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ORIGINAL PAPER

The Compassion Balance: Understanding the Interrelation of Self- and Other-Compassion for Optimal Well-being

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Abstract

Objectives This study examined the role of self-other harmony in the relations between self-compassion, other-compassion, and well-being. Past research has shown self- and other-compassion to be positively related. But we hypothesised that self-compassion can be perceived as incompatible with other-compassion, and that self-compassion and other-compassion might be uncorrelated or negatively correlated in daily life for some individuals. We termed this pattern lack of *self-other harmony* in compassion and hypothesised that it would undermine the benefits of compassion.

Method Using an experience sampling method in patients (n=154) with a variety of diagnoses, we measured self-compassion, other-compassion, life-satisfaction, mood, and contextual variables six times per day for 42 time points.

Results For most participants, self-compassion was positively associated with other-compassion. However, there was substantial heterogeneity in this effect. The degree of self-other harmony moderated the link between compassion directed towards self or other and well-being. Higher levels of compassion were associated with higher levels of well-being, but only for those who experienced the harmony. When the two forms of compassion were not in harmony, levels of self/other-compassion were largely unrelated to well-being.

Conclusions The findings emphasise the importance of personalised compassion interventions rather than a one-size-fits-all approach. Increasing self-compassion or other-compassion is likely to improve well-being for most people. However, for a minority lacking the self-other harmony, it may be necessary to assess their interpretation of self- and other-compassion, then work with them to promote the compassion balance optimal for their well-being.

Preregistration This study is not preregistered.

Keywords Compassion · Self-compassion · Well-being · Life-satisfaction · Mood · Experience sampling methods

Self-compassion reflects a non-critical and patient stance towards one's own shortcomings and suffering, driven by an authentic desire to help rather than harm oneself (Gilbert, 2009; Gilbert & Simos, 2022; Neff, 2003a). Past research has overwhelmingly reported a robust link between increased self-compassion and psychological well-being (Marsh et al., 2018; Phillips & Hine, 2021; Sirois et al., 2015; Zessin et al., 2015). Such research has spurred the rapid development and testing of standardised interventions, which seek to cultivate self-compassion universally (for a review, see Kirby et al., 2017). The conclusions about self-compassion from such studies, however, are all based on the average effect of self-compassion across groups of people. Is it safe to assume that increased self-compassion links to increased well-being for every individual? At least one study suggests that it is not: Baker and McNulty (2011) found that higher levels of female self-compassion predicted greater efforts to maintain and repair romantic relationships for women, yet male self-compassion manifested as greater selfishness when paired with low conscientiousness. Such findings suggest that the

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psychological effects of self-compassion may differ across individuals, context, and time (Ferrari et al., 2022).

What if, for some individuals, the link between self-compassion and well-being is weak, non-existent, or even negative? Here, we will refer to the degree of within-person correlation between changing self- and other- compassion as *self-other harmony*. A person has high self-other harmony to the extent that when self-compassion increases in a particular moment, other compassion also increases, and vice versa. Could self-compassion be a blessing amongst those high in self-other harmony, but inactive or even unhelpful amongst those with low self-other harmony (e.g. no correlation or negative correlation between self- and other-compassion)? We addressed these questions in the current study using an experience sampling method (ESM). ESM involves systematic self-report data, often using mobile devices, collected at multiple time points during daily life. We proposed that well-being would be affected by the extent to which within-person compassion for oneself (self-compassion) and compassion for others (other-compassion) were in harmony (i.e. increases in one led to increases in the other) in daily experiences.

Responding to our own inadequacies and flaws with gentle respect, positive regard, and support is a defining feature of practising self-compassion. According to Gilbert's (2009, 2014) model of emotion regulation, self-compassion is core to the soothing system, which is one of the three primary motivational systems, the other two being the threat and drive systems. The threat system is responsible for identifying potential harm and mobilising the body and attention to respond, and the drive system is responsible for motivating and directing us to needed resources. The soothing system helps balance the effects of other systems. Psychological disturbances are theorised to arise through an imbalance between these systems, often characterised by an underactive soothing system. Psychological intervention, which cultivates self-compassion, seeks to increase the accessibility of the soothing system, and restore balance (Gilbert, 2009; Gilbert & Simos, 2022).

An established body of research has linked higher levels of self-compassion with lower levels of psychopathology. Meta-analyses have found that lower self-compassion relates to greater anxiety and depression symptoms (MacBeth & Gumley, 2012), greater distress in adolescents (Marsh et al., 2018), increased eating disorder pathology (Turk & Waller, 2020), and suicidal thoughts and behaviours (Suh & Jeong, 2021). In addition to symptom reduction, self-compassion has also been linked with the cultivation of healthy psychological well-being and health-promoting behaviours (Brown et al., 2021; Phillips & Hine, 2021; Sirois et al., 2015; Zessin et al., 2015).

Self-compassion appears to be malleable and can be cultivated through psychological intervention. Such interventions result in significant improvements in processes and symptoms that are linked with psychopathology, including lower self-criticism (Leaviss & Uttley, 2015), lower depression, anxiety, and stress symptoms (Ferrari et al., 2019; Kirby et al., 2017), and less rumination and problematic eating behaviour (Ferrari et al., 2019). Taken together, these findings suggest that across large numbers of individuals, self-compassion is generally related to greater psychological well-being and less symptoms of psychopathology, and can also be cultivated through psychological intervention.

Most self-compassion research, like much of the broader psychological research, implicitly makes the psychological homogeneity assumption that individuals in a sample are homogeneous with respect to the psychological structures and processes underlying their observable behaviour (Richters, 2021). Self-compassion is assumed to have similar positive effects for all people in a sample. There is increasing evidence that the psychological homogeneity assumption (not to be confused with the statistical homogeneity assumption) is unlikely to be valid. One study found that group-level psychological processes often do a poor job of representing or predicting individual-level well-being (e.g. Hayes et al., 2022). Stated differently, the same processes do not necessarily drive well-being in the same way for all people. The alternative to making inferences about individuals from group estimates is to take an idionomic approach (Ciarrochi, Hayes, et al., 2022), which is defined as a method examining individual data first and only making group-based generalisation if it is consistent with or improves the individual level fit. This approach combines idiographic and nomothetic methods (hence, idionomic). It requires researchers to collect substantial data across time within-person, so that reliable individual models can first be estimated before shifting to the group level.

An idionomic approach can be embodied in the experience sampling method, which allows an individual as well as group focus in self-compassion research. Given self-compassion is a functional way of responding to life adversity and daily challenges, ESM offers unprecedented insight into the nature and function of self-compassion within the context of daily life. ESM has been applied to self-compassion in daily life in both clinical (Katan & Kelly, 2021) and community samples (Jazaieri et al., 2016; Thøgersen-Ntoumani et al., 2017). Katan and Kelly (2021) used a daily diary method to monitor self-compassion and eating pathology in women diagnosed with bulimia nervosa over 2 weeks. Between-persons analyses found higher daily self-compassion was associated with less dietary restraint and clinical impairment but was unrelated to binge eating and compensatory behaviours. In contrast, within-persons analyses found higher self-compassion related to lower levels of all four problematic symptoms. The psychological homogeneity assumption was not tested in this study. These findings emphasise the

importance of considering within-person variability using ESM, which allows a deeper investigation than cross-sectional group averages.

