Expressive writing, self-criticism and self-reassurance

Nicholas A. Troop, Joseph Chilcot, Lucy Hutchings and Giedre Varnaite

School of Psychology, University of Hertfordshire, UK

Correspondence to:

Dr Nicholas A. Troop, School of Psychology, University of Hertfordshire, College Lane, Hatfield, Herts AL10 9AB, UK; email n.a.troop@herts.ac.uk

Abstract

Objectives: Self-criticism and reassurance are important mechanisms for regulating negative emotions but relatively little attention has been paid to interventions aimed at improving them.

Design: This study explored the use of an expressive writing task to increase self-reassurance and reduce self-criticism using a randomised controlled design.

Method: 46 participants wrote either about life goals (the expressive writing task, $n = 23$) or a control topic (a review of a recent book or film, $n = 23$) for 15 minutes, 3 times within an hour. Measures of self-criticism/self-reassurance, stress and positive affect were completed at baseline and at two week follow-up. The Linguistic Inquiry and Word Count (LIWC) was used to analyse the writing of participants in the "life goals" condition to identify psychological processes that might differentiate those who improved and those who did not.

Results: While there were no significant changes in self-reported stress or positive affect, participants writing about life goals decreased in their levels of self-criticism at 2-week follow-up relative to participants writing about control topics. Text analysis showed that experimental participants using words that imply the possibility of doubt or failure, including use of the subjunctive tense (e.g. could, would, should), were least likely to decrease their self-criticism.

Conclusion: Expressive writing shows promise as a means by which people may decrease in their self-criticism. Future research should determine whether such experimentally induced changes in self-criticism lead to the improvements in psychological health that is implied by previous cross-sectional research.

Keywords: self-criticism; stress; affect; expressive writing; emotion regulation; LIWC

Practitioner points

- Considerable evidence shows that expressive writing improves many clinical, medical, emotional and behavioural outcomes

- This study shows that writing about life goals can reduce self-criticism

- The effect of writing about life goals on self-criticism is reduced in participants who write about their goals in a way that includes doubt and the possibility of failure

Introduction

Following, Depue and Morrone-Strupinsky's (2005) neuro-behavioural model of affiliation, Gilbert (2005, 2010) describes a tripartite model of affect regulation which includes a threat-focused component that triggers safety seeking behaviour, and two positive affect components. The first of these, the affiliation-focused system, is thought to lead people to feel safe and content and to tone down the threat system. The second, the incentive-focused system, includes the seeking of rewards, resources and achievements. The former is therefore associated with the attachment system triggering self-soothing and feelings of safeness while the latter is associated with the social rank system, triggering the need for achievement and status.

These systems are not only activated by externally occurring events such as caring or attack but also by internal events. Specifically, the threat system is activated by internally generated self-critical thoughts while the affiliation/soothing system can be activated by internally generated self-reassuring statements (Gilbert, 2010).

The reactions people make towards their emotional responses when they experience stress, difficulty or failure are important in psychological adjustment. For example, reacting with self-criticism predicts outcomes such as depression and anxiety (e.g. Dunkley, Sanislow, Grilo & McGlashan, 2009; Gilbert, Baldwin, Irons, Baccus, & Palmer, 2006; Gilbert, Clarke, Hempel, Miles, & Irons, 2004; Gilbert, McEwan, Irons, Bhundia, Christie, Broomhead & Rockliff, 2010). In contrast, greater self-reassurance is related to better psychological health. However, it is relevant here also to introduce the concept of self-compassion since, in addition to its overlap with self-criticism and self-reassurance, it is also the basis of one of the key intervention approaches discussed below. Neff (2003a) proposes there are three components to self-compassion: 1) kindness towards the self rather than critical self-judgement (similar to the

constructs of self-reassurance and self-criticism already discussed), 2) common humanity (where failure and pain are accepted as part of the human experience) and 3) mindful awareness (in which negative emotional states are faced rather than denied or exaggerated). Self-reassurance and self-compassion are consistently associated with better psychological health (Gilbert et al., 2004, 2006; Neely, Schallert, Mohammed, Roberts & Chen, 2009; Neff, 2003b, 2004; Neff, Rude & Kirkpatrick, 2007a; Neff & Vonk, 2009) and buffer the effects of anxiety or negative events (Leary, Tate, Adams, Allen & Hancock, 2007; Neff, Kirkpatrick & Rude, 2007b).

