Running head: THE MODERATING ROLE OF SELF-REASSURANCE

Self-reassuring, not self-esteem, serves as a buffer between self-criticism and depressive

symptoms

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Abstract

Objectives. Several studies suggest that self-criticism and self-reassuring operate through different mechanisms, and might interact with each other. This study examined the hypothesis that self-reassuring serves as a buffer between self-criticism and depressive symptoms in a way that self-esteem, that is rooted in a different motivational system, may not.

Design. We hypothesized that self-criticism would be correlated with high levels of depressive symptoms, but that this association would be weaker at higher levels of self-reassuring abilities. We also hypothesized that self-esteem, a self-relating process based on feeling able and competent to achieve life goals, would not buffer the relationship between self-criticism and depression.

Methods. Self-criticism, self-reassuring, depressive symptoms and self-esteem were assessed in a sample of 419 participants (66% females; $M_{age} = 33.40$, $SD = 11.13$).

Results. At higher levels of self-reassuring the relationship between self-criticism and depressive symptoms became non-significant, fully supporting the buffering hypothesis of self-reassuring. Despite the high correlation between self-esteem and self-reassuring, self-esteem did not moderate the relationship between self-criticism and depressive symptoms.

Conclusions. Results support the growing evidence that not all positive self-relating processes exert the same protective function against psychopathological consequences of self-criticism. Implications for psychotherapy and the validity of using compassion-focused interventions with clients with self-critical issues are discussed.

Keywords: self-reassuring; self-criticism; self-compassion; self-esteem; depression; Compassion Focused Therapy

Practitioner Points

- Self-reassuring and self-criticizing are different processes operating through different brain systems and have different impacts on psychopathology.

- Different types of positive self-relating do not show the same correlation with depressive symptoms.

- The ability to be self-reassuring protects against the psychopathological correlates of self-criticism more than having a high self-esteem.

- Compassion-focused interventions are promising avenues to help clients with self-critical issues.

Introduction

Over the last fifteen years, research in both counseling and experimental psychology has shown an increasing interest in self-relating processes and their impact on mental health. To have a reassuring, encouraging and compassionate attitude towards ourselves when things go wrong in life is related to increased resilience and better psychological health (Trompetter, Kleine, & Bohlmeijer, 2016). In particular, the ability to reassure the self, reminding oneself of one's positive competencies and qualities *in the face of setbacks and failures*, is negatively correlated with depression in both clinical and nonclinical populations (Castilho, Pinto-Gouveia, & Duarte, 2015; Gilbert, Clarke, Hempel, Miles, & Irons, 2004; Kupeli, Chilcot, Schmidt, Campbell, & Troop, 2013). What these factor analytic studies also suggest is that self-criticism and self-reassuring are distinct factors that should not be considered positive and negative variations of a single dimension, with one pole simply representing the opposite or the absence of the other. Further evidence supporting this differentiation is offered by Longe and colleagues (2010). In their fMRI investigation, they found that self-critical and self-reassuring responses to an imagined emotional scenario involving a personal setback activated completely different regions of the brain. In particular, self-reassuring stimulated areas of the brain, such as the left temporal pole and insula, that, in previous studies, has been found to be linked to expressing compassion and empathy towards others. In contrast, self-criticism was associated with regions such as left dorsal lateral prefrontal cortex and dorsal anterior cingulate linked to self-critical thinking, error processing, and behavioral inhibition. This is likely to be mirrored in the autonomic nervous system where self-criticism will stimulate sympathetic and stress arousal, whereas self-reassuring and self-compassion will stimulate a more parasympathetic response, a mammalian downregulating system evoking contentment and safeness (Kirby, Doty, Petrocchi, & Gilbert, 2017). There is some indirect evidence that this is the case (Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008).

There is in fact a long history of awareness that positive and negative mental factors should not be seen as opposite ends of a single dimension but as different processes with very different origins, functions, and triggers (Panskepp, 1998; Watson, Clarke & Tellegen,1988). Psychopathological factors (such as negative affect and self-criticism), and positive mental health factors (such as positive affect and self-acceptance) function along two different continua that are only moderately interrelated (Huppert & Whittington, 2003). Further support to the functional distinction between self-reassuring and self-criticism indirectly comes from factor-analytic and metanalytic studies of the Self-Compassion Scale (Neff, 2003), a widely used questionnaire to measure self-compassion. Studies suggest the presence of two distinct factors (self-compassion and self-coldness; Brenner, Heath, Vogel, & Credé (2017) that show distinct patterns of association with psychological outcomes (Muris & Petrocchi, 2016).