Single measurement items are often created by ESM researchers to capture key constructs whilst reducing participant burden. For instance, Jazaieri et al. (2016) measured self-compassion with a single item: "have you done anything kind or caring today for yourself", and included examples such as "complimented myself". The typical psychometric tests (e.g. alpha reliability statistic) are not possible with single items. Still, the fact that past studies using single items of self-compassion show meaningful results lend support to the validity of such measures.

Self-compassion is not the only form of compassion. Another aspect central to Gilbert's (2014) soothing system model is the experience of compassion towards others. Compassion towards others is related to empathy but does not necessarily require the experience of personal distress (or empathic distress) when others are suffering (Batson et al., 2015). Instead, other-compassion is akin to what has been termed empathic concern, which involves feelings of sympathy, warmth, and tenderness towards others, and has been shown to motivate altruism and other prosocial behaviours (Batson et al., 2015; FeldmanHall et al., 2015; Niezink et al., 2012).

Although inconsistent findings have been reported, the bulk of the evidence indicates that being compassionate towards others results in greater social connectedness, improved physical health, and better psychological well-being (Crocker et al., 2017; Curry et al., 2018; Neff & Seppälä., 2016). Recently, a handful of ESM studies have provided further support for the benefits of other-compassion (and its related constructs such as empathy) on well-being (Depow et al., 2021; Runyan et al., 2019; Steger et al., 2008). These ESM studies have also provided further insight into the complexities of the association. For example, Depow et al. (2021) conducted an ESM study to examine how different aspects of empathy affect well-being. As expected, other-compassion predicted *higher* well-being. However, empathy for negative emotions predicted *lower* well-being, particularly when participants reported personal distress and difficulties in being empathic. Likewise, Runyan et al. (2019) showed through an ESM study that compassion predicted both eudaimonic well-being and subsequent helping behaviours, but they also found an interaction between eudaimonia and feeling overwhelmed, such that for individuals with low eudaimonia, feeling overwhelmed predicted lower compassion. In other words, it appears that whilst other-compassion is beneficial, focusing on others can sometimes come at a cost to one's own well-being when it is accompanied by empathic distress and overidentification with the other person's suffering. Similar conclusions have also been noted in the compassion fatigue literature: purely focusing on others without caring for oneself can lead to burnout (Coetzee & Laschinger, 2018). These results speak to the importance of studying other-compassion and self-compassion together and examining how they interact to predict well-being. Although self- and other-compassion are often positively related (Hermanto & Zuroff, 2016), this may not occur for some people, which may negatively affect their well-being.

Clinicians and researchers have long recognised that a common fear of self-compassion is that it is selfish and detracts from other-compassion (Bayir & Lomas, 2016; Campion & Glover, 2017; Gilbert et al., 2011; Kirby et al., 2019; Neff, 2015). People may differ in the way they experience self-compassion and other-directed compassion: some may experience the two forms of compassion as complementary, but others may not experience them in tandem and may even experience them as oppositional at times (higher self-compassion may be associated with lower other-compassion, or vice versa), and yet others may experience self- and other-compassion as independent or unrelated.

The present study used ESM to test how heterogeneity in within-person associations between self- and other-compassion might affect the link between self-compassion and well-being. We did not expect self-compassion to be universally linked with higher well-being within persons. Specifically, we expected substantial heterogeneity in the overall positive association between self-compassion and well-being. Based on past research on the fear of self-compassion (Bayir & Lomas, 2016; Campion & Glover, 2017; Gilbert et al., 2011; Kirby et al., 2019; Neff, 2015), we expected some people to experience self- and other-compassion as not related or even oppositional, in that they may see self-compassion as selfish or opposed to compassion to others. When self- and other-compassion are not in harmony, we expected that the link between self-compassion and well-being to be weakened. In contrast, others may experience compassion towards the self and others as complementary. For these people, we hypothesised the strongest links between self-compassion and well-being: If what is good for you is also good for others, then doing good for yourself is likely to be especially rewarding.

Our first hypothesis related to the degree of self-other harmony and the implications for well-being was as follows: self-compassion and compassion towards others will be in harmony for some people. It is a popular belief that loving oneself or being compassionate towards oneself is important for loving others (Campbell & Baumeister, 2001; Ricard, 2015). Compassion towards self and others is increasingly recognised as interlinked given that a compassionate response is rooted in insights into self-other interdependence rather than unhealthy attachments to others or excessive self-cherishing (Ciarrochi et al., 2020; Sahdra et al., 2015, 2016; Sahdra & Shaver, 2013). Such a wise compassionate stance makes no distinction in one's own or other's suffering (His Holiness the Dalai Lama, 2002; Vreeland, 2001).

A compassionate person moves to relieve suffering, not *my* suffering or *your* suffering. Self- and other-compassion has been found to be related amongst Masters-level counselling students (Fulton, 2018), and this association is stronger for practising Buddhist meditators than for community adults or college students (Neff & Pommier, 2013). Research by Fuochi et al. (2018) with Italian adults showed that certain components of self-compassion—common humanity, and acknowledgement of one's suffering as shared with all humans—were positively linked with empathy, perspective taking and empathic concern, and positive outgroup attitudes. Given that self-compassion involves a recognition of suffering as a universal human condition, it makes sense to hypothesise that self-compassion may promote other-compassion towards others (Hofmann et al., 2011), at least for some people.

Our second hypothesis was that self-compassion and compassion towards others will be independent for some people. Gilbert explicitly recognises different 'flows' of compassion, towards oneself, towards others, and receiving from others (Gilbert et al., 2011, 2017). Theoretically, this conceptualisation of the flows of compassion suggests they are distinct constructs which could be unrelated for some. For instance, in a longitudinal study using adolescents by Marshall et al. (2020), empathy, rather than self-compassion, predicted prosocial behaviour, although self-compassion did not predict less prosociality. No association between self-compassion and forms of other-compassion has been reported in generally healthy community samples, including US undergraduates (Neff, 2003a, b), UK undergraduates (Stoeber et al., 2020), Dutch adults (Lopez et al., 2018), and Israeli adults (Gerber et al., 2015), although in one of the studies by Gerber et al. (2015) higher self-compassion was positively linked with lower avoidance of social situations and lower rejection sensitivity but higher caregiving avoidance. Given the mixed findings in past research regarding the link between self-compassion and other-compassion, one might hypothesise that self and other-compassion are independent for at least some people.

Finally, our third hypothesis was that self-compassion and compassion towards others will be in discord for some people. At least for some people, the link between self- and other-compassion can be non-complementary. Research suggests that some people may fear self-compassion because they worry that self-compassion is selfish, is undeserved, and may cause others to reject them (Gilbert et al., 2011). In addition, people often fear giving compassion to others, because such compassion may be personally draining and lead people to take advantage of you (Gilbert et al., 2011). This hints at the possibility that for some people, self- and other-compassion may not be complementary and may instead be viewed as a zero-sum game. The more people experience this in daily life, the more self-compassion will seem to come at a cost to other-compassion and vice versa. Such non-complementarity between self- and other-compassion may have a negative impact on well-being.

In sum, the objective of this study was to examine the role of self-other harmony in the relations between self-compassion, other-compassion, and well-being. Although past research (reviewed above) has shown self- and other-compassion to be positively related, our aim was to examine the heterogeneity of this association and its consequences for individuals' well-being. We hypothesised that self-compassion can be perceived as incompatible with other-compassion, and that self-compassion and other-compassion might be uncorrelated or negatively correlated in daily life for some individuals. We termed this pattern lack of self-other harmony in compassion and hypothesised that it would undermine the benefits of compassion.

