

Protection or Vulnerability? A Meta-Analysis of the Relations Between the Positive and Negative Components of Self-Compassion and Psychopathology

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Self-compassion is increasingly explored as a protective factor in relation to psychopathology. The Self-Compassion Scale (SCS) and its Short Form variant (SCS-SF) are the most widely used instruments for measuring this psychological construct, and previous studies have indeed shown that the total score of this scale is negatively associated with psychopathology. In this article, we point out that half of the items of the SCS and SCS-SF are positive indicators of self-compassion and directly refer to the three key components of self-kindness, common humanity and mindfulness, while the other half of the items are negative indicators of the construct and reflect the precise opposite of the key components, namely self-judgment, isolation and over-identification. A meta-analysis was conducted including 18 studies that reported on the positive and negative indicators of self-compassion as indexed by the SCS/SCS-SF and their relations to various types of psychopathology. Results showed that positive indicators of self-compassion were negatively associated with psychopathology, which confirms their hypothesized protective influence. However, the negative indicators were positively linked to psychopathology, suggesting that these scales tap increased vulnerability to mental health problems. Moreover, tests comparing the strength of the relations between various SCS/SCS-SF counterparts (i.e., self-kindness versus self-judgment, common humanity versus isolation and mindfulness versus over-identification) and psychopathology showed that the negative indicators were significantly stronger linked to mental health problems than the positive indicators. This provides support for the idea that the use of a total self-compassion score of the SCS or SCS-SF, which typically includes the reversely scored negative subscales, will probably result in an inflated relationship with symptoms of psychopathology. Copyright © 2016 John Wiley & Sons, Ltd.

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INTRODUCTION

Self-compassion can be defined as the tendency to be caring, warm and understanding towards oneself when faced with personal shortcomings, inadequacies or failures. While the concept can already be found in older Buddhist Asian literature (e.g., Rahula, 2007), it is a relatively new topic of Western world. According to Neff (2015), self-compassion consists of three core components, namely (1) self-kindness, which refers to the tendency to be caring and understanding with oneself when

confronted with personal failure, problems and stress; (2) common humanity, which concerns the inclination to recognize that one's failure, problems and stress are a normal part of human life; and (3) mindfulness, which is described as the ability of not becoming too absorbed by one's difficulties and associated negative feelings so that it is possible to retain a healthy balance between what goes right and what goes wrong (Neff, 2003a). Self-compassion is viewed as a protective factor that fosters emotional resilience (Neff, 2009), and as such the construct seems particularly relevant to the study of human adaptation to life adversity and stress. Since its introduction in the scientific literature, more than a decade ago, self-compassion has received a steadily increasing amount of research attention, especially in the field of clinical psychology and psychiatry. The accumulating evidence

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indicates that this construct is indeed related to psychological well-being: individuals with higher levels of self-compassion generally display lower levels of stress and psychopathological symptoms (Gilbert, 2009; MacBeth & Gumley, 2012; Neff, 2015). Of particular interest is that self-compassion may also provide a lead for intervention, as it can be assumed that the promotion of these self-soothing skills will enhance psychological health (e.g., Gilbert, 2010).

To measure self-compassion, most researchers have relied on the Self-Compassion Scale (SCS; Neff, 2003b) or its abbreviated version, the Self-Compassion Scale-Short Form (SCS-SF; Raes, Pommier, Neff, & Van Gucht, 2011), which have been used in the Anglo-Saxon part of the world as well as in various other countries (e.g., Belgium: Raes *et al.*, 2011; China: Wong & Mak, 2013; Germany: Hupfeld & Ruffieux, 2011; Greece: Mantzios, Wilson, & Giannou, 2015; Iran: Ghorbani, Watson, Chen, & Norballe, 2012; Italy: Petrocchi, Ottaviani, & Couyoumdjian, 2014; Japan: Yamaguchi, Kim, & Akutsu, 2014; Korea: Choi, Lee, & Lee, 2014; Portugal: Costa & Pinto-Gouveia, 2011; Spain: Garcia-Campayo *et al.*, 2014; Thailand and Taiwan: Neff, Pisitsungkagarn, & Hsieh, 2008; the Netherlands: Smeets, Neff, Alberts, & Peters, 2014; Turkey: Deniz, Kesici, & Sümer, 2008).