Given increasing evidence of their distinctiveness, it is possible to hypothesize that self-criticism and self-reassuring interact with each other, with one process moderating the correlation of the other with mental health outcomes. Some cross-cultural findings seem to support this hypothesis. Heine, Lehman, Markus, and Kitayama (1999) argue that self-criticism is not a psychological problem for individuals living in interdependent and collectivist cultures. In fact, although some people may display higher levels of self-criticism than other people, they may not necessarily display lower levels of self-compassion simultaneously. Kitayama and Karasawa (1997) found that in the East Asian culture of Japan, individuals tend to show positive feelings of themselves while they are still self-critical. Analogous results have been reported by studies with western samples (Brenner et al., 2017; López et al., 2015). Additionally, self-compassion has already found to moderate the negative impact on mental health of factors such as low implicit self-esteem and weak positive attention bias (Phillips, Hine, & Marks, 2017), high body comparison and appearance contingent self-worth (Homan & Tylka, 2015), perceived public stigma associated with seeking psychological help (Heath, Brenner, Lannin, & Vogel, 2016). However, the moderating role of compassionate self-reassuring in the relationship

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between self-criticism and negative psychological outcomes has never been tested yet. This assumption is particularly held by compassion-focused approaches, such as Compassion Focused Therapy, which are specifically designed to help clients with issues of self-criticism (Gilbert, 2014; Kirby & Gilbert 2017). In line with Gilbert's theory of social mentality and compassion (Gilbert, 2017), positive mental health factors (such as affiliative, compassion-oriented interactions with ourselves and others, and soothing positive affect) function as resilience resources, and protect against negative mental health factors (both externally — traumatic events and negative interactions with others — and internally generated — self-criticism). Thus, in the present study we tested the moderating role of self-reassuring and hypothesized that self-criticism would be correlated with depressive symptoms, but that this association would be weaker or even null at higher levels of self-reassuring abilities (Hypothesis 1).

Given the increasingly clear distinction between positive and negative self-relating processes, it is also the case that positive self-relating processes themselves can be distinguished in terms of functions, triggers and outcomes (Gilbert, 2009; Panskepp, 1998). For example, a distinction can be made between a compassionate, supportive, and validating self-relating in contrast to the self-evaluative and achievement oriented process of self-esteem (Gilbert & Irons, 2005; Neff & Vonk, 2009). For the most part, the ten items of the Rosenberg self-esteem scale, the widely used measure of self-esteem, measures both positive and negative feelings of the self, including a sense of being able to reach achievements versus a sense of failure. So, high scores on the scale are obtained if one thinks one is not a failure, has things to be proud of, and can do things as well as others. In contrast, self-compassion and self-reassuring are not related to evaluations of oneself as succeeding or failing but how to relate to oneself when life becomes difficult. In other words, self-esteem may fall when confronted with failures and setbacks whereas self-compassion and self-reassuring could increase (Neff & Vonk, 2009).

Self-compassion and self-esteem have shown to be significantly related ($r = .59$; Neff, 2003; $r = .56$, Leary, Tate, Adams, Batts Allen, & Hancock, 2007; $r = .68$, Neff & Vonk, 2009), and both correlate with positive psychological outcomes. However, only self-esteem shows a positive correlation with narcissistic tendencies, while self-compassion does not (Barnard & Curry, 2011). In fact, the positive self-affect originating by experiencing acceptance and compassion towards the self does not stem from self-aggrandizement or downward comparisons with others, in the way that high self-esteem appears to be (Neff, 2003). Self-esteem is linked to a particular kind of self-processing which focuses on achievement and competitive social comparison (Price, 2000). In fact, being overly focused on self-validation and on increasing our self-esteem can have long term negative effects on learning, relatedness, autonomy and self-regulation (Crocker & Park, 2004). In contrast, it has been argued that compassionate self-relating, focusing on feelings of kindness and understanding toward oneself and the desire to help one-self in the face of setbacks, is not based on the performance evaluations of self and others, or on congruence with ideal standards, and more easily triggers positive emotions toward oneself without having to protect or boost one's self-concept (Gilbert & Irons, 2005; Neff & Vonk, 2009). Given that compassionate self-reassuring has shown a "healthier" relationship (i.e., not related to narcissistic tendencies) with positive psychological outcomes than self-esteem, and that a self-compassion induction after recalling a failure generated lower negative affect compared to a self-esteem induction (Leary et al., 2007), we hypothesized that only compassionate self-reassuring would buffer the relationship between self-criticism and depressive symptoms, while self-esteem would not (Hypothesis 2).