Method

Participants

Participants were transdiagnostic patients, who were a part of the Choose Change effectiveness trial for outpatients and inpatients chronically suffering from a range of mental disorders and psychological problems (Gloster et al., 2023). There were 200 patients in total but not all participants completed all measures. Self-compassion experience sampling data were available from 154 participants and baseline trait measures data were available from 140 participants. In the experience sampling data, 53% of the participants were female and 47% males; 47% were inpatients and 53% outpatients. Age ranged from 18 to 64 years (M=35.41; SD=11.42). Regarding primary diagnosis, 29.53% of the participants had depressive disorder, 39.38% anxiety disorder, 20.21% OCD, 2.59% adjustment disorder, 4.15% somatoform disorder, 1.04% substance abuse disorder, and 3.11% other. Of the participants, 30.90% had no comorbid diagnosis, 36.52% had one, 20.22% had two, and 12.36% had 3 comorbid diagnoses.

Procedure

Following intake and informed consent procedures, patients completed a baseline assessment consisting of a diagnostic interview and standardised questionnaires. Patients then engaged in a 1-week ESM using a study-issued smartphone and answering questions regarding their mood, cognitions, and behaviours. The ESM sampled six times daily for a total of 42 time points during the ESM week. The morning sampling was briefer than the rest of the prompts. As a result, some constructs were assessed only five times per

day. For further details on the methodology, see Villanueva et al. (2019).

Measures

Trait and State Self-compassion and Compassion Towards Others The trait compassion measures had the instructions: "These questions refer to your experiences of the past seven days". The items were "I am tolerant, benevolent, and caring with myself", and "I am tolerant, benevolent, and caring with others". The response scale ranged from 1 (*very often*) to 5 (*very seldom*). For the ESM (state) versions of the compassion measures, the stem of the items was altered such that participants responded about "the last three hours". Therefore, the state items intended to be sensitive to changes within a day. The ESM self- and other-compassion items were worded as follows: "Since the last prompt… I looked at myself with tolerance, good will, and care" and "I looked at others with tolerance, good will, and care", respectively. Participants responded to the items using a slider ranging from 0 (*not at all*) to 100 (*very much*). Trait items were reversed scored so that higher scores indicated higher levels of compassion, similar to the scale of the ESM measures.

Reliability of each state measure was estimated from intraclass correlation coefficient-2 or *ICC*(2) from a one-way analysis-of-variance model. This form of *ICC* in the context of an ESM study represents the reliability of within-person means, and is different from *ICC*(1), which represents the amount of variance in the outcome that is between persons (Bliese, 2000). For self-compassion, the *ICC*(1) was 0.67 (95% *CI*: 0.62, 0.72), suggesting that 66% of the variance in state self-compassion was within-persons. Regarding reliability of the measure, the *ICC*(2) was 0.98 (95% *CI*: 0.97, 0.98). For other-compassion, the *ICC*(1) was 0.56 (95% *CI*: 0.50, 0.62) and *ICC*(2) was 0.97 (95% *CI*: 0.96, 0.97). Therefore, both state self-compassion and other-compassion were highly reliable.

Well-Being Measures

Trait and State Life-Satisfaction Subjective well-being measurement literature focuses on many facets of positive functioning (e.g. see Marsh et al., 2020). However, multidimensional measures are not suitable for an EMA study because of the high response burden on participants. In the broadest sense, well-being indicates our subjective judgement about how well our life is going, which can be assessed using a single question about life-satisfaction. This simple approach goes as far back as Cantril (1965) and remains popular amongst many scholars (e.g. Clark et al., 2018).

In our study, trait life-satisfaction measure referred to participants' experiences of the past 7 days. Participants responded to the item "I am heading in the right direction in life" using a scale ranging from 1 (*very often*) to 5 (*very seldom*). The measure was reversed scored so that higher numbers indicated higher levels of life-satisfaction. The state measure asked participants to respond to the item to indicate their experience since the last prompt. The item "In life I am/was heading in the right direction" had a slider response scale ranging from 0 (*not at all*) to 100 (*very much*). The *ICC*(1) for state life-satisfaction was 0.71 (95% *CI*: 0.66, 0.75) and *ICC*(2) reliability estimate was 0.98 (95% *CI*: 0.97, 0.99).

State Mood Participants' current mood was evaluated using the item "How would you rate your current mood?". The response scale ranged from 0 (*very bad*) to 5 (*very good*). The *ICC*(1) was 0.43 (95% *CI*: 0.37, 0.49) and *ICC*(2) reliability estimate was 0.95 (95% *CI*: 0.94, 0.96).

Contextual Variables

Participants were asked: "Please think of how you've spent your time since the last prompt. What has been most important to you?". Participants were asked to indicate their response using one of the options provided. Of the participants' responses regarding the most important activity since the last prompt, 16.96% were enjoy/relax, 15.11% contact with other people/conversation, 14.52% work/school, and the remaining various other activities (see Table S1 in Supplementary Information for the counts and percentages of responses of each category). Regarding the most important task they selected, participants were asked: "…did you find it positive?", "…did it overwhelm you?", "…did you actually want to spend your time in this way?" and "…is it in line with the way you want to live your life?". Participants indicated their responses to these items using a slider from 0 (*not at all*) to 100 (*very much*).

Data Analyses

Analyses were conducted in R 4.2.2 (R Core Team, 2022). Data files and the analysis R script are available on Open Science Framework (https://osf.io/phvrx/?view_only=649acca8fe1a4ff1bc82f974dc0c8868). In the experience sampling data, observations were nested within participants, so multilevel models were used to account for non-independence of observations. Multilevel modelling provides a principled approach to missing data that uses all available information for estimating parameters (Baraldi & Enders, 2010). In addition to the trait measures of self-compassion and compassion towards others, we calculated the mean of the observations across all time points within persons to examine the associations between trait and mean state measures of the two forms of compassion.

To establish a self-other harmony score for each person, raw within-person correlations were examined in addition to multilevel models of state self-compassion predicting state other-compassion. The within-person correlations of state self-compassion and other-compassion represented the degree to which self and other-compassion were in discord (negative correlation), independent (unrelated), or in harmony (positive correlations). These three categories are merely heuristic and helped in data exploration. A continuous variable of within-person correlations was used in subsequent models predicting well-being variables (state life-satisfaction and state mood) to see if the correlation moderated the effect of state compassion on the outcome. The respective trait compassion variables were used as covariates to account for the trait levels whilst examining the effects of the state versions of the compassion measures on the outcomes.

We ran three core models: two models testing the interaction of state compassion (self- and other-compassion in separate models) with the within-person correlations, and a third model testing an interaction of the state self-compassion and state other-compassion, controlling for the trait levels of both types of compassion. The first two core models tested the differences in the links between compassion and the outcome amongst those for whom self-compassion and other-compassion were in discord relative to those for whom the two forms of compassion were in harmony. The third core model tested the differences in experiences of the same people in moments when compassion towards the self and others were in discord compared to moments when they were in harmony. Several sensitivity models were conducted to test the robustness of the interaction effects in the three core models. These included the use of the mean state score instead of the trait score as a covariate in the models, moderation of the interaction effects by clinical type (inpatient vs. outpatient), the use of the contextual variables as covariates, moderation of the interaction effects by gender, and moderation by age.

