative affect as well as improved positive affect. These results suggest greater benefits from using self-compassion in the wake of a negative emotional experience. Combining these results with existing research demonstrates long-term benefits of self-compassion, and long-term detriments of distraction, and it could be proposed that self-compassion, is a superior alternative to distraction in combating rumination. It provides an effective method for emotional processing that works across time and not only reduces distress but improves well-being, the latter of which unlocks the door to taking advantage of the broaden and build theory of positive emotions and generating greater life satisfaction and success.

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