Method

Participants and procedures

The study was conducted through an online survey (QuestionPro), and participants were recruited via several professional mailing lists (consisting of subjects who had previously provided consent to be contacted for participation in future studies) and web

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advertising ([location masked for blind review] website and several social networks). Four

hundred and nine-teen participants (251 women and 168 men), with a mean age of 33.40 (*SD*

= 11.13) completed the questionnaire. All participants were white. Most respondents had

finished junior (11.1%) or senior high school (27.1%), 19.6 % had a Bachelor's degree, 30.4

% a Master's degree and 11.8 % a Doctorate Degree or a second level Master's degree. As

regards the occupational level, 7.1% of the respondents was unemployed, 40% was composed

of students, 29.2% was employed, 14% was composed of self-employed professionals and

9.7% was retired. The survey was administered in a single session, and it took about 40

minutes to complete. After providing instructions and informed consent, all respondents

completed a series of forms, and then, they were debriefed and thanked for their time. This

study was approved by the Institutional Review Board of the University where the study was

conducted.

Measures

  Self-Esteem. Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES;

Rosenberg, 1965; Prezza, Trombaccia & Armento, 1997 for the Italian version) which exhibited

adequate levels of reliability and validity in both versions. The RSES is composed by 10 items

which measure the extent to which respondents attribute to themselves good qualities and

personal achievements. An example of item is: "I feel that I have a number of good qualities."

Higher scores indicate higher levels of self-esteem. Psychometric properties in the present study

are reported in Table 1.

  Self-criticizing and self-reassuring. The Forms of Self-criticizing/attacking and Self-

reassuring Scale (FSCRS; Gilbert et al., 2004) was used. This instrument is composed by 22

items evaluating how individuals "treat themselves" when things go wrong. It consists of three

subscales: inadequate-self (*self-criticizing*), that evaluates feelings of inadequacy and a sense of

irritation and frustration toward the self (e.g., "When things go wrong for me I am easily

disappointed with myself"); hated-self (*self-attacking*), that evaluates a more extreme form of self-criticism, characterized by feeling of self-repugnance and desire to hurt the self in response to failures and setbacks (e.g., "I have a sense of disgust with myself"); and reassured-self (*self-reassuring*), that evaluates the capacity to be self-soothing and consider the self with kindness and compassion in front of negative performances (e.g., "I am gentle and supportive with myself"). Adequate levels of internal consistency and construct validity were found for all the subscales in the original and in the Italian version (Petrocchi & Couyoumdjan, 2015). In the present study, only *self-criticizing* and *self-reassuring* subscales were employed, due to the floor effect that *self-attacking* subscale tends to show in non-clinical samples. Higher scores at these subscales indicate higher levels of self-criticism and self-reassuring, respectively. See Table 1 for psychometric properties of the subscales in the present study.

Depression. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977; for an Italian version see Fava, 1983) was administered. The CES-D is a 20-item self-report questionnaire developed for the general population which assesses the frequency of depressive symptoms in the previous week (e.g., "I did not feel like eating; my appetite was poor"). Adequate levels of internal consistency were found for also for the Italian version of the scale. Higher scores indicate higher levels of depressive symptoms. See Table 1 for its psychometric properties in the present study.

Data analysis

Preliminary analyses were conducted to assess internal consistencies, asymmetry, kurtosis and correlation among all variables. In order to test the moderating role of self-reassuring in the relationship between self-criticizing and mental health outcomes (i.e. depressive symptoms), hierarchical regression analyses with the interaction term were applied (see Figure 1). A second moderated regression was conducted to test if the significant moderating role of self-reassuring found in the previous analysis remained unchanged when

self-esteem and self-esteem x self-criticizing interaction were added as predictors. Similar analyses were used to test if also self-esteem showed a significant moderating role. These models were estimated with the Process macro that runs on SPSS package (Hayes, 2013).