While initial psychometric evaluations have indicated that the SCS and the SCS-SF are reliable measures (e.g., Neff, 2003b), critique can be raised regarding the validity of these scales as not all items reflect the protective nature of this self-related construct. That is, half of the items of both the full and the short form of the SCS do not measure the three core self-compassion elements of self-kindness, common humanity and mindfulness, but rather assess their precise counterparts which are represented in three 'negative' subscales of self-judgment, isolation and over-identification. These reverse items can be considered as problematic as they seem to measure characteristics that are already known to be related to psychopathology. More precisely, self-judgment shows clear similarities with harsh self-criticism, isolation shares features with social withdrawal and loneliness, whereas over-identification matches with self-absorption and self-focused rumination, all of which have been demonstrated to be pervasive features of psychopathology (e.g., Lyubomirsky & Nolen-Hoeksema, 1995; Rubin & Coplan, 2004; Zuroff, Igeja, & Mongrain, 1990). Thus, it can be argued that the widely employed SCS and its abbreviated version, the SCS-SF, may not be optimal instruments for measuring the true protective nature of self-compassion, mainly because these scales include negative items that tap toxic mechanisms which may inflate the relationship with psychopathology.

So far, there has been a tendency in the literature to neglect this critical point, which is nicely illustrated by the fact that most studies have employed the total score on the SCS or the SCS-SF, which include the reversely scored negative items, as an index of self-compassion. Half a

decade ago, Barnard and Curry (2011) noted in their qualitative review that at that point-in-time only two studies (Mills, Gilbert, Bellew, McEwan, & Gale, 2007; Ying, 2009) could be found that had examined the relationships between psychopathology and the subscales of the SCS.¹ In both investigations, symptoms appeared to be negatively associated with self-kindness, common humanity and mindfulness, whereas positive associations were found between symptoms and self-judgment, isolation and over-identification. In addition, Barnard and Curry noted that the strength of the associations with the positive indicators of self-compassion, especially with common humanity, tended to be weaker than those with the negative subscales, but that obviously more research was needed to substantiate this impression.

In recent years, many studies have appeared in the mental health literature examining the relation between self-compassion as indexed by the SCS or the SCS-SF and indices of psychopathology and psychological well-being, and so the time is ripe to further explore this issue. We conducted a systematic search of the literature to detect research papers that investigated the links between the SCS or SCS-SF subscales and mental health symptoms. A meta-analysis was then conducted on these data to quantify the magnitude of the relations between the positive and negative aspects of self-compassion and psychopathology. A previous meta-analysis by MacBeth and Gumley (2012) exploring the relation between general self-compassion as indexed by the SCS or SCS-SF total score and psychopathology documented a quite large overall effect size of $r = -0.54$, which was used as a reference point against which the effect sizes as obtained in the current study could be compared. At the time MacBeth and Gumley conducted their meta-analysis, the research had mainly been focused on the relevance of self-compassion for the emotional symptoms of anxiety, depression and stress. Given the relative scarcity of studies reporting on the relations between self-compassion subscales and psychopathology, we decided not only to focus on such emotional symptoms but to include as many studies as possible, thereby covering a broader range of mental health problems.

METHOD

Literature Search and Selection of Studies

A literature search in the Web-of-Science database was conducted with [SELF-COMPASSION or SELF COMPASSION in title] as the key search terms. The search which

¹Apparently, MacBeth and Gumley (2012) did not notice the publication by Neff *et al.* (2008) which had already appeared by then.

was conducted in week 29 of 2015 generated a total of 227 articles. Each of these articles was thoroughly inspected to find out whether the pertinent study (1) had made use of the SCS or SCS-SF to assess individual differences in self-compassion, (2) investigated the hypothesized protective role of self-compassion within the context of psychopathology or psychological well-being, and (3) most importantly reported on the relation between self-compassion and symptom levels not only by using the total self-compassion score of the SCS or SCS-SF but also by means of the 'positive' and 'negative' subscales of these measures. More than half of the articles ($n=117$) were found that included a standardized assessment of self-compassion: 91 studies had used the original full-length SCS, 18 investigations employed the SCS-SF, whereas 8 other research projects relied on an alternative questionnaire for assessing this self-related construct. From this it can be concluded that the SCS and the SCS-SF are by far the most popular instruments for measuring individual differences in self-compassion. Our search further indicated that self-compassion is a psychological construct that has generated considerable and steadily increasing interest in the past years, and is widely investigated as a protective variable not only within the context of psychopathology but also in a wide variety of other stressful conditions, including taxing medical, work and sporting conditions.