Results

Descriptive Statistics

Means, standard deviations, reliabilities, and correlations between trait and mean state measures of self-compassion, other-compassion, life-satisfaction, and mood can be found in Table 1. Mean state measures were averages of state measures by person. Both trait and mean state measures of self-compassion and other-compassion were positively correlated with trait and mean state measures of life-satisfaction and mean state mood. Not surprisingly, correlations of trait and mean state measures of the same constructs (highlighted in grey in Table 1) were stronger than the correlations of trait and mean state measures of different constructs. For instance, trait self-compassion correlated more strongly with the mean of state self-compassion than with the mean of state other-compassion. Whilst trait other-compassion did not correlate with the mean of state self-compassion, trait self-compassion correlated with the mean

Table 1 Sample size, means, standard deviations, reliabilities, and correlations with confidence intervals

Variable	*n*	*M*	*SD*	1	2	3	4	5	6
1. TSC	140	2.90	1.13						
2. TOC	140	4.29	0.75	0.03					
				[−0.13, 0.20]					
3. TLS	140	3.33	0.98	0.35**	0.18*				
				[0.20, 0.49]	[0.02, 0.34]				
4. MSC	154	57.43	21.29	**0.60****	0.02	0.37**			
				[0.48, 0.70]	[−0.15, 0.19]	[0.22, 0.51]			
5. MOC	154	74.92	16.84	0.21*	**0.45****	0.33**	0.36**		
				[0.05, 0.37]	**[0.31, 0.58]**	[0.18, 0.47]	[0.21, 0.49]		
6. MLS	154	63.69	20.73	0.35**	0.20*	**0.59****	0.64**	0.57**	
				[0.20, 0.49]	[0.03, 0.35]	**[0.46, 0.69]**	[0.54, 0.73]	[0.46, 0.67]	
7. MM	154	3.08	0.72	0.38**	0.19*	0.53**	0.65**	0.48**	0.73**
				[0.23, 0.52]	[0.02, 0.34]	[0.40, 0.64]	[0.55, 0.73]	[0.35, 0.59]	[0.65, 0.80]

M and *SD* are used to represent mean and standard deviation, respectively. Reliabilities of state measures were calculated using *ICC*s. Mean state measures were calculated by averaging by person. Values in square brackets indicate the 95% confidence interval for each correlation. *TSC* trait self-compassion, *TOC* trait other compassion, *TLS* trait life-satisfaction, *MSC* mean of state self-compassion, *MOC* mean of state other compassion, *MLS* mean of state life-satisfaction, *MM* mean of state mood. Bold text indicates correlations are between trait and averaged state measures of the same construct

*$p < 0.05$; **$p < 0.01$

of state other-compassion. Trait self-compassion and trait other-compassion were unrelated, but the mean state self-compassion and the mean of state other-compassion were positively related. The pattern of correlations indicates that the trait and state versions of a given measure capture related but distinct constructs. This highlights the importance of using experience sampling for studying compassion. It also suggests the need to use the trait measure of self/other-compassion as a covariate in the models below that use the state versions of the same measure as a predictor of the outcomes.

Compassion Towards Self and Others: Discordant, Independent, or Harmonious

We hypothesised that self- and other-compassion may be discordant for some people, independent for others, and harmonious for yet others. Preliminary exploration of our hypotheses involved examining within-person raw correlations of moment-to-moment self-compassion and other-compassion. These raw correlations had a mean of 0.37 (*SD*=0.39; range: −1 to 1). We analysed differences in correlations as a continuous variable in the main analysis, but also categorised variables to generate descriptives of individuals for whom self- and other-compassion were either discordant, independent, or harmonious. We operationalised these three categories using the cut-offs of −0.10 to 0.10 such that individuals with correlations equal to or below −0.10 were classified as discordant (*n*=19), those with correlations between −0.10 to 0.10 had the two forms of compassion as independent (*n*=15), and those with correlations equal to or greater than 0.10 had the two forms of compassion as harmonious (*n*=115). Table S2 in Supplementary Information reports further details of the descriptive statistics of the correlations in these three groups. Figure S1 shows the plots of the raw correlations between moment-to-moment self- and other-compassion of each person in each of the three groups. The three categories were used primarily for exploring the raw data but were not used in any statistical models.

Generally, there are three possible approaches for examining the association between two variables in an experience sampling study: (1) examining individual within-person associations separately for each person, as we did above, which amounts to *no pooling* of effects; (2) examining the associations between the two variables in the entire sample ignoring individual clustering, which results in *complete pooling* of effects; and (3) *partial pooling* of effects in a multilevel modelling, which is generally seen as a preferred option for nested data (Gelman & Hill, 2007). Our preliminary analysis reported above involves no pooling of effects as the goal was to focus on the heterogeneity of raw within-person associations. This approach is not suitable for deriving nomothetic (group-level) insights because no-pooling ignores within-person clustering. In our data, as mentioned in the method section, the *ICC*(1) for self-compassion and other-directed compassion was 0.67 (95% *CI*: 0.62, 0.72), and 0.56 [0.50, 0.62], respectively. An *ICC*(1) indicates the total amount of variance in the variable attributable to between persons rather than within persons. Values higher than 0 indicate that the observations are non-independent. Multilevel modelling is generally a preferred choice in such cases because it takes clustering into account. However, as we will show below, multilevel modelling is problematic if we care about using group-level insights to generate insights about how best to help specific individuals, which is the primary goal of practitioners.

We compared two multilevel models testing the association between self-compassion and other-compassion: one with varying intercepts (differences in initial levels of other-directed compassion) but fixed slopes (assuming similar associations between self- and other-compassion across the sample), and another model in which both the intercepts and slopes were allowed to vary. The log-likelihood ratio test indicated that the model in which both the intercepts and slopes varied fit the data better than the model in which the slopes were constrained to be fixed across all individuals: χ^2_{diff} (2) = 194.74, p<0.001. The fixed effect estimate of self-compassion predicting other-compassion in the model with varying intercepts and slopes was 0.41 [95% *CI*: 0.34, 0.49]. Further details of the standardised fixed and random estimates from this model are reported in Table S3. The fixed effect of self-compassion linking to other-compassion was not moderated by clinical sample type (inpatient vs. outpatient), as evident by a statistically non-significant interaction of self-compassion and patient type reported in Table S3.

Figure S2 shows the multilevel-model implied individual associations in the data with red lines indicating positive associations and blue lines indicating negative associations. This plot of individual intercepts and slopes shows only two people with a negative model-implied association, but our preliminary analyses of the raw within-person correlations showed that at least 19 individuals had negative within-person correlation between self- and other-compassion. Most of the people in the overall sample (*n*=115) showed positive within-person raw correlations between self and other-compassion, so naturally they contributed substantially to the group-level fixed effect estimate in the multilevel model.

Linking Self-Other Harmony To Well-being

Compassion for self and others are generally regarded as conducive for well-being. However, if some people experience the two forms of compassion as independent or discordant in their daily life experiences, promoting compassion for self or others might have less benefit to their well-being. At

best, it might be inert for their well-being, and at worst, it might decrease their well-being. To test these ideas, we ran separate models predicting state life-satisfaction and mood.