INSERT FIGURE 1 ABOUT HERE

Results

Descriptive Statistics

Table 1 reports the descriptive statistics of the Inadequate-Self subscale (*self-criticizing*), the Reassured-Self subscale (*self-reassuring*), the Rosenberg Self-Esteem Scale, and the Center of Epidemiologic Study Depression Scale (CES-D). All scales exhibited adequate internal consistencies and approximately normal distributions, with asymmetry and kurtosis values ranging between ± 1.

INSERT TABLE 1 ABOUT HERE

As illustrated in Table 2, results showed significant correlations among all variables, that are of moderate/ high size in terms Cohen's standards.

INSERT TABLE 2 ABOUT HERE

Moderated regressions of self-criticizing on depressive symptoms, with self-reassuring and self-esteem as moderators

Two separate moderated regression analyses on depressive symptoms were conducted in order to test the moderating role of self-reassuring on the relationship between self-criticizing and depressive symptoms (first analysis), also controlling for the potential moderating effect of self-esteem (second analysis). The first regression analysis included self-criticizing, self-reassuring and their interaction (i.e. self-criticizing x self-reassuring) as predictors, and depressive symptoms as a criterion. Tolerance and VIF values did not indicate multi-collinearity among predictors. As illustrated in Table 3, in the first step significant main effects on depressive symptoms for both self-criticizing and self-reassuring were found. In the second step, a significant effect of interaction (self-criticizing x self-reassuring) emerged [R^2 change = .04,

$F(1, 415) = 20.71$, $p < .001$] with a negative beta weight, indicating that at higher scores of self-reassuring the relationship between self-criticizing and depressive symptoms decreased.

INSERT TABLE 3 ABOUT HERE

More specifically, simple slopes analysis (see Figure 2) showed that, for low levels of self-reassuring (-1 SD), the correlation between self-criticizing and depressive symptoms was moderate/high and significant ($r = .49$, $p < .001$), whereas for high level of self-reassuring (+ 1 SD) the correlation became non-significant ($r = .12$, $p > .05$), fully supporting the hypothesis that self-reassuring played as a buffer for the effect of self-criticizing on depressive symptoms.

INSERT FIGURE 2 ABOUT HERE

The second moderated regression was conducted in order to test if the significant moderating role of self-reassuring found in the previous analysis remained unchanged when self-esteem and self-esteem x self-criticizing interaction were added as predictors. As illustrated in Table 4, significant main effects on depressive symptoms for self-criticizing, self-reassuring and self-esteem were found. As expected, a non-significant interaction emerged between self-criticizing and self-esteem [R^2 change = .003, $F(1, 413) = 2.04$, $p = .15$]. Moreover, the interaction term between self-criticizing and self-reassuring remained negative and significant [R^2 change = .01, $F(1, 413) = 8.22$, $p = .004$], suggesting that for higher scores of self-reassuring the relationship between self-criticizing and depressive symptoms decreased, also when self-esteem and self-esteem x self-criticizing interaction were controlled for.

INSERT FIGURE 3 ABOUT HERE

More specifically, a simple slopes analysis (see Figure 3) showed that, for low levels of self-reassuring (-1 SD), the correlation between self-criticizing and depressive symptoms was significant for an entire range of self-esteem values [i.e., for low levels of self-esteem (-1 SD): $r = .19$, $p = .006$; for moderate levels of self-esteem: $r = .27$, $p = .001$; for high levels of self-esteem (+1 SD): $r = .34$, $p = .002$]. Conversely, for high level of self-reassuring (+1 SD) the correlation between self-criticizing and depressive symptoms was not significant for the same

range of self-esteem values [i.e., for low levels of self-esteem (-1 SD): $r = -.11$, $p = .32$; for moderate levels of self-esteem: $r = -.03$, $p = .62$; for high levels of self-esteem (+1 SD): $r = .04$, $p = .54$]. These results support the hypothesis that self-reassuring played as a buffer for the effect of self-criticizing on depressive symptoms also controlling for self-esteem.

A further regression analysis on depressive symptoms showed that self-esteem did not moderate the relationship between self-criticizing and depressive symptoms [R^2 change = .00, $F(1, 415) = .32$, $p = .57$] even when self-reassuring and self-reassuring x self-criticizing interaction were excluded from the analysis, suggesting that only self-reassuring, and not self-esteem, works as a buffer on the relationship between self-criticizing and depressive symptoms.