Importantly, we found that only 18 out of 109 (16.5%) of the studies, which used the SCS or SCS-SF to explore the protective nature in terms of psychopathology and psychological well-being, did report the results documented with the separate positive and negative subscales. These relevant studies are listed in Table 1. First, it should be noted that only 4 of the 18 studies (Costa & Pinto-Gouveia, 2011; Neff *et al.*, 2008; Van Dam, Sheppard, Forsyth, & Earleywine, 2011; Ying, 2009) were also included in the meta-analysis performed by MacBeth and Gumley (2012), meaning that—when taking all the studies included in both meta-analyses into account—the overlap between both studies was quite small (i.e., <15%).

Further, as can be seen, 11 of the relevant studies were conducted in non-clinical populations such as high school or university students and people recruited from the general population, whereas 7 studies were carried out with patient samples. A total of 3802 participants was present in all these studies, and samples included a mix of males and females (but see Barry, Loflin, & Doucette, 2015, who only included males, and Wasylikiw, MacKinnon, & MacLellan, 2012, who only included females), and although the majority was conducted with adults, 3 studies were found that specifically focused on youths (Barry *et al.*, 2015; Bluth & Blanton, 2014; Muris, in press), whereas two other investigations focused on elderly individuals (Costa & Pinto-Gouveia, 2011; Phillips & Ferguson, 2013). The design of the studies was in most

cases correlational, but 4 studies relied on a patient-control comparison to examine the relation between self-compassion and psychopathology. Sixteen studies assessed self-compassion with the original SCS, one study relied on the SCS-SF (Muris, in press), while one other investigation made use of both scales (Garcia-Campayo *et al.*, 2014). The type of psychopathology that was addressed in these 18 studies was quite mixed: although depression ($n=10$) and anxiety ($n=8$) were most often the symptoms of investigation (cf. MacBeth & Gumley, 2012), it is clear that researchers have explored the relevance of self-compassion for a variety of problems including stress, pain, psychosis, bipolar disorder, addiction, disruptive behaviour and eating problems.

Measurement of Self-Compassion

As noted earlier, the present meta-analysis only included studies that employed either the original or the short form of the SCS to measure individual differences in self-compassion. The original SCS consists of 26 items that are allocated to six subscales measuring the core components of self-compassion in three opposing pairs: self-kindness (5 items; e.g., 'I try to be understanding and patient towards those aspects of my personality I don't like') versus self-judgment (5 items; e.g., 'I am disapproving and judgmental about my own flaws and inadequacies'), common humanity (4 items; e.g., 'When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people') versus isolation (4 items; e.g., 'When I fail at something that is important to me, I tend to feel alone in my failure'), and mindfulness (4 items; e.g., 'When something painful happens, I try to take a balanced view of the situation') versus over-identification (4 items; e.g., 'When I fail at something important to me, I become consumed by feelings of inadequacy'). Items are scored on a five-point rating scale ranging from 1 (almost never) to 5 (almost always). Subscale scores can be obtained by summing across relevant items, and a total score can be obtained by summing ratings of all items after reversing the scores on items belonging to the three negative subscales (i.e., self-judgment, isolation and over-identification).

The SCS-SF is composed of 12 items taken from the original scale, with two items representing each of the six primary subscales. The study by Raes *et al.* (2011) demonstrated fairly high correlations between the corresponding subscales of the original and short form version, with $r=0.97$ for the total score, $r=0.91$ for self-kindness, $r=0.93$ for self-judgment, $r=0.84$ for common humanity, $r=0.86$ for isolation, $r=0.87$ for mindfulness and $r=0.88$ for over-identification, which indicates that the SCS-SF scales are good approximations of their original counterparts.

Table 1. Overview and description of the 18 studies that were included in the present meta-analysis

