

Focusing on self or others has different consequences for psychological well-being: A
longitudinal study of the effects of distinct interpersonal goals

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Abstract

A longitudinal study examined the association between interpersonal goals (self-image and compassionate goals) and depression, anxiety and stress symptoms. We propose that having self-image goals (trying to create and manage a positive image) may lead to psychological distress, while genuinely taking others' needs into account and caring for their welfare (compassionate goals) may promote psychological well-being.

The sample was composed by 161 university students (151 female, 8 male) who completed 6 surveys, every two weeks, assessing depression, anxiety and stress symptoms, interpersonal goals, goal-related affect, feelings of closeness and loneliness, interpersonal conflicts and positive emotions.

Regression analysis suggested that compassionate goals predicted decreases in pre and post levels of depression, anxiety and stress, while self-image goals predicted increases in these psychopathological symptoms. Positive affect and feelings of clarity and closeness and less interpersonal conflicts mediated the relation between compassionate goals and depression, anxiety and stress symptoms, while feelings of fear and confusion, loneliness and interpersonal conflicts and less positive emotions mediated the relation between self-image goals and depression, anxiety and stress symptoms.

Helping people reframe situations in terms of an ecosystem motivational framework and be more mindful of their goals and motivations may improve their well-being.

Keywords: Compassionate goals and self-image goals; depression, anxiety and stress symptoms; interpersonal relations; mediation analysis.

1. Introduction

Driven by a fundamental motivation to belong and connect, human beings spend a lot of time and energy trying to construct, maintain and defend positive images of themselves in the eyes of others (Leary & Baumeister, 2000). This is because having qualities that we think others' value will increase our chances of being accepted and included in groups, which would have increased our chances of survival in our evolutionary past (Baumeister & Leary, 1995). It is suggested that because humans have an innate motivation to belong and connect, and given that promoting an image of the self as attractive to others will increase the probability of being accepted and included, time and effort is spent in trying to manage an image of the self that is desirable to others.

Attempts to manage the impressions others have can sometimes lead to desired outcomes, and in fact others may come to form positive images of the self. However, recent research has been suggesting that despite some short-term benefits, such attempts can undermine interpersonal relationships and well-being in the long run (Baumeister, Campbell, Krueger, & Vohs, 2003; Colvin, Block, & Funder, 1995; Crocker & Park, 2004; Paulhus, 1998; Robins & Beer, 2001). The present study used a longitudinal design to test how different types of interpersonal goals predict psychological distress.

Interpersonal goals

Interpersonal goals are defined as goals to “attain, maintain, or avoid a specific end state for the partner or the relationship, such as to help the partner, maintain closeness, or avoid rejection” (Fitzsimons & Bargh, 2003 p. 150). Here we focus on two types of interpersonal goals that reflect the role of other people in relation to the self: self-image and compassionate goals (Crocker & Canevello, 2008).

Self-image goals refer to the desire to construct, maintain and defend positive images of oneself and to seek that others see oneself as valuable and worthy (Crocker & Canevelo, 2008).

Although constructing and maintaining a desirable image is a fundamental process in social interactions, humans have also the capacity to give, create and contribute to something outside or larger than themselves (Brown & Brown, 2006). Humans can at times genuinely care about the welfare of others, can be compassionate, generous and supportive, without concern for themselves and their self-image (Batson, 2011). When people are guided by compassionate goals in their relationships they are more aware of other people's needs, they care more about their well-being and are more responsive and supportive, and not necessarily at the expense of the self.

We base this study on the idea that humans have both self-centered and other-centered motivations (e.g., Hoffman, 1981; Brown & Brown, 2006; Sober & Wilson, 1998), and both conferred evolutionary advantages. Gaining inclusion and status depends on successfully creating a desirable self-image to others (Leary & Baumeister, 2000), while creating close and meaningful relationships may depend on being supportive to others and responsive to their needs, out of a genuine concern for their well-being (Reis, Clark, & Holmes, 2004). Both types of interpersonal goals address human fundamental needs, and thus it is not a question of one being good and the other bad. However, they may involve distinct processes and possibly have different consequences. We propose that individuals with more compassionate goals in their relationships may have less psychological distress. We predict that compassionate goals are associated with feelings of clarity and connectedness, feelings of closeness to others, less interpersonal conflicts and positive emotions, which can contribute to psychological

well-being. These predictions are based on the idea that compassionate goals are associated with an ecosystem perspective of relationships, i.e., with a belief of the interconnectedness of people and all life (Crocker & Canevello, 2008), and with previous studies pointing to the benefits of caring (e.g., Brown & Brown, 2006) and compassion (Cosley, McCoy, Saslow, & Epel, 2010). We also propose that individuals with high self-image goals may experience more psychological distress, and that such an association may be explained by several processes. We predict that self-image goals, by being associated with an egosystem perspective on relationships (Crocker & Canevello, 2008) in which the self is seen as separate from others, may lead to feelings of fear and confusion, loneliness, interpersonal conflicts and low positive emotions, which can contribute to psychological ill-being.