Life-satisfaction Models

Models 1a, 2a, and 3a in Table 2 were the core models for predicting state life-satisfaction. Model 1a tested for an interaction of state self-compassion with the correlation of state measures of self- and other-compassion. As was discussed earlier, we added trait self-compassion as a covariate to control for the variance in the outcome due to the trait measure. Model 2a tested for an interaction of state other-compassion with the correlation of state self- and other-compassion, controlling for trait other-compassion. Model 3a tested for an interaction of state self-compassion and state other-compassion, controlling for trait measures of compassion for self and others. Models 1a and 2a tested between-persons effects—differences in the links between compassion and life-satisfaction amongst those with a negative correlation between the two forms of compassion relative to those with a positive correlation. Model 3a tested within-person effects—differences in experiences of the same people in moments when compassion towards the self and others were independent/discordant compared to moments when they were harmonious. As shown in Table 2, all three interaction effects were statistically significant.

The interaction effect of Model 1a is plotted in the top panel of Fig. 1. The association between state self-compassion and state life-satisfaction were generally positive, except for those for whom compassion towards self and others were independent/discordant. For these individuals, increasing self-compassion may not benefit life-satisfaction. The interaction effect of Model 2a is plotted in the bottom panel of Fig. 1. Compassion towards others was positively associated with state life-satisfaction for those with self-other harmony, but it was negatively linked with life-satisfaction amongst those for whom compassion towards the self and others were independent or discordant. For the latter individuals, attempts to increase compassion towards others will likely not benefit their life-satisfaction.

As reported in Table 2, the interaction effect of Model 3a was very small (−0.03). In moments when people experience low state self-compassion, their life-satisfaction was lower if they also experienced low other-compassion relative to moments when they experienced high compassion for others. Similarly, in moments when people experienced low compassion for others, their life-satisfaction was lowest when they felt lowest compassion for themselves and highest when they felt highest compassion for themselves.

Table 2 Standardised estimates of fixed effects and random effects from multilevel models predicting state life-satisfaction

Predictors	Model 1a			Model 2a			Model 3a		
	Estimates	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	−0.07	−0.19 to 0.04	0.211	−0.04	−0.16 to 0.09	0.552	−0.04	−0.14 to 0.06	0.461
TSC	0.06	−0.06 to 0.18	0.303				0.07	−0.03 to 0.18	0.152
Cor	0.06	−0.07 to 0.18	0.389	0.23	0.09 to 0.36	**0.001**			
SC	0.45	0.42 to 0.48	**<0.001**				0.38	0.36 to 0.41	**<0.001**
Cor × SC	0.10	0.06 to 0.13	**<0.001**						
TOC				0.12	0.00 to 0.25	**0.047**	0.10	−0.00 to 0.20	0.052
OC				0.32	0.29 to 0.34	**<0.001**	0.18	0.15 to 0.20	**<0.001**
Cor × OC				0.16	0.13 to 0.19	**<0.001**			
SC × OC							−0.03	−0.04 to −0.01	**0.007**
Random effects									
σ^2	0.21			0.24			0.20		
τ_{00}	0.45			0.50			0.35		
ICC	0.68			0.68			0.64		
n	132			132			137		
Observations	3135			3135			3140		
Marginal R^2 / conditional R^2	0.270/0.766			0.193/0.741			0.341/0.760		

TSC trait self-compassion, *Cor* within-person correlation of state self-compassion and state other-directed compassion, *SC* state self-compassion, *OC* state other-directed compassion, *TOC* trait other-directed compassion, σ^2 variance of the residual, τ_{00} variance of the intercept, *ICC* intra-class correlation; *n* = sample size; *CI* = 95% confidence interval

Bold values indicated statistical significance, i.e., $p < 0.05$

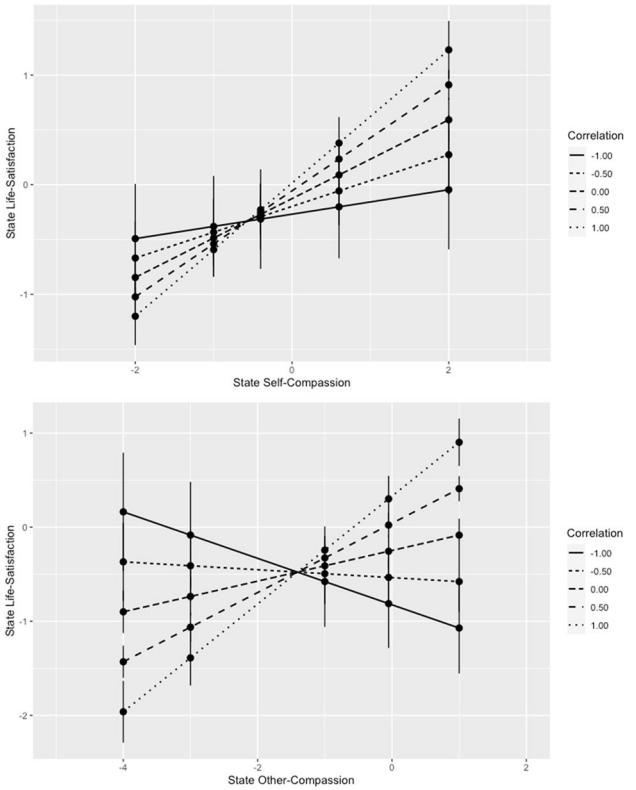

Fig. 1 An interaction of state self-compassion with the correlation of state self- and other-compassion (top panel; Model 1a) and an interaction of state other-compassion with the correlation predicting state life-satisfaction (bottom panel; Model 2a). Note: The correlation variable represents within-person correlations between state self-compassion and state other-compassion, indicating the degree of harmony (positive correlation) or discord (negative correlation) between the two forms of compassion that is generally experienced by different individuals

To test the robustness of the interaction effects of the three core models, we ran several additional models. Models 1b, 2b, and 3b in Table S4 of Online Supplementary materials show that the interaction effects were virtually unchanged when we used the mean of state measures of compassion instead of their trait versions. Models 1c, 2c, and 3c in Table S5 of Supplementary Information show that the core interaction effects of Models 1a, 2a, and 3a were not moderated by the type of clinical patient (inpatient vs. outpatient). That is, the interaction effects were true for both inpatients and outpatients. The interaction of state self-compassion and other-compassion was non-significant in Model 3c, suggesting that the (small) interaction effect of Model 1c was probably not reliable. Next, Models 1d, 2d, and 3d in Table 3 show that the interaction effects were largely comparable to the effects in the core models (in Table 2), even after controlling for several contextual variables of how participants felt about the most important thing that occupied their time since the last prompt. Models 1e, 2e, and 3e (Table S8 in Supplementary Information) show that the core interaction effects were not moderated by gender. But note that the interaction of state self-compassion and state other-compassion was non-significant in Model 3e. Finally, Models 1f, 2f, and 3f (Table S9) show that the interaction effects in the three core models were not moderated by age either, but again the interaction of state self-compassion and state other-compassion in Model 3f was non-significant, calling into question the reliability of this interaction effect in the core Model 3a.

Mood Models

As shown in Table 4, Models 4a, 5a, and 6a were the core models predicting state mood. The interaction effects were statistically significant for Models 4a and 5a; however, they were not statistically significant for Model 6a. The interaction effect of Model 4a is shown in Fig. 2 top panel: state self-compassion was positively associated with state mood, but this association was not significant for those who experience self-other compassion as independent or discordant with compassion towards others. Regarding the interaction effect of Model 5a, the bottom panel of Fig. 2 shows that state compassion towards others was positively linked with state mood for individuals with self-other harmony, but negatively linked for others. Model 6a showed two main effects of compassion towards self and others: these two aspects of compassion independently and positively predicted state mood. However, the interaction between the two was statistically non-significant.