Study	Design	Participants	n (Female/male)	M age (range)	Scale used to measure self-compassion	Psychopathology and mental health problems
Mills <i>et al.</i> (2007) [†]	Correlational	University students	131 (83/48)	22 years (NR)	SCS	Depression, paranoid ideation
Neff <i>et al.</i> (2008)	Correlational	Three samples of undergraduate students from the United States, Thailand and Taiwan	181, 223 and 164 (117/64, 101/122 and 119/45)	21 years (NR), 20 years (NR), and 21 years (NR)	SCS	Depression
Ying (2009)	Correlational	University students	65 (58/7)	28 years	SCS	Depression
Costa and Pinto-Gouveia (2011)	Correlational	Patients with chronic pain and rheumatoid arthritis	103 (82/21)	60 years (NR)	SCS	Anxiety, depression, pain, stress
Iskender and Akin (2011)	Correlational	University students	261 (140/121)	21 years (17–24)	SCS	Internet addiction
Van Dam <i>et al.</i> (2011) [†]	Correlational	Participants recruited from the general population reporting significant symptoms of anxiety	504 (396/108)	38 years (18–73)	SCS	Anxiety, depression, worry
Wasylikiw <i>et al.</i> (2012)	Correlational	University students	142 (142/0)	19 years (17–22)	SCS	Body preoccupation, eating problems, depression
Werner <i>et al.</i> (2012)	Group comparison	Patients with social anxiety disorder and age-matched healthy controls	112: 72 versus 40 (39/33 versus 20/20)	34 years (NR)	SCS	Social anxiety disorder
Eicher <i>et al.</i> (2013)	Correlational	Patients with schizophrenia or schizoaffective disorder	88 (12/76)	50 years (NR)	SCS	Psychotic symptoms
Hoge <i>et al.</i> (2013)	Group comparison	Patients with generalized anxiety disorder and age-matched healthy controls	136: 87 versus 49 (74/62)	39 years (NR)	SCS	Generalized anxiety disorder
Krieger, Altenstein, Baettig, Doerig, and Holtforth (2013)	Group comparison	Outpatients with depression and never-depressed controls	253: 134 versus 119 (75/59 versus 68/51)	41 years (NR) versus 31 years (NR)	SCS	Depressive disorder
Phillips and Ferguson (2013)	Correlational	Non-clinical elderly participants	185 (105/79)	73 years (65–92)	SCS	Negative affect
Bluth and Blanton (2014) ^{††}	Correlational	High school students	67 (39/28)	NR (14–18)	SCS	Negative affect, stress
Garcia-Campayo <i>et al.</i> (2014)	Correlational	University students	268 (160/108)	21 years (NR)	SCS and SCS-SF*	Anxiety, depression, stress
Petrocchi <i>et al.</i> (2014) [†]	Correlational	Non-clinical participants recruited from the general population	424 (259/165)	37 years (17–65)	SCS	Anxiety, depression

(Continues)

Table 1. (Continued)

Study	Design	Participants	n (Female/male)	M age (range)	Scale used to measure self-compassion	Psychopathology and mental health problems
Barry <i>et al.</i> (2015)	Correlational	Adolescents in a residential programme	251 (0/251)	17 years (16–18)	SCS	Aggression, anxiety, depression, narcissism
Dossing <i>et al.</i> (2015)	Group comparison	Patients with bipolar disorders and age-matched healthy controls	60: 30 versus 30 (NR)	31 years (NR)	SCS	Bipolar disorder
Muris (in press)	Correlational	High school students	184 (100/84)	14 years (12–16)	SCS-SF	Anxiety, depression, disruptive behaviour problems, somatization

Note. SCS = Self-Compassion Scale, SCS-SF = Self-Compassion Scale-Short Form.

[†]Data partly obtained via corresponding author.

[‡]Data partly based on internet-published doctoral dissertation (Bluth, 2012).

*From this study original SCS data were employed for the meta-analysis.

Meta-Analytic Procedure

Wilson's (2010) online practical meta-analysis effect size calculator was employed to conduct the meta-analysis (see also Lipsey & Wilson, 2001). To enhance comparability with the meta-analysis conducted by MacBeth and Gumley (2012), we chose the correlation coefficient (r) as our effect size indicator. This was also practical as the majority of studies reported on the correlation between SCS/SCS-SF self-compassion and psychopathology scores. By imputing the correlation and the sample size, the programme calculated the Fisher's Z-transformed correlation as well as the accompanying 95% confidence interval (CI). Four investigations relied on patient-control comparisons, which was no problem as the programme also includes an option to contrast two groups on a continuous dependent variable which also produces Fisher's Z correlation and 95% CI. In this way, the relationship between self-compassion on the one hand, and each index of psychopathology, in contrast, was expressed in our effect size indicator r . These individual effect sizes were averaged for each study, and these study effect sizes were eventually pooled across all studies to obtain an overall effect size. This overall effect size was computed for the relationship between total SCS and psychopathology so that a direct comparison with MacBeth and Gumley (2012) could be made. Most importantly, however, the meta-analysis was also conducted for the six separate self-compassion subscales of the SCS/SCS-SF in order to explore differences in the magnitude of the relations, again as expressed in effect size indicator r , between the positive and negative aspects of self-compassion and psychopathology.