2. Methods

2.1. Participants

The sample was composed by 161 university students. The majority of the sample was female ($n=151$; 95%), with ages ranging between 18 and 55 ($M=21.34$; $SD=4.31$), and between 12 and 19 years in school ($M=13.36$; $SD = 1.36$). Regarding marital status, 98.1% ($n=155$) of the participants were single, 0.6% ($n=1$) were married and 1.3% were divorced ($n=2$). No significant differences were found between men and woman in the study.

2.2. Procedure

Students that agreed to participate were informed about the study aims and were asked to sign an informed consent form previous to their participation, in which

essential information about the study and confidentiality was presented. The completion of the pre-test self-report questionnaires was in person and took on average 30 minutes. Weekly measures were then completed online using Lime Survey, an online survey tool, and took around 20 minutes to complete. Participants who failed to complete at least three of the weekly surveys were excluded from the study. The post-test survey was also completed online, and included the same questionnaire as the pre-test survey. The methodological procedure is similar to Crocker and Canevello's study (2008).

2.3. Measures

2.3.1. Pre and Post-test measures

Depression, Anxiety, Stress Scale – 21 (DASS-21; Lovibond & Lovibond, 1995; Portuguese version by Pais-Ribeiro, Honrado, & Leal, 2004)

The DASS-21 comprises 3 subscales, each with 7 items. The Depression subscale measures low self-esteem and motivation, associated with feelings of hopelessness towards life goals. The Anxiety subscale assesses the connection between persistent anxiety state and the subjective feeling of fear as a response. The Stress subscale measures high levels of hyperarousal and tension, associated with low levels of resistance to frustration and disappointment. Participants were asked to indicate the degree to which each statement applied to them in the last two weeks. The DASS-21 uses a 4-point rating scale (0 = *Did not apply to me at all* to 3 = *Applied to me very much, or most of the time*). Subscale scores were computed by calculating the mean of subscale item responses.

2.3.2. Weekly Measures

Participants were asked to complete the weekly measures based on their last two weeks which corresponded to the time interval from their last survey.

Types of Positive Affect Scale (TPAS; Gilbert, McEwan, Mitra, Franks, Richter, & Rockliff, 2008).

The TPAS was developed to measure the degree to which people experience different positive emotions. Respondents are asked to rate 18 items describing feelings on a 5-point scale to indicate how characteristic it is of them (0 = *not characteristic of me* to 4 = *very characteristic of me*). The scale is composed by three factors measuring different types of positive feelings: Activating Positive Affect (e.g., *excited, dynamic, active*); Relaxed Positive Affect (e.g., *relaxed, calm, peaceful*) and Safeness/contentment Positive Affect (e.g., *safe, secure, warm*). The scale showed good psychometric properties with Cronbach's alphas of .83 for Activating Positive Affect and Relaxed Positive Affect, and .73 for Safeness/contentment Positive Affect. Subscale scores were computed by calculating the mean of subscale item responses.

The following weekly measures were adapted from Crocker and Canevello (2008).

Compassionate and Self-Image Goals (CSIG; Crocker & Canevello, 2008)

The CSIG is a 13-item scale that uses a 5-point rating scale (1 = *not at all* to 5 = *always*) to assess the extent to which subjects hold more compassionate or self-image goals regarding their friendships. There are 7 compassionate goals' items (i.e., "have compassion for others' mistakes and weaknesses") and 6 self-image goals' items (i.e., "avoid the possibility of being wrong"). All items begin with: "In the past week, in the area of friendship, how much did you want to or try to..." In the original study Cronbach's Alphas were .83 for Self-Image Goals and .90 for Compassionate Goals. Subscale scores were computed by averaging across the weekly reports.