Additional models showed that the core findings in Models 4a, 5a, and 6a did not change when we used the mean state compassion measure instead of the trait measures (see Models 4b, 5b, and 6b in Table S6 in Supplementary Information). The core interaction effects in Models 4a and 5a were not moderated by clinical sample type of inpatient vs. outpatient (Models 4c and 5c in Table S7 in Supplementary Information). As reported in Table 5, the two core interaction effects were robust in the models controlling for contextual variables (Models 4d and 5d). Tests of moderation by gender and age were also conducted. Models 4e and 5e (Table S10) show gender did not moderate the interaction effects. Age also did not moderate the interaction effects, as shown in Models 4f and 5f (Table S11).

Discussion

We began our investigation by examining the within-person associations between state self-compassion and other-compassion. There was substantial heterogeneity in those within-person associations. This was evident in the raw correlations between the two forms of state compassion within individuals. Further, a multilevel model of state self-compassion

Table 3 Standardised estimates from multilevel models predicting state life-satisfaction, controlling for contextual variables

Predictors	Model 1d			Model 2d			Model 3d		
	Estimates	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	−0.06	−0.17 to 0.05	0.283	−0.03	−0.15 to 0.08	0.577	−0.03	−0.13 to 0.06	0.490
TSC	0.08	−0.03 to 0.19	0.141				0.09	−0.00 to 0.19	0.061
Cor	0.06	−0.06 to 0.18	0.338	0.20	0.08 to 0.33	**0.001**			
SC	0.37	0.34 to 0.39	**<0.001**				0.32	0.29 to 0.35	**<0.001**
IP	0.06	0.04 to 0.09	**<0.001**	0.07	0.05 to 0.10	**<0.001**	0.05	0.03 to 0.08	**<0.001**
IO	0.01	−0.01 to 0.03	0.253	0.00	−0.02 to 0.02	0.989	0.01	−0.01 to 0.03	0.297
II	0.15	0.12 to 0.18	**<0.001**	0.17	0.14 to 0.20	**<0.001**	0.15	0.12 to 0.18	**<0.001**
IW	−0.01	−0.04 to 0.02	0.656	−0.01	−0.04 to 0.02	0.466	−0.01	−0.04 to 0.02	0.422
Cor × SC	0.07	0.03 to 0.10	**<0.001**						
TOC				0.12	0.01 to 0.23	**0.036**	0.10	0.00 to 0.19	**0.049**
OC				0.24	0.21 to 0.26	**<0.001**	0.14	0.11 to 0.16	**<0.001**
Cor × OC				0.13	0.10 to 0.15	**<0.001**			
SC × OC							−0.02	−0.04 to −0.01	**0.007**
Random effects									
σ^2	0.19			0.21			0.19		
τ_{00}	0.39			0.42			0.32		
ICC	0.67			0.67			0.63		
n	132			132			137		
Observations	3135			3135			3140		
Marginal R^2 / conditional R^2	0.326/0.777			0.257/0.755			0.383/0.774		

TSC trait self-compassion, *Cor* within-person correlation of state self-compassion and state other-directed compassion, *SC* state self-compassion, *TOC* trait other-directed compassion, *OC* state other-directed compassion, *ICC* intra-class correlation; *IP* = most important thing spent time on since last prompt—found positive; *IO* = most important thing—found overwhelming; *II* = most important thing—in line with the way wanted to live life; *IW* = most important thing—wanted to spend time this way; σ^2 = variance of the residual; τ_{00} = variance of the intercept; *n* = sample size; *CI* = 95% confidence interval

Bold values indicated statistical significance, i.e., $p < 0.05$

predicting other-compassion in which both intercepts and slopes were allowed to vary fits the data better than a model in which intercepts were allowed to vary but the slopes were constrained to be fixed to the average effect. Not surprisingly, state self-compassion was positively associated with state other-compassion at the group level. However, the multilevel model, even with random intercepts as well as random slopes, produced individual estimates that were shrunk to the group-level fixed effect estimate such that individuals who showed raw negative within-person association between self and other-compassion were *absorbed* in the overall group-level positive effect. Shrinkage of individual effects to group estimates is a necessary feature of multilevel modelling (Gelman & Hill, 2007), and normally it is not an issue if the goal is to generate nomothetic (group-level) insights. Whether we look at raw associations or multilevel model results, on average and for most people in the data, moment-to-moment experiences of compassion towards self and others were in harmony (positively correlated).

However, the group-level effect does not characterise the lived experiences of those in the data who deviated from the average effect. Understanding either form of compassion as a process of change requires individual-level data about the process. Using the nomothetic insight, we gain no actionable information about individuals where compassion towards themselves and compassion towards others are discordant in their moment-to-moment experiences. Our goal was to examine whether the differences in the links of self- and other-compassion amongst individuals might have implications for how their experiences of self/other-compassion link to their well-being. Therefore, rather than ignoring the heterogeneity in the within-person associations of self- and other-compassion, we explicitly modelled it to understand how self-other harmony links to participants' well-being.

Specifically, we ran models predicting well-being outcomes of state life-satisfaction and state mood using an interaction of state self/other-compassion with the within-person correlation of state self- and other-compassion. The within-person correlation represented the degree of harmony

Table 4 Standardised estimates of fixed effects and random effects from multilevel models predicting mood state

Predictors	Model 4a			Model 5a			Model 6a		
	Estimates	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	−0.04	−0.13 to 0.06	0.457	0.01	−0.09 to 0.12	0.815	0.01	−0.07 to 0.10	0.768
TSC	0.01	−0.09 to 0.10	0.880				0.01	−0.07 to 0.10	0.745
Cor	0.06	−0.05 to 0.16	0.279	0.22	0.10 to 0.34	**<0.001**			
SC	0.51	0.47 to 0.55	**<0.001**				0.42	0.38 to 0.47	**<0.001**
Cor × SC	0.14	0.09 to 0.19	**<0.001**						
TOC				0.04	−0.06 to 0.15	0.430	0.04	−0.05 to 0.12	0.403
OC				0.38	0.34 to 0.42	**<0.001**	0.23	0.19 to 0.27	**<0.001**
Cor × OC				0.17	0.12 to 0.21	**<0.001**			
SC × OC							−0.02	−0.04 to 0.01	0.267
Random effects									
σ^2	0.48			0.51			0.47		
τ_{00}	0.28			0.35			0.23		
ICC	0.36			0.41			0.33		
n	132			132			137		
Observations	3135			3135			3140		
Marginal R^2 / conditional R^2	0.263/0.530			0.185/0.519			0.308/0.538		

TSC trait self-compassion, *SC* state self-compassion, *OC* state other-directed compassion, *TOC* trait other-directed compassion, *ICC* intra-class correlation; *Cor* = within-person correlation of state self-compassion and state other-directed compassion; σ^2 = variance of the residual; τ_{00} = variance of the intercept; *n* = sample size; *CI* = 95% confidence interval

Bold values indicated statistical significance, i.e., $p < 0.05$

of the two forms of compassion in different individuals in the sample. Higher levels of self-/other-compassion were associated with positive well-being outcomes, but only for those who generally experienced self-other harmony. For those who experienced the two forms of compassion as independent (no correlation) or discordant (negatively correlated), levels of self/other-compassion were largely unrelated to well-being outcomes. For these individuals, being more compassionate may produce little benefit to their well-being. This finding argues against a one-size-fits-all approach of promoting self/other-compassion. It also illustrates the problem of considering psychological processes like self-compassion in isolation from other relevant processes such as other-compassion. We need to understand how both forms of compassion interrelate within those we study and the people we serve clinically.