RESULTS

Figure 1 displays a forest plot of the averaged effect size estimates for the relationship between total self-compassion and psychopathology as found for each of the studies included in the meta-analysis. As can be seen all r 's were negative, reflecting the hypothesized protective character of this self-related construct. The smallest effect size was found for the study by Eicher, Davis, and Lysaker (2013) which was concerned with the link between self-compassion and psychotic symptoms, whereas the largest effect size was documented for the investigation by Werner *et al.* (2012) which focused on the relation between self-compassion and social anxiety disorder. The pooled effect size across all studies was large, $r = -0.53$ (95% CI = -0.70 to -0.36 ; $Z = 36.37$, $p < 0.001$), and almost identical and thus not significantly different from the pooled effect size of $r = -0.54$ as reported by MacBeth and Gumley (2012; $Z = 0.62$, $p = 0.27$).

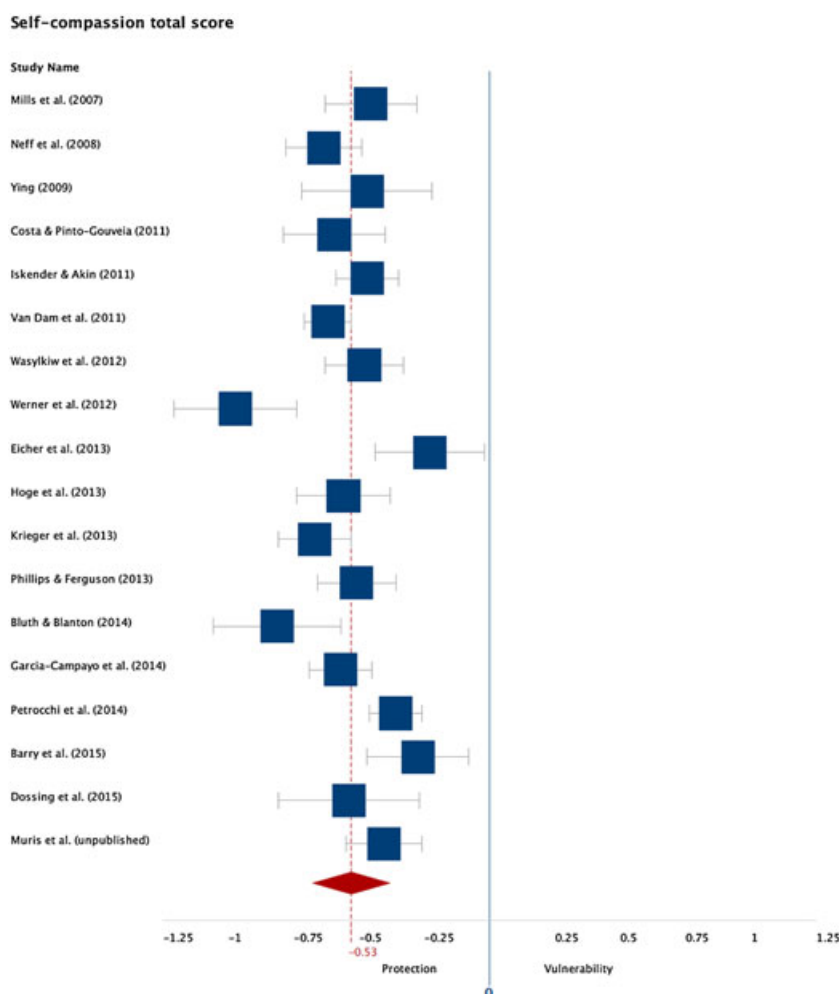


Figure 1. Forest plot showing the (mean) effect size (r) and 95% confidence intervals for the relationship between the total self-compassion score as obtained by the SCS or SCS-SF and psychopathology for each of the 18 studies as well as the overall effect size. [Colour figure can be viewed at wileyonlinelibrary.com]

Separate effect sizes for the relations between various positive and negative indicators of self-compassion as indexed by the SCS or SCS-SF and psychopathology are displayed in Table 2. As can be seen, the positive indicators of self-compassion (i.e., self-kindness, common humanity and mindfulness) were all significantly, negatively related to psychopathology, with average r 's ranging between -0.27 and -0.34 , indicating moderate protective effects. In contrast, the negative indicators of self-compassion (i.e., self-judgment, isolation and over-identification) were all significantly, positively associated with psychopathology, with mean r 's varying between 0.47 and 0.50 , which represent fairly large vulnerability effects.