Goal-related affect. Having in mind their interpersonal goals, participants were asked to rate the extent to which they felt critical (of self or others), competitive, clear,

loving, confused, peaceful, connected to others, empathic, isolated, engaged, present, ambivalent/conflicted, pressured, distracted, cooperative, and fearful, on a scale ranging from 1 (not at all) to 5 (extremely). Two factors were calculated: clear and connected (peaceful, connected to others, cooperative, loving, clear, present, empathic, and engaged); afraid and confused (fearful, ambivalent/conflicted, pressured, distracted, confused, critical, isolated, and competitive). These factors showed good internal consistency in the original study (.91 and .90). Subscale scores were computed by averaging across the weekly reports.

Feelings of closeness, loneliness and conflict. Single items were used to assess the frequency of feelings of closeness (“feel close to others”), loneliness (“feel lonely”), and interpersonal conflicts (“have conflicts with people”), in the past two weeks, on a rating scale ranging from 1 (*never*) to 5 (*always*). Subscale scores were computed by averaging across the weekly reports.

2.4. Statistical analyses

Correlations between compassionate and self-image goals and other variables were tested using partial correlations, given the strong association between compassionate and self-image goals. Multiple regression analyses were conducted to test the predictive power of goals on pre and post-test levels of depression, anxiety and stress symptoms. Hierarchical linear regression was used to explore whether interpersonal goals predicted change in these outcome variables over the study period, by entering pre-test scores as a first step, and compassionate and self-image goals simultaneously on the second step.

Several path models were tested to explore possible mediators for the association between interpersonal goals and residual scores of depression, anxiety and stress.

Standardized residual scores were calculated by regressing post-test scores on pre-test scores, giving a measurement of change from pre to post test. The estimation method used was Maximum Likelihood (ML) and the resampling method Bootstrap (with 2000 resamples) was conducted to estimate the significance of the indirect effects. This method creates 95% bias-corrected confidence intervals (CI) for estimates of total, direct and indirect effects.

The statistical procedures were computed with software IBM SPSS and AMOS (v. 20).

3. Results

3.1. Descriptive statistics

Descriptive statistics and reliability analysis of the study variables are described in Table 1.

Table 1

Means, Standard Deviations, Minimum, Maximum, Skewness, Kurtosis, and Cronbach's Alpha (α) of the Study Variables (N = 161)

	<i>M</i>	<i>DP</i>	<i>Min</i>	<i>Max</i>	Skew	Kurtosis	α
Compassionate Goals	3.40	.58	1.75	5.00	-.02	-.02	.82
Self-image Goals	2.90	.64	1.11	4.46	-.30	-.16	.83
Pre-test							
Depression	.48	.53	0	2.29	1.31	1.02	.90
Anxiety	.52	.57	0	2.57	1.42	1.77	.86
Stress	.96	.64	0	2.86	.71	.22	.89
Post-test							
Depression	.45	.53	0	2.43	1.70	2.84	.91
Anxiety	.43	.50	0	2.71	1.82	4.26	.87
Stress	.82	.55	0	2.86	.63	.50	.88
Weekly measures							
Clear and connected	3.38	.49	2.18	4.83	-.04	.29	.81

Afraid and confused	2.55	.47	1.35	4.00	-.07	.21	.76
Closeness	3.52	.52	2.40	5	.04	-.32	-
Loneliness	2.50	.63	1	4.40	.48	.08	-
Conflicts	2.07	.60	1	3.80	.25	-.24	-
Activating positive affect	3.48	.61	2.15	4.78	-.10	-.51	.91
Relaxed positive affect	3.86	.90	1.58	5.96	.07	.38	.93
Safe positive affect	3.46	.65	1.75	4.85	-.30	-.46	.86

Note. Compassionate Goals, Self-image Goals and the Weekly measures were calculated averaging the 5 weekly reports. The α for such variables is an average of the α for each weekly measurement.

3.2. Correlational analysis

Given that compassionate and self-image goals were strongly correlated ($r=.61, p < .001$), we conducted partial correlations to explore the size of the unique variances. So, in the correlations for compassionate goals the effect of self-image goals was controlled for, and vice versa. Table 2 presents the partial correlations between compassionate and self-image goals and pre and post-test measures and averaged weekly measures, and Table 3 presents the correlations between weekly measures and pre and post levels of depression, anxiety and stress.

Table 2.

Partial Correlations Between Compassionate and Self-image Goals and the Other Variables in Study

	Compassionate Goals	Self-image Goals
Pre-test measures		
Depression	-.21*	.35**
Anxiety	-.18*	.29**
Stress	-.20*	.36**
Post-test measures		

Depression	n.s.	.27*
Anxiety	n.s.	.24*
Stress	-.21*	.27*
<i>Weekly measures</i>		
Clear and connected	.56**	-.37**
Afraid and confused	n.s.	.46**
Closeness	.31**	-.23*
Loneliness	n.s.	.22*
Conflicts	n.s.	.35**
Active affect	.35**	-.26*
Relaxed affect	.35**	-.30**
Secure affect	.35**	-.34**

Note. * $p \leq .05$; ** $p < .001$; n.s. = non-significant

Table 3.