Self-criticism/reassurance and self-compassion can be improved using techniques such as meditative approaches (e.g. Hutcherson, Seppala, & Gross, 2008; Pace, Negi, Adame, Cole, Sivilli, Brown, Issa, & Raison, 2008) and mindfulness-based stress reduction (Kuyken, Watkins, Holden, White, Taylor, Byford, Evans, Radford, Teasdale, & Dalgleish, 2010; Shapiro, Astin, Bishop, & Cordova, 2005; Shapiro, Brown, & Biegel, 2007). However, importantly for the present study, those that directly incorporate compassion-focused therapeutic approaches clinically (e.g. Ashworth, Gracey, & Gilbert, 2011; Gilbert, 2010; Gilbert & Proctor, 2006; Laithwaite, Gumley, O'Hanlon, Collins, Doyle, Abraham, & Porter, 2009; Mayhew, & Gilbert, 2008), experimentally (Kelly, Zuroff, Foa, & Gilbert, 2010; Kelly, Zuroff, & Shapira, 2009) or self-directed (e.g. Gilbert, 2009; Neff, 2011) include an element of expressive writing. These generally take the form of writing a letter expressing compassion towards the self as if, for example, from an imaginary friend being loving, warm and compassionate.

The use of expressive (letter-)writing embedded within CFT approaches is significant as there is a large literature on expressive writing showing that it is effective in improving a range of medical, clinical, social and emotional outcomes (Frattaroli, 2006; Smyth, 1998). In contrast to CFT approaches, however, most of the work on expressive writing involves participants

writing about personally experienced stress and trauma (Frattaroli, 2006; Smyth, 1998) where they typically write for 20 minutes a day for 3-4 days (e.g. Pennebaker & Baell, 1986). In a study by Leary et al. (2007) participants wrote about a negative event and were given either a self-compassion manipulation, a self-esteem manipulation or no additional manipulation. Participants in the self-compassion induction were significantly more likely than the other groups to increase in their levels of self-compassion. While this study only measured the effect immediately post-experiment, Imrie and Troop (2012) showed that a self-compassion induction when writing about stress increased self-reassurance significantly over one week in patients at a hospice with life-limiting illness.

Pennebaker suggests that the effect of writing about personal trauma is due to the development of re-appraisal, understanding and the creation of a coherent narrative of the link between cognition and emotion (e.g. Pennebaker, 1993). However, others have suggested an emotion regulation account in which the effect on health of expressive writing is due to people developing mastery over emotions and that this can be achieved by any writing that arouses strong emotions. Examples include writing about an imagined trauma (Greenberg, Wortman & Stone, 1996), positive aspects of experienced trauma (King & Miner, 2000), intensely positive experiences (Burton & King, 2004) and life goals (King, 2001).

The primary aim of the present study is to explore the effect of writing about life goals as an emotion regulation process to determine its effect on self-criticism/reassurance, stress and positive affect. It might be anticipated that writing about life goals activates the achievement rather than the affiliative/soothing system. However, achievement of a good life implies to most people the development of satisfying relationships (Twenge & King, 2005). Indeed, in an unpublished pilot study (Winn & Troop, unpublished), participants asked to write about life

goals tended to write about security and satisfying relationships rather than achievement of status. It can be argued, therefore, that such an approach is more likely to arouse feelings of safety/contentment and self-reassurance.

The secondary aim of this study is to examine linguistic indicators (using the text analysis programme, the Linguistic Inquiry and Word Count [LIWC: Pennebaker, Francis & Booth, 2001]) to predict who benefits from writing about life goals and who does not. These linguistic indicators are thought to reflect the psychological processes that participants undergo during the act of writing (Pennebaker et al., 2001). Increasing use of cognitive mechanism words (e.g. causal words such as *because* or *cause* and insight words such as *think* or *consider*) predicts greater health improvements in a wide range of physical and psychological outcomes (e.g. Petrie, Booth & Pennebaker, 1999; Pennebaker, 1993; Rivkin, Gustafson, Weingarten & Chin, 2006; Ullrich & Lutgendorf, 2002). Tausczik and Pennebaker (2010) propose this pattern indicates the development of a narrative in which participants begin actively to process and reappraise events. Results from studies exploring the use of emotion words have been more mixed with health improvements being associated with greater use of positive emotion words in some studies (Danner, Snowdon, & Friesen, 2001) but negative emotion words in others (Pennebaker, 1993).