Discussion

Research is increasingly suggesting that self-criticism and compassionate self-reassuring should not be considered as a single bipolar dimension, with one pole simply representing the absence of the other. Instead, studies are suggesting that they are different and independent processes, with complex reciprocal interaction dynamics (Brenner et al., 2017; Castilho et al., 2015). Thus, we hypothesized that self-criticism would be correlated to depressive symptomatology, but that this association would be weaker at higher levels of self-reassuring abilities. Our results supported this hypothesis. We found that at low levels of self-reassuring the correlation between self-criticism and depressive symptoms was moderately high and significant ($r = .49$, $p < .001$). However, at higher scores of self-reassuring the relationship became non-significant, confirming that self-reassuring played as a buffer for the effect of self-criticizing on depressive symptoms. These findings are in line with the dual-factor or multi-factor model of mental health, claiming that psychopathology and positive mental health are not exact opposites; they can be seen as separate indicators of mental functioning that might interact with each other (Huppert & Whittington, 2003; Lamers, Westerhof, Glas, & Bohlmeijer, 2015). They are also in line with Gilbert's theory of social mentality and compassion (Gilbert, 2017; Gilbert et al.,

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2008) positing that positive mental health factors, such as compassion-oriented interactions with ourselves and others function as resilience resources against negative mental health factors such as self-criticism. For example, a recent study on bullying experiences and their association with body image and eating-related problems found that self-reassuring significantly moderated the association between bullying experiences and both body image shame and eating psychopathology (Duarte & Pinto-Gouveia, 2017). Similarly, Hermanto and colleagues (2016) found that our abilities to be open to receiving compassion from others significantly mediated the relationship between self-criticism and depressive symptoms.

From a counseling and psychotherapeutic point of view, these findings bring support the validity of compassion-focused approaches in helping clients with issues of self-criticism (Gilbert, 2014; Kirby & Gilbert 2017). These approaches vary from the more traditional cognitive approaches of challenging negative thoughts of self-criticism (e.g. 'I'm not so bad; I have evidence against this negative assumption about myself'), thus directly trying to *contradict and undermine the content of* self-criticism. In contrast, compassion focused approaches, such as Compassion Focused Therapy, seek first to understand the functions and the emotions associated with self-criticism — in fact, there is good evidence that it's the emotions of anger and contempt, rather than the content of self-criticism, that is most depressogenic (Whelton & Greenberg, 2005) — and to *increase* compassionate self-reassuring abilities. Some of the CFT interventions have the goal to increase compassion for the self, and even for the self-critical part of the self, which is seen as a protective strategy mostly derived from early dysfunctional developmental environments, and which needs to be compassionately "understood" in its functions. Compassionately engaging with self-criticism, instead of "fighting against" it, may provide individuals with an effective way to accept and process negative emotions, similar to other acceptance-based psychotherapies such as ACT (Tirch, Schoendorff, & Silberstein, 2014). Our data support this view, showing that lower depressive symptoms are found not only among people with low levels of self-criticism, but

also among those that show self-criticism associated to high levels of compassionate self-reassuring.

Interestingly, the same buffering effect was not found for another, apparently similar, self-relating process: self-esteem. Even though here, self-reassuring and self-esteem were highly significantly related, and showed a similarly high correlation with both self-criticism and depressive symptoms, self-esteem did not moderate the relationship between self-criticism and depressive symptoms. This is not surprising, considering that compassionate self-reassuring stems from a care-giving motivation and it is not based on the performance evaluations of self and others (Gilbert, 2014). It is also in line Gilbert's theory of social mentality (Gilbert et al., 2004), postulating that people interact with others *and themselves* using distinct processing systems: for example, competitive striving to succeed motives, in contrast to the support and caring motives for when things go wrong. The competitive striving motives that often underpin self-esteem can be particularly threat focused in the context of setbacks (Crocker & Park, 2004), whereas caring and supportive motives are evolved precisely to be helpful in these contexts. These different motives are linked to different emotions and triggers. For example, insofar as self-esteem is monitoring competitive threat, falls in social comparison and potential achievement failure (Crocker & Park, 2004), threat emotions of frustration and/or anxiety are likely to be triggered by setbacks (Gilbert et al., 2004). In contrast, motives to be supportive and reassuring would trigger different emotions when facing setbacks and failures. Hence, these different motives, that underpin distinctive types of self-to-self relating, will trigger different emotions in the context of failure. Compassion for the self is triggered exactly when self-evaluation might not be so favorable, and it's associated with warm positive emotions stemming from the desire to comfort and alleviate the pain of a wounded self. As such, it might provide individuals a more stable resilience base (positive emotions towards the self which don't originate from a self-evaluation) that might better help individuals navigate life's "ups and downs". On the contrary self-esteem, especially as captured by the Rosenberg self-esteem scale,