Correlations Between Weekly Measures and Depression, Anxiety and Stress at Pre and Post Levels

	Depression		Anxiety		Stress	
	Pre	Post	Pre	Post	Pre	Post
<i>Weekly measures</i>						
Clear and connected	-.31**	-.30**	-.21**	-.19*	-.25**	-.28**
Afraid and confused	.38**	.43**	.32**	.36**	.46**	.50**
Closeness	-.24**	-.23**	n.s.	n.s.	n.s.	n.s.
Loneliness	.50**	.48**	.29**	.24**	.42**	.37**
Conflicts	.22**	.36**	.16*	.32**	.23**	.36**
Active affect	-.50**	-.54**	-.30**	-.37**	-.36**	-.43**
Relaxed affect	-.44**	-.49**	-.44**	-.42**	-.58**	-.68**
Secure affect	-.52**	-.55**	-.40**	-.41**	-.54**	-.55**

Note. * $p \leq .05$; ** $p < .001$, n.s. = non-significant

Compassionate goals were negatively associated with depression (pre-test only) and stress and were positively correlated with feelings of connectedness and clarity,

feelings of closeness, supportive behaviours and positive affect (activating, relaxed and safe). Controlling for compassionate goals, self-image goals were positively associated with depression, anxiety and stress at pre and post-test, feeling afraid and confused, loneliness, and conflicts with others, and were negatively associated with weekly feelings of clarity and connectedness, closeness and positive affect (activating, relaxed and safe). Also, the associations between weekly measures and depression, anxiety and stress at pre and post levels were as expected; depression, anxiety and stress were associated with less feelings of clarity and connectedness, closeness (depression only) and activating, relaxed and safe positive affect, and increases in loneliness and interpersonal conflicts.

3.3. Regression Analysis

Table 3 shows the standardized regression coefficients for the relations between compassionate and self-image goals and the variables measured at pre and post-test, controlling for the pre-test scores.

Table 3

Standardized Regression Coefficients for the Relationship between Chronic Compassionate and Self-image Goals and Outcome Measures at Pre and Post-test, and Change from Pre-test to Post-test (N = 132)

Goals	Depression			Anxiety			Stress		
	pre	post	change	pre	post	change	pre	post	change
Compassionate	-.20*	-.19	.01	-.17	-.14	.02	-.20*	-.29*	-.13
Self-image	.41**	.37*	.05	.34*	.29*	.09	.44**	.37**	.07

Note. * $p \leq .05$; ** $p < .001$

Results suggested that increases in average levels of compassionate goals were associated with a significant decrease in pre and post stress ($t=-2.08$, $p=.039$; $t=-2.57$,

$p=.01$) and a decrease in pre levels of depression ($t=2.09, p=.038$). Increases in self-image goals predicted increases in depression at pre ($t=4.26, p < .001$) and post-test ($t=3.22, p = .002$), anxiety pre ($t=3.45, p=.001$) and post-test ($t=2.48, p=.01$) and stress pre ($t=4.65, p < .001$) and post-test ($t=3.29, p=.001$).

There were no significant associations between goals and change scores in the dependent variables.

3.4.Path Analyses

Although regression analyses revealed that there are no direct effects between interpersonal goals and change from pre-test to post-test in depression, anxiety and stress, we wanted to explore possible indirect effects. As suggested by Rucker, Preacher, Tormala & Petty (2011) and others, significant indirect effects can be found in the absence of significant total or direct effects. Thus, the next step was to explore which variables could mediate the association between interpersonal goals and change in depression, anxiety and stress from pre to post test. Several path models were tested in which interpersonal goals were entered simultaneously as predictors, residual scores of depression, anxiety and stress were outcomes and weekly measures were mediating variables.

3.4.1. Depression

Results from several path analyses indicated that the relation between compassionate goals and depressive symptoms was mediated by activating positive affect, $\beta=-.11 [-.225 - -.034], p=.006$, relaxed positive affect, $\beta=-.14 [-.242 - -.055], p=.001$ and safe positive affect, $\beta=-.12 [-.241 - -.031], p=.006$. The association between self-image goals and change in depressive symptoms was significantly mediated by

feeling afraid and confused, $\beta=.11$ [.010 – .220], $p=.033$, activating positive affect, $\beta=.08$ [.021 – .183], $p=.007$, relaxed positive affect, $\beta=.11$ [.036 – .223], $p=.002$, and safe positive affect, $\beta=.12$ [.028 – .226], $p=.008$.