To date most studies have used the LIWC in relation to writing to about personal trauma. This part of the analysis is therefore entirely exploratory and no specific predictions are made comparing those who improve when writing about life goals with those who do not.

In summary, the present study explores (a) the use of an expressive writing technique that operates through affect regulatory processes to improve self-criticism, self-reassurance, stress and positive affect and (b) the type of psychological processes (reflected in word use) that influence changes in these.

Methods

Participants

Participants were 46 university students (15 men, 31 women) with a mean age of 25.8 (s.d. = 9.3). Participants were mostly single (n = 18) or had a boyfriend/girlfriend (n = 15) while 6 were married, 5 were cohabiting and 2 were divorced. Control (*n* = 23) and experimental participants (*n* = 23) did not differ significantly on any of the demographic variables.

Measures

Self-criticism/reassurance: The Forms of Self-Criticizing /Attacking & Self-Reassuring Scale (FSCRS: Gilbert et al., 2004) is a 22 item scale in which respondents answer to a probe statement ("when things go wrong for me...") a series of questions tapping two types of self-criticism (hated-self and inadequate-self) and self-reassurance. Answers are given on a 5-point Likert scale ranging from 0 = *not at all like me* to 4 = *extremely like me*. A number of studies have found that hated-self and inadequate-self subscales correlate highly (r-values between .68 and .80) and so, as in a number of other studies, these two subscales have been combined to form a single self-criticism subscale.

Stress: The revised Hassles and Uplifts Scale (HUS: DeLongis, Folkman & Lazarus, 1988) is a list of 53 daily situations or circumstances in which participants are asked to rate the degree to which these events have been a hassle or an uplift. Responses are given on a 4-point Likert scale ranging from 0 = *none or not applicable* to 3 = *a great deal* and participants were asked to make rating on the basis of the previous week.

Positive affect: The Types of Positive Affect Scale (TPAS: Gilbert, McEwan, Mitra, Franks, Richter, & Rockliff, 2008) is an 18-item scale in which respondents rate their feelings on a series of 5-point scale to indicate how characteristic those feeling are of them (ranging from 1 = *not characteristic of me* to 5 = *very characteristic of me*). The TPAS measures three types of positive affect: *activating positive affect* (e.g. energetic, excited, active); *relaxed positive affect* (e.g. relaxed, peaceful, calm) and *safeness/contentment positive affect* (e.g. safe, secure, warm).

Higher scores on all the measures used in this study indicate more of the construct. Internal reliabilities were high for all questionnaires (all Cronbach alphas > .73).

Word use: Text was analysed for the expressive writing group using the Linguistic Inquiry and Word Count (LIWC: Pennebaker et al., 2001). This computerized text analysis programme categorises text into standard language variables (e.g. articles, pronouns) and psychological processes (e.g. emotion words, cognitive processes) and represents the use of these words as a percentage of the whole text. In line with most previous research, the word categories analysed in this study were positive emotion words, negative emotion words, cognitive mechanism words and social processes.

Procedure

Participants were tested in small groups and randomly allocated to write either about life goals (expressive writing, *n* = 23) or a control topic (*n* = 23).

- Following King (2001), the expressive writing group was asked to think about their life in the future, imagine everything has gone as well as it possibly could and they achieved everything they wanted. Participants were asked to write about what they thought.

- The control group was asked to write a review of a film or book they had recently seen or read. They were asked to avoid any emotions, opinions or beliefs in their writing so that someone reading the review could make up their own mind about whether to read/see it.

Before writing, participants completed the FSCRS, HUS, TPAS and a demographic sheet in paper-and-pencil format. Following Chung and Pennebaker's (2008) modification of the standard writing paradigm, participants were then asked to write for 15 minutes on their allocated topic followed by a 5 minute break. This was repeated two more times so that participants wrote for 15 minutes three times within an hour (each time, participants were told they could write something from scratch or continue what they had written previously). Participants were informed in advance that they would be asked to hand in their writing and the experimenter collected these as participants left. The follow up was carried out two weeks later and the questionnaires were administered using an online data collection (Survey Monkey). Participants were given a full debrief written after the follow-up questionnaires were completed.