is the result of a comparative and evaluative process, ("I am able to do things as well as most other people", "I feel that I have a number of good qualities"). Self-esteem has shown to be more unstable than self-compassion (Neff & Vonk, 2009), thus failing to durably and efficiently counteract the negative effect of a self-critical stance. In fact, there is nothing within the self-esteem construct or process itself that indicates how to address the emergence of negative self-evaluation and affect in the face of setbacks and personal failures. This study suggests that self-critical patients might benefit of interventions that increase their ability to deal with setbacks and personal failures in non-judgmental and compassionate way, which reduces vulnerability to psychopathology, more than of interventions designed to increase their self-esteem. However, future experimental investigation are needed to further confirm these preliminary findings.

Limitations

Some limitations must be considered when interpreting the results of this study. First, the use of a largely white convenience sample may limit the generalizability of our results. The correlational and cross-sectional nature of the study prevents conclusions being drawn regarding causal links between the study variables. Future experimental or longitudinal research will be needed to clarify the causal directions of the links between variables. Moreover, we did not control for plausible third variables that might explain the observed relationships. Despite these limitations, the present study provided novel findings, which might potentially lead to improvements in the psychotherapy practices for individuals with self-criticism and depressive difficulties.

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Table 1.

Descriptive statistics of all study variables

	Mean	*SD*	Skewness	Kurtosis	alpha
Inadequate-Self	2.66	.83	.15	-.55	.90
Reassured-Self	3.52	.69	-.11	-.48	.86
Self-esteem	21.87	5.77	-.85	-.27	.90
CES-D	19.55	12.09	.61	-.37	.89

Note. Reassured-Self (self-reassuring); Inadequate-Self (self-criticizing); CES-D (depressive symptoms)

Table 2.

Correlations among all study variables

	CES-D	Self-esteem	Inadequate-Self
CES-D	1		
Self-esteem	-.65*	1	
Inadequate-Self	.52**	-.71**	1
Reassured-Self	-.52*	.73**	-.59**

Note. * $p < .05$; ** $p < .01$. CES-D (depressive symptoms); Reassured-Self (self-reassuring);

Inadequate-Self (self-criticizing)

Table 3

Multiple regression analysis on CES-D scores and self-reassuring as a moderator

Predictors	Beta	SE	t	p	R^2
Reassured-Self	-.34	.04	-7.61	.01	
Inadequate-Self	.31	.05	6.31	<.01	.38
REASS x INAD	-.19	.04	-4.55	<.01	

Note. CES-D (depressive symptoms); REASS = Reassured-Self (self-reassuring); INAD = Inadequate-Self (self-criticizing); SE = Standard Error

Table 4

Multiple regression analysis on CES-D scores including self-reassuring and self-esteem as moderators

Predictors	Beta	SE	$t(418)$	p	R^2
Reassured-Self	-.11	.06	-2.02	.04	
Self-Esteem	-.50	.07	-6.99	<.001	
Inadequate-Self	.12	.05	2.19	.03	.45
REASS x INAD	-.15	.05	-2.87	.004	
SES x INAD	.07	.05	1.43	.15	

Note. SES = Self-Esteem; REASS = Reassured-Self (self-reassuring); INAD = Inadequate-Self (self-criticizing); CES-D (depressive symptoms)

Figure Captions

Figure 1.

Main moderation model being tested with self-reassuring as moderator

Note. Hierarchical regression analyses with the interaction term were applied on the basis of Hayes (2003).

Figure 2

Simple slopes for the moderated regression with self-reassuring as a moderator

Figure 3

Simple slopes for the moderated regression with self-reassuring and self-esteem as moderators

Figure 1

Figure 2

Figure 3