Our study is not an intervention study; thus, clinical implications are speculative. Nevertheless, our results support the value of a personalised approach to interventions that uses compassion as a lever to improve well-being (Hayes et al., 2022). For most people, when self- and other-compassion are harmonious, increasing either is likely to be beneficial. However, when self- and other-compassion are independent or discordant, it might be essential to explore clients' interpretations of self- and other-compassion. Do clients have mistaken beliefs about compassion, such as believing that self-compassion is always selfish? Do they experience lack of balance in self- and other-compassion, such as living in a context where they feel unable to care for the self and another at the same time? Are there individual differences in the causes of self-other discord? For example, discord could occur if a person is highly self-critical but cares for others, or it could occur if a person holds anger towards others but be uncritical of themselves. Thus, the source of self-other discord may substantially differ between people.

The idea that self-other harmony can be used to guide therapy should be tested, of course. Our study shows the potential diagnostic value of self-other harmony, which is a necessary first step for a future study testing the treatment utility of the measure of self-other harmony in interventions (Ciarrochi et al., 2015). There is clear evidence in our data that individuals who have a highly positive within-person association between state self- and other-compassion have the highest well-being in moments when they experience high state self-/other-compassion. This finding is also consistent with a model predicting life-satisfaction in which we ignored the correlation variable and instead tested an interaction of state self-compassion and state other-compassion. This allowed us to focus on the differences in experiences of the same people in moments when self- and other-compassion were low in harmony relative to moments when

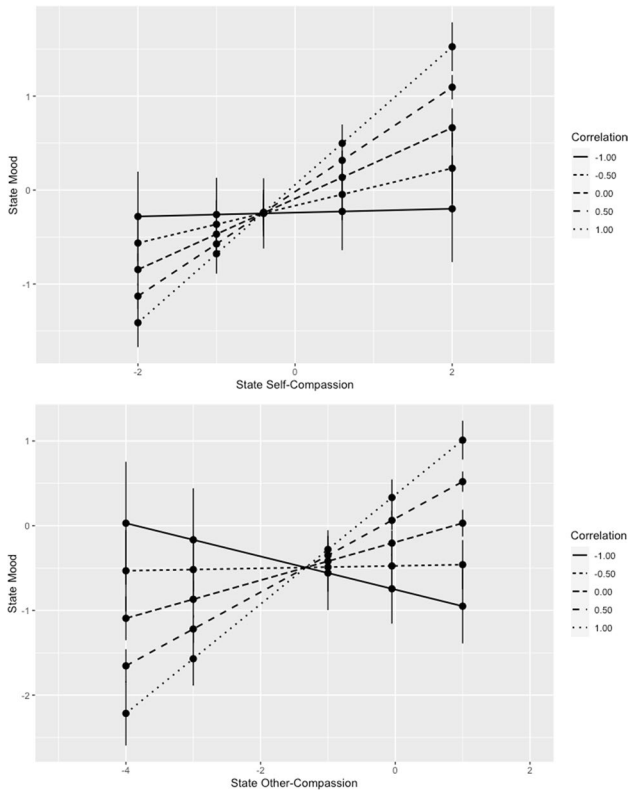

Fig. 2 An interaction of state self-compassion with the correlation of state self- and other-compassion (top panel; Model 4a) and an interaction of state other-compassion with the correlation predicting state mood (bottom panel; Model 5a). Note: The correlation variable represents within-person correlations between state self-compassion and state other-compassion, indicating the degree of harmony (positive correlation) or discord (negative correlation) between the two forms of compassion that is generally experienced by different individuals

they were more harmonious. People had the highest level of life-satisfaction when they experienced high state self-compassion as well as other-compassion. Because this normative finding underestimates idiographic patterns, it would be a mistake to rely on this finding and seek to increase self/other-compassion in all individuals to increase their well-being. Also, the interaction of state self-compassion and other-compassion was a small effect for life-satisfaction and statistically non-significant for mood. It was not as reliable as the interactions of self/other-compassion with the correlation variable, which were robust in all sensitivity models.

When considering the effect of a process of change, such as self-compassion on an individual's well-being, researchers and practitioners need to consider that process in the context of a wider network of processes and not in isolation. This calls for further research using relevant processes of change to examine the relative importance of those processes for well-being (e.g. Ciarrochi et al., 2023). Highly important processes can then be subjected to network analyses if sufficient within-person data are available (e.g. Sanford et al., 2022). Such idionomic approaches stay true to idiographic effects but need not sacrifice the nomothetic goal of estimating population-level effects. For instance, individual level estimates from person-specific network analyses can be meta-analysed to examine group-level estimates and the heterogeneity of those estimates (Lee & Gates 2023). High frequency longitudinal data (>60 time points) are needed for such approaches to produce reliable estimates (Gates et al., 2016). Such data are hard to collect but the field of self-compassion needs to work in this direction to better understand how self-compassion impacts individuals' well-being when examined within the constellation of other related processes of change. Such research will help answer the call to personalise interventions to serve the needs of specific individuals situated in their unique psychosocial contexts (Hofmann & Hayes, 2019).

The current findings provide further insights into inconsistencies reported by earlier research examining the link between self- and other-compassion. Theoretically, there is a strong rationale for self-other harmony (Crocker & Canevello, 2008; Wiklund Gustin & Wagner, 2013; Hermanto & Zuroff, 2016). Buddhist philosophy emphasises the interconnection between self and others, and research generally supports this (Crocker et al., 2017; Curry et al., 2018; Depow et al., 2021; Runyan et al., 2019). Yet correlational research tends to find a moderate association between self- and other-compassion (r<0.50; Gilbert et al., 2017; Yip et al., 2017), indicating that there remains unexplained variability in the link between the two forms of compassion. Using an ESM approach, Runyan et al. (2019) found that focusing on others' well-being can come at the cost of one's own well-being when combined with empathetic distress and overidentification with suffering. Such patterns can be amplified by further issues such as burnout or engaging in compassionate behaviour towards others to be seen as a good person or to be liked. Similarly, Baker and McNulty (2011) found in a longitudinal study that increases in self-compassion in men with low conscientiousness were associated with more selfishness, as perceived by their romantic partners. The current findings shed further light on the distinct yet related self- and other-compassion constructs by identifying differences in the extent to which people experience self-other harmony. This diversity in individual experiences may explain the complexity of results in existing ESM and longitudinal research, and the moderate rather than robust patterns in correlational research. Much of the variation in past results could be due to individual differences in experiences of self- and other-compassion.