3.4.2. Anxiety

The association between compassionate goals and change in anxiety symptoms was mediated by interpersonal conflicts, $\beta=-.05$ [-.117 – -.007], $p=.023$, relaxed positive affect, $\beta=-.09$ [-.054 – -.000], $p=.050$, and safe positive affect, $\beta=-.10$ [-.192 – -.019], $p=.019$. Significant mediators between self-image goals and anxiety symptoms were feelings of fear and confusion, $\beta=.11$ [.025 – .212], $p=.013$, number of conflicts, $\beta=.10$ [.023 – .198], $p=.015$, relaxed affect, $\beta=.08$ [.000 – .048], $p=.047$, and safe positive affect, $\beta=.10$ [.014 – .195], $p=.021$.

3.4.3. Stress

Finally, the relationship between compassionate goals and stress symptoms was mediated by feeling clear and connected, $\beta=-.14$ [-.286 – -.019], $p=.024$, number of conflicts, $\beta=-.05$ [-.122 – -.007], $p=.021$, and activating, $\beta=-.13$ [-.248 – -.055], $p=.001$, relaxed, $\beta=-.20$ [-.315 – -.110], $p < .001$, and safe positive affect, $\beta=-.13$ [-.230 – -.043], $p=.005$. The significant indirect effects between self-image goals and stress symptoms were mediated by feeling clear and connected, $\beta=.08$ [.014 – .201], $p=.018$, feeling afraid and confused, $\beta=.16$ [.070 – .261], $p = .001$, loneliness, $\beta=.04$ [.001 – .108], $p=.046$, and activating, $\beta=.10$ [.038 – .199], $p=.001$, relaxed, $\beta=.16$ [.073 – .269], $p=.001$, and safe positive affect, $\beta=.13$ [.037 – .236], $p=.005$.

All models presented good model fit assessed through several fit statistics, namely relative chi-squared (χ^2/df), Comparative Fit Index, (CFI), Tucker-Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA).

In sum, results from the mediational studies showed that compassionate goals predicted decreases in psychological symptoms over time because they were associated with feelings of clarity and connectedness (stress only), less interpersonal conflicts (anxiety only) and positive emotions (activating, relaxed and safe). In contrast, self-image goals seem to increase psychological distress by being associated with a sense of fear and confusion, feelings of loneliness (stress only), more interpersonal conflicts (anxiety and stress) and less positive emotions.

4. Discussion

On their daily lives, and in virtually any activity, people may try to get others to satisfy, or not block, their needs and desires by trying to manage a desirable image in the eyes of others, or they may try to be constructive and supportive of others' needs and desires. We predicted that when people give equal priority to the needs of others, and genuinely care about and want to support others' well-being, they will experience less psychological distress. On the other hand, we predicted that when people have a self-interest perspective in their relationships they may experience more psychological distress in the long run.

Our results generally supported these hypotheses. Compassionate goals predicted decreases in psychological symptoms probably because they made students feel clear and connected (stress), experience less interpersonal conflicts (anxiety) and experience more positive emotions (activating, relaxed and safe). In contrast, self-image goals seem to paradoxically increase psychological distress by being associated with a

sense of fear and confusion, by leading to feelings of loneliness (stress), by creating more interpersonal conflicts (anxiety and stress) and by decreasing positive emotions.

It seems that by being associated with a sense of clarity and connectedness, by promoting fewer conflicts with others and by increasing positive emotions, compassionate goals predict less psychological distress over time. This is line with the literature pointing to the negative impact of interpersonal conflicts on psychological distress (e.g., Nazir & Mohsin, 2013), and also to the considerable evidence showing that being able to experience positive affect has beneficial effects on mental health, and especially in depression (e.g., Höhn et al., 2013; Tugade & Fredrickson, 2004).