Data analysis

Repeated measures ANOVA with one between- and two within-subjects variables was carried out. The between-subjects variable was the condition to which participants were randomised (experimental versus control) and the within-subjects variables were time (baseline and follow-up) and subscale (for the FSCRS these were *self-criticism* and *self-reassurance*; for the HUS these were *hassles* and *uplifts*; for the TPAS these were *activating*, *relaxed* and *safe/content positive affect*). ANOVAs were run separately for the FSCRS, HUS and TPAS. For

significant interaction effects, follow-up t-tests were used to identify where these differences occurred.

Results

There were no significant differences between participants in the control and experimental group on any of the study variables at baseline (all $|t|$-values $< .15$, all p-values $> .13$) or gender ratio (26% of participants in the experimental group were men compared with 39% in the control group, $\chi^2[1] = .40$, $p = .53$). Table 1 shows the means on the FSCRS, HUS and TPAS at baseline and 2-week follow-up.

Table 1 about here

For the FSCRS, there were significant main effects of Time (Wilks' $\lambda = .70$, $F_{1,44} = 18.60$, $p < .001$, partial eta$^2 = .30$) and Subscale (Wilks' $\lambda = .85$, $F_{1,44} = 7.66$, $p < .01$, partial eta$^2 = .15$) and a significant interaction of Time X Subscale (Wilks' $\lambda = .90$, $F_{1,44} = 5.18$, $p < .05$, partial eta$^2 = .10$). However, of most interest was the significant 3-way interaction between Time X Subscale X Condition (Wilks' $\lambda = .81$, $F_{1,44} = 10.51$, $p < .005$, partial eta$^2 = .19$). Paired samples t-tests showed that those in the experimental condition decreased their *self-criticism* significantly ($t_{1,22} = 4.81$, $p < .001$) but *self-reassurance* did not change ($t_{1,22} = .82$, $p = .42$). Conversely, those in the control group did not change in their *self-criticism* ($t_{1,22} = .95$, $p = .35$) but *self-reassurance* decreased significantly ($t_{1,22} = 2.61$, $p < .05$). Finally, Time X Condition and Subscale X Condition interactions were not significant (Wilks' $\lambda = .94$, $F_{1,44} = 3.01$, $p = .09$, partial eta$^2 = .06$ and Wilks' $\lambda = .99$, $F_{1,44} = .60$, $p = .44$, partial eta$^2 = .01$ respectively).

For the HUS there was a significant main effect of Subscale (Wilks' $\lambda = .53$, $F_{1,44} = 39.13$, $p < .001$, partial eta$^2 = .47$) where all participants on average reported more uplifts than

hassles (see Table 1). No other main or interaction effects approached significance (Wilks' $\lambda >$ .94, $F_{1,44} < 2.59$, p > .12, partial eta^2 < .06).

For the TPAS there was a significant main effect of Subscale (Wilks' $\lambda = .72$, $F_{2,43} = 8.21$, p < .001, partial eta^2 = .28) where mean scores were highest for the *safeness/contentment* subscale and lowest for the *relaxed positive affect*. There was also a marginally significant interaction between Time X Subscale (Wilks' $\lambda = .87$, $F_{2,43} = 3.17$, p = .052, partial eta^2 = .13) whereby participants increased significantly in *relaxed positive affect* from baseline to follow-up (means were 3.07 and 3.26 respectively, $t_{1,45} = 3.03$, p < .005), *activated positive affect* decreased non-significantly (means were 3.44 and 3.39 respectively, $t_{1,45} = .72$, p = .47) and safe/*content positive affect* did not change at all (means were 3.57 and 3.57 respectively, $t_{1,45} = .00$, p = 1.00). However, no other main or interaction effects approached significance (Wilks' $\lambda > .91$, $F_{2,43} <$ 2.11, p > .13, partial eta^2 = .09), indicating that the expressive writing task had no differential effect on positive emotions over the control writing task.

Text analysis

Since the focus of this study concerned textual predictors of improvement (i.e. decreased) self-criticism and not predictors of worsening (i.e. reduced) self-reassurance, only the writing of the experimental group was analysed further.