To compare the strength of the relations with psychopathology between positive and negative counterparts of the SCS and SCS-SF, tests for comparing correlated correlation

coefficients were performed (Meng, Rosenthal, & Rubin, 1992). To make a direct comparison possible, the negative indicators were reversed (as is also performed when computing a total self-compassion score for the SCS or SCS-SF).² As can be seen in Table 3, all comparisons indicated that the negative indicators of self-compassion (i.e., self-judgment, isolation and over-identification) were more convincingly associated with psychopathology than the positive indicators of this self-related construct (i.e., self-

²For conducting these tests, inter-correlations among SCS/SCS-SF subscales were also needed. As we did not have the disposal over the exact inter-correlations among SCS/SCS-SF subscales in the 18 included studies, the smallest inter-correlations that we found in the literature (Raes *et al.*, 2011) were used, thereby testing differences in the strength of these correlations in the most conservative way.

Table 2. Main results of meta-analysis of the relation between positive and negative indicators of self-compassion as indexed by the SCS or SCS-SF and psychopathology as documented in the 18 studies (total $n = 3802$)

Index of self-compassion	Average effect size r	95% CI	Z	p
Self-kindness	−0.34	−0.52 to −0.19	21.83	<0.001
Common humanity	−0.27	−0.44 to −0.11	17.07	<0.001
Mindfulness	−0.33	−0.50 to −0.17	21.13	<0.001
Total positive indicators	−0.31	−0.49 to −0.16	19.76	<0.001
Self-judgment	0.47	0.30 to 0.65	31.44	<0.001
Isolation	0.50	0.33 to 0.67	33.86	<0.001
Over-identification	0.48	0.31 to 0.66	32.24	<0.001
Total negative indicators	0.48	0.31 to 0.66	32.24	<0.001

Note. SCS = Self-Compassion Scale, SCS-SF = Self-Compassion Scale-Short Form.

Table 3. Statistical comparisons of the relations with psychopathology between the positive and negative counterparts of the SCS and SCS-SF

Comparison (positive versus negative)	Average effect sizes r (respectively)	Z	p
Self-kindness versus Self-judgment (R)	−0.34 versus −0.47	8.62	<0.001
Common humanity versus Isolation (R)	−0.27 versus −0.50	13.61	<0.001
Mindfulness versus Over-identification (R)	−0.33 versus −0.48	9.01	<0.001
Total positive versus Total negative indicators (R)	−0.31 versus −0.48	10.45	<0.001

Note. SCS = Self-Compassion Scale, SCS-SF = Self-Compassion Scale-Short Form. R = To conduct these comparisons, scores on negative indicators were reversed.

kindness, common humanity and mindfulness), with all differences being highly significant (Z 's ≥ 8.62 , p 's < 0.001).

DISCUSSION

Self-compassion is a self-related psychological construct referring to the ability to view one's personal problems and feelings of inadequacy and suffering with a sense of warmth, connection and balance (Neff, 2003a, 2003b). More precisely, self-compassion has been defined as consisting of three major components, namely self-kindness (the ability to treat oneself with kindness), common humanity (the ability to recognize that suffering and inadequacy is a shared aspect of human life) and mindfulness (the ability to maintain an even-handed perspective on one's suffering), which are all thought to promote an individual's resilience when facing personal difficulties (Neff, 2003a). Given this definition, it is not surprising that self-compassion has been put forward as a protective mechanism against the development of mental health problems (Neff, 2009). In the past two decades, a steadily increasing amount of studies have explored the relationship between self-compassion and psychopathology, initially mainly focusing on symptoms of anxiety, depression and stress, but—as the current review shows—this research has gradually extended to a large variety of mental health problems, including pain, psychosis, bipolar disorder, addiction, disruptive behaviour and eating problems. In general, this line of investigation has

provided accumulating evidence for the notion that individuals with higher levels of self-compassion indeed display lower levels of psychopathological symptoms (Gilbert, 2009; MacBeth & Gumley, 2012; Neff, 2015).