These results can be conceptualized and interpreted in terms of the physiological mechanisms underlying self-image and compassionate goals. MacLean (1990) and Henry & Wang (1998) proposed that there are two organizing physiological and emotional systems: the self-preservative and the species-preservative. The self-preservative system is focused on defending the organism from harm and securing resources necessary for survival. It is based on a sense of self vs other, a separate sense of 'I', and developed early in evolutionary history. The species-preservative system evolved more recently and is based on a more inclusive sense of self and promotes awareness of our interconnectedness with others. It is concerned with the well-being of others and implies an inclusive sense of 'I'. Like compassionate and self-image goals, and ecosystem and egosystem motivational approaches more broadly, self-preservative and species-preservative modes are present in every individual. Individual differences in thresholds of negative affect may lead to a temporary shift from a species-preservative mode to a self-preservative mode. Self-preservation is appropriate and necessary in situations where danger is present or when we need to secure basic needs. It is the activation of this system in everyday life in response to everyday events that can

become problematic. It is suggested that self-image goals, and the ecosystem motivation perspective, are associated with the self-preservative system, because threats to the self-image may be confused with survival threats, activating the self-preservation motivational system. Consistent with this view, a great deal of research has demonstrated that cortisol, which is released when the fight-or-flight self-preservation system is activated, is also associated with psychological threats to the self-image (Dickerson & Kemeny, 2004), to major depression (Connor & Leonard, 1998; Gold, Licinio, Wong, & Chrousos, 1995; Maes, 1999), and to mental disorders in general (Sapolsky, 1998). We hypothesize that it is the activation of this system that lead to low positive emotions and depressive, anxious and stress symptoms.

Compassionate goals and an ecosystem motivational perspective are hypothesized to be associated with the species-preservative system, which is thought to give rise to parental care, social interaction and pair bonding. Hormones associated with the species-preservation system, such as oxytocin and progesterone, are linked to affiliation, trust and giving in humans, even with strangers (Kosfeld, Heinrichs, Zak, Fischbacher, & Fehr, 2005; Schultheiss, Wirth, & Stanton, 2004; Taylor et al., 2000). We hypothesize that the activation of the species-preservation system, by down-regulating the self-preservative mode (Taylor et al., 2000), may explain why compassionate goals were associated with more positive emotions, and with decreased psychological distress.

There can also be other indirect links between interpersonal goals and psychological distress. For example, Crocker, Canevello, Breines, & Flynn (2010) found that compassionate goals predicted decreased distress in part because they predicted increased support received and especially support given, which is in line with research demonstrating the ill-effects of poor of social support (e.g., Holt-Lunstad,

Smith & Layton, 2010; Uchino & Kiecolt-Glaser, 1996), and the benefits of giving support (Brown & Brown, 2006). In the present study, support given and received was not assessed, but interpersonal conflicts, which can lead to poor social support given and received, mediated the relation between interpersonal goals and anxiety and stress.

In sum, the motivation to contribute to others' well-being and the egoistic motivation to benefit the self involve distinct goals and feelings. When people genuinely care about the well-being of others, they have compassionate goals, i.e., they want to be constructive and supportive and not harm others; and feel peaceful, clear and loving. When people want to benefit or protect the self, and see the relation between self and others as an egosystem, they have self-image goals, and may feel conflicted, confused and fearful.

This study has several limitations. Although results support the theoretical hypotheses, it is not possible to draw conclusions regarding the direction of causal relations. For example, Crocker et al. (2010) found that distress and interpersonal goals can be mutually reinforcing and that when people feel more distress compassionate goals decrease and self-image goals increase. Also, these results should be replicated in populations other than university students, and more gender homogenous to test for possible gender differences. In fact, it has been suggested that females may differ in their biobehavioral responses to stress, which are thought to be less mediated by the fight-or-flight response and more by the attachment-caregiving system (Taylor et al., 2000), which may have implications for studies on interpersonal goals and psychological distress. Finally, this study is based on self-report measures and thus suffers the limitations from such methodology (e.g., demand characteristics, social desirability bias...).

Despite these limitations, this study is an important contribution for the growing field of compassion research, and advances our understanding of the benefits of caring for others. Also, it offers several avenues for future studies and for psychological interventions for symptoms of depression, anxiety and stress. Helping people reframe stressful situations in a more ecosystem perspective, bringing compassionate intentions to their relations with others, may lead to a down-regulation of the stress response which may reduce the risk for psychopathological symptoms. This is in line with recent findings suggesting that compassion-based interventions are associated with personal well-being, including stress-related immune responses (Pace et al., 2009), positive affect (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008), and psychological and physical health (Fredrickson et al., 2008).

The interpersonal goals people adopt, which reflect broader motivational tendencies, can have a significant impact on their psychological well-being. It is thus suggested that being more mindful of such goals and motivations so they can be changed when unhelpful may have valuable benefits for relations and well-being.

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