For those in the experimental group, participants were divided on the basis of a median split in their reduction in self-criticism. Two participants did not return their writing samples and so were excluded. Ten participants reduced their self-criticism by less than 4 points (non-improvers) while eleven reduced their self-criticism by more than 6 points (improvers). Participants were also divided into high (≥ 17) versus low (≤ 16) levels of baseline self-criticism.

Two-way ANOVAs were then carried out with word type (using the LIWC to determine frequency of positive emotion, negative emotion, cognition and social words) as the dependent variables.

There were no significant main or interaction effects involving baseline self-criticism and only one significant main effect was found for level of improvement. Improvers wrote significantly fewer *cognitive mechanism* words than non-improvers (4.3% versus 7.0% for improvers and non-improvers respectively, $F_{1,20} = 5,18$, $p < .05$, partial $eta^2 = .23$). Given the previous research, this result is initially surprising so follow-up analyses further examined the six individual subtypes of word measured by the LIWC that go to make up the global *cognitive mechanism* category (see Figure 1). Only one significant difference emerged and this was for so-called *discrepancy* words where improvers' texts contained an average of 1.9% discrepancy words compared with 4.9% in non-improvers' texts ($t_{1,20} = 3.20$, $p < .005$, effect size Cohen's *d* = 1.5). No other differences in the use of *cognitive mechanism* words approached significance ($|t|$-values ranged between .35 and .59 with p-values ranging from .56 to .73).

<u>Figure 1 about here</u>

The category of *discrepancy* includes words such as *hope*, *wish*, *but* and *if*, words that imply a lack of conviction or belief in life goals. This is exemplified even more strongly by the inclusion in this category of verbs such as *could*, *would* and *should*. These verbs are subjunctive and, according to their dictionary definition, imply the possibility of failure and doubt, in this case doubt about the life goal or future possible self.

In order to elaborate on the findings of this study, we present examples of writing from people who either reduced or did not reduce their levels of self-criticism after writing about life goals. Below is a segment from someone whose self-criticism did not improve significantly

(decreasing by just 1 point). She wrote 419 words in total, of which 6.7% were discrepancy words (these are underlined):

I would like to be married but this is not important as long as I am with my partner: that is all that matters. I would like children but I will be waiting for the right time when both of us are ready. I am hoping to be healthy and living a healthy life, just like I am living now. I would like to go travelling to see some amazing places. I would also like to get a dog, husky, and possibly two cats. I would like to see my family often. So overall I really want to be happy, healthy and with the man I love so much.

Contrast this with a segment from another female student writing about similar themes but whose self-criticism did improve significantly (decreasing by 12 points). She wrote 442 words in total, of which just 0.2% were discrepancy words.

[My partner] proposed and we started planning a large family wedding for the following summer. At the age of 24 … I have stopped taking contraception in order to try for our first child … Both me and my husband have successful careers … I will do a part-time degree in law whilst teaching psychology. After finishing this second degree I moved to teach law in the college. The children are doing well in school … we are financially stable and enjoy many family holidays to a variety of places … we will move into a 5 bedroom house so the children have a room each and a guest room for their grandparents ... Our children will go on to have families of their own of which we are a regular part … Christmas will be spent at our family home whilst the grandchildren are young enough.

This participant uses a mix of past, present and future tense but no subjunctive, for example writing "will" where the previous participant writes "would". She is also quite specific in her details giving the names and numbers of children and pets and holiday destinations (not included in the segment above) as well as a timeline for when many of these events happen.

Discussion

The present study examined the effect of writing about life goals on self-criticism/reassurance, stress and positive affect. In addition, text analysis was carried out to explore the possible psychological processes responsible for any improvements observed.

Findings

Participants writing about life goals did not improve in their positive affect or self-reported stress but did improve significantly in their levels of self-criticism compared to a control group. Specifically, those who wrote about life goals decreased their self-criticism over a 2-week period while those in the control group decreased in their levels of self-reassurance.