The vast majority of the studies on self-compassion and its relationship to psychopathology have relied on the SCS (Neff, 2003b) or its abbreviated version, the SCS-SF (Raes *et al.*, 2011), to assess this protective psychological construct. One half of the items of these questionnaires are positive indicators of self-compassion and directly refer to the three key components of self-kindness, common humanity and mindfulness, while the other half of the items are negative indicators of the construct and reflect the precise opposite of the key components, namely self-judgment, isolation and over-identification. Respondents' ratings of these negatively worded items are reversed and then summed with ratings on positive items to yield a total score of self-compassion. The inclusion of both positively and negatively worded items in questionnaires has been introduced decades ago with the aim of preventing response bias. However, there are clear indications that the use of reversed items does not prevent response bias but in fact may undermine the quality of the assessment (Van Sonderen, Sanderman, & Coyne, 2013). The latter also seems to some extent true for the SCS as recently conducted, sophisticated factor analyses did not produce univocal support for the construct validity of the questionnaire (Lopez *et al.*, 2015; Williams, Dalgleish, Karl, & Kuyken, 2014). Moreover, when studying the relevance of self-compassion within the context of psychopathology,

the inclusion of the negative items may even be problematic because they seem to tap a number of already well-known toxic mechanisms that are likely to inflate the link with mental health problems.

The current meta-analysis was conducted to examine this latter notion empirically. A search in the literature yielded 18 studies that reported on the relations between the separate positive and negative subscales of the SCS or SCS-SF, on the one hand, and symptoms of psychopathology, on the other hand. The results first of all indicated that the positive indicators of self-compassion (i.e., self-kindness, common humanity and mindfulness) were negatively associated with psychopathology, which is of course in agreement with the protective nature of this self-related construct. However, the analysis also clearly demonstrated that the negative indicators of self-compassion (i.e., self-judgment, isolation and over-identification) were positively linked to psychopathology, suggesting that these scales tap increased vulnerability to mental health problems. In addition, tests comparing the strength of the relations between various SCS/SCS-SF counterparts (i.e., self-kindness versus self-judgment, common humanity versus isolation and mindfulness versus over-identification) and psychopathology showed that negative indicators were significantly stronger associated with mental health problems than the positive indicators. This provides support for the idea that the use of a total self-compassion score of the SCS or SCS-SF, which typically includes the reversely scored negative subscales, will probably result in an inflated link with symptoms of psychopathology.

In order to draw more definitive conclusions about the relative importance of various self-compassion components within the context of psychopathology, studies are needed that perform statistical analysis in which positive and negative subscales of the SCS or the SCS-SF are simultaneously considered as predictors of mental health problems. It is good to note that 6 of the 18 included studies in this meta-analysis conducted such an analysis (Bluth & Blanton, 2014; Iskender & Akin, 2011; Muris, *in press*; Van Dam *et al.*, 2011; Ying, 2009; Wasylikiw *et al.*, 2012). Although variations in statistical analyses used (structural equations modelling or regression analysis, either performed stepwise or including all predictors simultaneously) and methodology (i.e., some studies also controlled in the analysis for other relevant constructs) hinder a systematic comparison, a superficial inspection of these studies reveals some interesting findings. For the positive indicators of self-compassion, unique contributions were found for mindfulness (in 4 out of 6 studies) and self-kindness (in 2 out of 6 studies), whereas common humanity never emerged as an independent predictor (in 0 out of 6 studies). For the negative indicators, unique predictive value was found to be remarkably better: self-judgment, isolation and over-identification each showed

unique significant contributions in 4 out of 6 studies. This again suggests that the negative indicators of self-compassion have more predictive power in research on psychopathology than the positive indicators of this self-related construct. Further, of the positive indicators, in particular mindfulness and to a lesser extent self-kindness appear relevant, while the role of common humanity seems more marginal. The relative importance of mindfulness underlines the positive effects of this factor for people's psychological well-being (e.g., Hofmann, Sawyer, Witt, & Oh, 2010; Keng, Smoski, & Robins, 2011), although it should be noted that the SCS taps a somewhat different type of mindfulness (i.e., 'holding one's painful thoughts and feelings in balanced awareness rather than over-identifying with them'; Neff, 2003a, p. 89) than reported elsewhere in the psychological literature (e.g., Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006).