In analysing the texts of participants in the experimental group, those whose self-criticism reduced wrote fewer "discrepancy" words than those whose self- criticism did not reduce. *Discrepancy* refers to those words reflecting doubt or the possibility of failure, in this case in relation to achieving life goals. Words included in this category include *but*, *if* and *hope* and also the use of the subjunctive tense, verbs such as *could*, *would* and *should*. The example texts given in the Results section are quite clearly different in the way participants express what are essentially similar life goals (partner, family, careers, finance, holidays, pets, home) but it is not clear precisely why one should relate to improvement in self-criticism and the other not. This may reflect differences in certainty and confidence in the achievement of life goals or perhaps merely the degree to which one participant is able to focus on specific aspects of desired goals (e.g. "At the age of 24, having been working nearly three years, I have stopped taking contraception in order to start trying for our first child") rather than vague or general ones (e.g. "I

would like children but I will be waiting for the right time when both of us are ready"). Future

research with larger samples should be better able to isolate these aspects, perhaps by asking

independent assessors to rate texts along dimensions such as these. Nevertheless, whatever the

mechanism by which the use of discrepancy words prevents reduction in self-criticism, the effect

size ($d = 1.5$) is substantial.

Strengths and limitations

Firstly participants were tested in groups rather than individually which may limit the

effectiveness of expressive writing (Frattaroli, 2006). To the extent this is a limitation, however,

it reduces the chances of finding a significant effect and yet this was still obtained in the present

analysis, at least in relation to self-criticism. Our experience in conducting similar (unpublished

pilot) research in the past shows that it is the control group that is hardest to retain throughout the

study and follow-up with participants telling us that writing about trivial topics is boring. One

strength in the present study, therefore, is that participants in the control group wrote a review of

a film or book they had recently watched or read, a task likely to retain their interest while still

(apparently) being psychologically inert. Whether as a consequence of this aspect of the design

or not, all participants were retained for the follow-up. However, it should be noted that the

follow-up period was relatively short and that all outcomes were based on self-report. Future

research should supplement the use of self-report measures with behavioural or physiological

outcomes.

Another limitation is the size and nature of the sample. Although many of the expressive

writing studies published to date have used student samples, the generalisability of these results

and, perhaps more importantly, their practical usefulness, requires replication across diverse

groups including clinical ones. Patients with clinical depression, for example, report finding it difficult to generate self-compassionate statements (Gilbert & Procter, 2006; Pauley & McPherson, 2010). Indeed, many appear resistant to trying to increase their self-compassion since for many it signifies weakness or indulgence (Gilbert & Procter, 2006).

Finally, following Chung and Pennebaker (2008), the present study asked participants to write for 15 minutes three times within an hour and followed them up after 2 weeks. The standard procedure is to ask participants to write for 20 minutes per day for three consecutive days and it is possible that using a more standard procedure will be more effective (see Frattaroli's, 2006, meta-analysis).

Implications

Notwithstanding the limitations described above, this study has a number of implications. The change in self-criticism in those writing about life goals was in contrast to non-significant changes in self-reported stress or affect. Another study on the use of stress-writing in hospice patients found similar results (albeit using a different writing task), that improvements in self-reassurance as a consequence of expressive writing were not matched by changes in stress or mood (Imrie & Troop, 2012). Lepore (1997) suggests that while expressive writing may not reduce stress *per se,* it may reduce its impact which may have significant implications for subsequent well-being. The present study suggests this may be through the improvement in self-criticism although longer-term follow-up will be important to determine this in future research.

One puzzling result is that self-reassurance decreased in participants completing a control task that was intended not to arouse significant emotional processing. Since the study was carried out in students in a semester that approached their end-of-year exams, it may be that it was this

threat that caused a change in levels of self-reassurance. This would imply that the expressive writing task, while not increasing self-reassurance, did protect against its reduction. Alternatively, there may have been something in the control task that caused a reduction in self-reassurance, for example the nature of the films or books that were reviewed. However, this seems unlikely given that participants could select, for themselves, films or books they had already seen and had enjoyed. It was not possible to evaluate this possibility further since details concerning the nature of the films were not obtained explicitly.

Pending replication, the clues to the process by which changes in self-criticism may be achieved would suggest that instructions to participants could be changed to make the technique more effective. Encouraging participants to write with confidence and certainty about achieving specific life goals may be more effective than allowing them to write about general goals whose achievement they may feel is uncertain. On the other hand, it may be that it is the certainty with which participants already believe these goals will be achieved that is important and that simply making these explicit by writing them down is the active process. In this case, modifying the instructions to participants will have no effect. Clearly this is an empirical question which only further research can answer.

Conclusion

Participants writing about life goals report a significant reduction in self-criticism relative to control participants. It appears that writing that signifies confidence in the success of these life goals differentiates those who benefit from writing about life goals and those who do not.