One could argue that the results of this meta-analysis are invalid due to the fact that only a limited number of studies of the existing literature were covered. That is, although many more articles exploring the link between self-compassion as indexed by the SCS or SCS-SF and psychopathology were found, the majority of them only reported on the results of the total score and thus had to be discarded. Note however that the present meta-analysis was conducted on a large sample ($n = 3802$) that included participants of various ages (i.e., adolescents, adults, elderly people), genders (i.e., males and females) and populations (i.e., clinical versus non-clinical), which of course increases the generalizability of the findings. Furthermore, it is also important to note that the overall effect size as computed for the relation between total self-compassion and psychopathology ($r = -0.53$) was almost identical to that reported in the meta-analysis performed by MacBeth and Gumley (2012) ($r = -0.54$), although the overlap between studies included in both meta-analyses was quite small (i.e., <15%).

With the results of the present meta-analysis in mind, a number of recommendations with regard to the assessment of self-compassion and research on its relation to psychopathology can be made. To begin with, our analysis indicates that it is not appropriate to compute a total score of the SCS or SCS-SF as such a procedure is likely to inflate the relationship between self-compassion and psychopathology, thereby overestimating the presumed protective role of this self-related construct in mental health problems. For those researchers who continue to use the SCS or the SCS-SF, it is strongly recommended to at least conduct an analysis in which the relative contributions of positive and negative indicators of self-compassion are weighed against each other. This advice is also applicable for clinicians who are not only interested in the protective components of self-compassion, but also want to know how their patients score on the negative items pertaining to self-judgment, isolation and over-

identification. However, if one is really interested in the protective nature of this construct, it seems most appropriate to discard the negative items from the questionnaire and to focus on the positive subscales of self-kindness, common humanity and mindfulness (see Muris, Meesters, Pierik, & De Kock, in press). This decision is also supported by a number of empirical findings. For example, a neuroimaging study by Longe *et al.* (2010) has demonstrated that self-reassurance (cf. self-kindness) and self-criticism (cf. self-judgment) are associated with activation of different brain areas, and thus each seems to have a distinct neural basis. Further, compassion-focused interventions have shown to specifically improve positive affect, but they do not appear to decrease negative affect more than other interventions (Klimecki, Leiberg, Lamm, & Singer, 2013; Odou & Brinker, 2014). These results underline the need to at least measure positive and negative processes independently (see also Cacioppo & Berntson, 1994).

Meanwhile, it also seems necessary to improve the assessment of self-compassion, and this could be achieved by either adjusting the items of the SCS/SCS-SF or by developing a whole new questionnaire. This critical point has to do with Neff's (2003a, 2003b) definition of self-compassion, which is rather unusual and unique. Most Buddhist, secular and dictionary definitions of compassion are linked to the capacities of being attentive to suffering and being motivated to do something to relieve or prevent it (Gilbert, 2009; Goetz, Keltner, & Simon-Thomas, 2010). This implies that compassion focuses on motivation above all as well as on competencies that enable that motivation to be enacted, which is an important element missing in Neff's (2003a, 2003b) definition. Although there is some evidence to suggest that self-compassion is indeed associated with self-improvement motivation (Breines & Chen, 2012), this element is not represented in the items of the SCS/SCS-SF. As a result, the three dimensions of self-kindness, common humanity and mindfulness as represented in the SCS/SCS-SF are not necessarily distinctive of compassion, but seem to tap a number of already known protective factors. For example, there is considerable work showing that mindfulness on its own promotes mental health (Hofmann *et al.*, 2010; Keng *et al.*, 2011), and—although less documented—this is also true for constructs such as belongingness (McLaren, Gomez, Bailey, & Van Der Horst, 2007; Yalom, 1985) and self-soothing (Castilho, Pinto-Gouveia, & Duarte, 2015; Gilbert, Clarke, Hempel, Miles, & Irons, 2004) which closely resemble Neff's (2003a, 2003b) dimensions of common humanity and self-kindness.

Altogether, the results of the present meta-analysis in combination with a number of theoretical considerations certainly call for an improvement and refinement in the assessment of the construct of self-compassion. There is some evidence indicating that not all of the self-

compassion components are equally important within the context of psychopathology (i.e., mindfulness and self-kindness seem to be more relevant than common humanity), but this issue certainly needs further exploration. This is also true for the relative importance of self-compassion as compared with other constructs that have been put forward in the positive psychology literature (e.g., self-esteem, self-efficacy, psychological flexibility). Further knowledge about the differential and unique contribution of various self-compassion components may also be helpful to define more clear-cut targets for treatment and as such contribute to the development of more effective interventions for individuals suffering from mental health problems.

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* Studies included in the meta-analysis.