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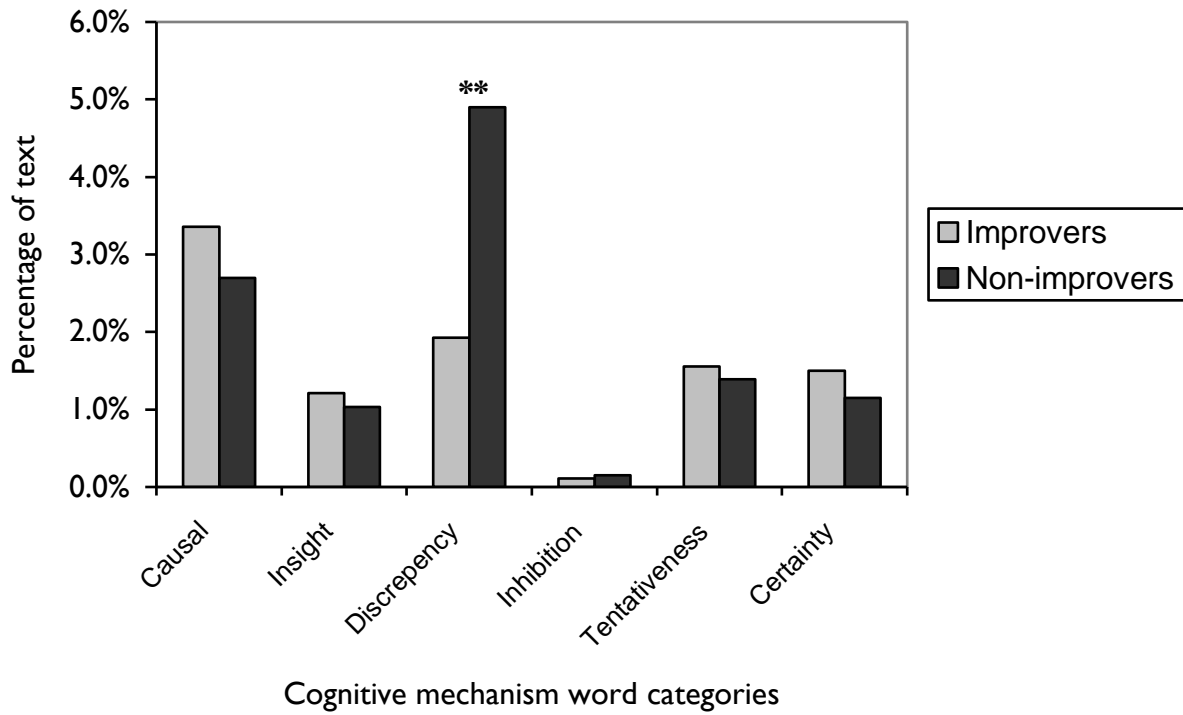Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). *Linguistic Inquiry and Word Count*

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Table 1. Means (s.d.) of self-compassion, stress and affect scores in experimental and control

groups at baseline and one week follow-up

	Condition			
	Experimental (life goals)		Control (review of film or book)	
Measure	Baseline	Follow-up	Baseline	Follow-up
FSCRS				
Self-criticism	19.87 (10.87)	14.96 (10.90)	15.22 (9.58)	14.39 (9.02)
Self-reassurance	21.74 (4.13)	21.04 (5.98)	22.7 (4.77)	21.09 (5.52)
HUS				
Hassles	.81 (.37)	.77 (.35)	.98 (.36)	.88 (.36)
Uplifts	1.27 (.45)	1.24 (.41)	1.34 (.40)	1.29 (.34)
TPAS				
Activated	3.42 (.71)	3.41 (.76)	3.45 (.69)	3.36 (.67)
Relaxed	3.22 (.89)	3.33 (.77)	2.91 (.71)	3.18 (.65)
Safe/content	3.55 (.67)	3.64 (.75)	3.58 (.68)	3.49 (.73)

FSCRS = Self-Criticizing /Attacking & Self-Reassuring Scale; HUS = Revised Hassles and

Uplifts Scale; TPAS = Types of Positive Affect Scale

Figure 1. Means for six types of cognitive mechanism words in people who improved or did not improve in self-criticism

** p < .01