These findings, in the context of a clinical sample, have important implications for psychological intervention. Most self-compassion interventions are universally administered regardless of baseline self- or other-compassion (see meta-analysis of self-compassion interventions; Ferrari et al.,

Table 5 Standardised estimates from multilevel models predicting mood state, controlling for contextual variables

Predictors	Model 4d			Model 5d			Model 6d		
	Estimates	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	−0.01	−0.09 to 0.07	0.860	0.02	−0.07 to 0.11	0.626	0.02	−0.05 to 0.10	0.534
TSC	0.02	−0.06 to 0.10	0.554				0.03	−0.05 to 0.10	0.471
Cor	0.06	−0.03 to 0.14	0.222	0.17	0.07 to 0.26	**0.001**			
SC	0.33	0.29 to 0.37	**<0.001**				0.29	0.25 to 0.33	**<0.001**
IP	0.21	0.17 to 0.24	**<0.001**	0.21	0.18 to 0.25	**<0.001**	0.19	0.16 to 0.23	**<0.001**
IO	−0.12	−0.15 to −0.09	**<0.001**	−0.13	−0.16 to −0.10	**<0.001**	−0.12	−0.15 to −0.09	**<0.001**
II	0.17	0.13 to 0.21	**<0.001**	0.18	0.14 to 0.23	**<0.001**	0.16	0.12 to 0.20	**<0.001**
IW	−0.06	−0.10 to −0.02	**0.004**	−0.07	−0.11 to −0.02	**0.002**	−0.07	−0.11 to −0.02	**0.002**
Cor × SC	0.08	0.04 to 0.13	**<0.001**						
TOC				0.04	−0.05 to 0.12	0.410	0.03	−0.04 to 0.11	0.413
OC				0.23	0.20 to 0.27	**<0.001**	0.14	0.11 to 0.18	**<0.001**
Cor × OC				0.10	0.06 to 0.14	**<0.001**			
SC × OC							−0.02	−0.04 to 0.01	0.166
Random effects									
σ^2	0.41			0.42			0.40		
τ_{00}	0.19			0.23			0.17		
ICC	0.32			0.36			0.30		
n	132			132			137		
Observations	3135			3135			3140		
Marginal R^2 / conditional R^2	0.391/0.584			0.338/0.575			0.412/0.592		

TSC trait self-compassion, *SC* state self-compassion, *OC* state other-directed compassion, *TOC* trait other-directed compassion, *ICC* intra-class correlation; Cor = within-person correlation of state self-compassion and state other-directed compassion; IP = most important thing spent time on since last prompt—found positive; IO = most important thing—found overwhelming; II = most important thing—in line with the way wanted to live life; IW = most important thing—wanted to spend time this way; σ^2 = variance of the residual; τ_{00} = variance of the intercept; *n* = sample size; *CI* = 95% confidence interval

2019). According to our results, examining or promoting self-compassion in isolation for clinical populations may come with inherent risks, as our study suggests that self-compassion needs to be understood in the context of other-compassion. Specifically, enhancing self-compassion may place some individuals at risk of compromising their experience of other-compassion, with potential flow-on effects for their well-being and personal relationships. Patients seeking therapeutic psychological intervention often present with distress, and such symptoms or challenging life experiences may increase the discord between self- and other-compassion. The decision to implement a psychological intervention designed to increase self-compassion may need to be considered by clinicians on a case-by-case basis for their clients, based on their presenting experience and understanding of self-compassion and other-compassion.

The current results also emphasise the benefits of data collected using ESM for understanding the idiosyncratic experiences of different forms of compassion. In the present study, trait and state measures of compassion were related but distinct constructs. This suggests that moment-to-moment experiences of compassion can differ from the relatively stable, trait-based compassion typically examined in correlational studies. Such rich information about the dynamic nature of humans in general, and compassion in particular, is reliant on ESM data.

A key strength of our study is that the richness and detail of ESM data were used to examine the interdependence of self- and other-compassion. Further, we used a novel approach to multilevel modelling analyses to understand the idionomic (those combining idiographic and nomothetic) effects of self-/other-compassion linking to well-being in ESM data: we first computed the within-person associations separately for each person and then conducted multilevel models. This approach is fitting given that these constructs are dynamic and responsive to changes in environment, life experiences, and psychological state. The data and R code of the current analyses are open access, which might benefit other researchers wishing to use a similar analytical approach. In addition, the current study used a clinical sample, including patients experiencing high psychological distress. Examining compassion in clinical samples expands our understanding of the construct beyond the frequently used

university student samples or generally healthy community adults.

Limitations and Future Directions

Some may see the use of a clinical sample as a potential weakness of our study, limiting the generalisability of the results to the wider population. Future research could seek to replicate our findings in non-clinical samples. Another limitation of our study, common to most ESM research, is the brevity of the measures we used. Single items were used to assess both trait and state forms of self- and other-compassion, well-being, and mood which may limit the generalisability of the results. However, ESM has high ecological validity and is well suited for our research questions because it allows for contextual momentary assessments over time (Mascaro et al., 2020). Further, unreliability of measures is more likely to lead to null (statistically non-significant) findings, as it increases the noise to signal ratio. Our effects were robust across several controls and conditions (e.g. inpatient versus outpatient).

Another limitation is the risk that some participants may mistakenly understand the self- and other-compassion items as what Desmond (2015, p. 96) refers to as the "near enemies of self-compassion", including selfishness, self-indulgence, self-pity, or being a martyr. Indeed, an individual who tends to prioritise other's needs and be self-sacrificing may mistakenly interpret being kind and supportive to oneself as a selfish act, when objectively it is not. This suggests that the clinician may need to explore unhelpful compassion beliefs before seeking to increase compassion. It may be possible to use within-person correlations as diagnostic indicators to suggest the need for changes in a compassion focused intervention to improve impact. If there is low self-other harmony, this may indicate lack of balance or inaccurate beliefs about self- and other compassion, both areas that can be targeted in cognitive behavioural therapy. Alternatively, possible misunderstandings might be systematically explored via new forms of assessment and the treatment utility of these methods can be assessed.

A further issue with our measure of self- and other-compassion is the wording of the items ("I am tolerant, benevolent, and caring with myself/others") and the use of the Likert scale ranging from 1 (*very often*) to 5 (*very seldom*). We chose the wording because these terms are commonly used and easy to understand. Further, we viewed self- and other-compassion as not just a feeling state but also involving taking action (Gilbert et al., 2017). However, opportunities to care for self or others may be limited for some people. In particular, the measure for other compassion, "I am tolerant, benevolent, and caring with others" may produce different responses depending on whether a participant lives with or is frequently around other people. Someone who lives alone may have less opportunity to extend care to others. In hindsight, also measuring the degree to which participants' relationships were stressful or conflict-ridden at each timepoint would have been an interesting potential confounding variable to measure and account for.

Further considerations of the measures used in the current study are face validity, factorial validity, criterion validity, and reliability. In our study, the compassion items focused on tolerant, benevolent, and caring of oneself/others. This overlaps substantially with the content of Neff et al.'s (2021) self-kindness state scale, which was published after the data collection of our study. Our measure used the terms, "tolerant, benevolent, and caring," and the Neff et al.'s (2021) measure focuses on tenderness, kindness, and care. Similarly, the self-kindness subscale in the Self-Compassion Scale (Neff, 2003b) explicitly references tolerance and patience, as well as kindness. Rakhimov et al. (2023) showed the factorial validity of the Self-Compassion Scale. Given that our measures were single-item, we were unable to utilise factor analysis for our data. But importantly, we showed that self- and other-compassion correlate with each other but not too highly, as would be expected of constructs that are distinct but related. Providing evidence of criterion validity, our data showed moment-to-moment state measures of compassion meaningfully relating to moment-to-moment experiences of well-being for people with different general tendencies to experience compassion towards self and others as harmonious. Also, correlations of trait and state measure of the same compassion construct (e.g. self-compassion) were stronger than the correlations of the trait measure of one form of compassion with the state version of the other form of compassion; this further supported the criterion validity of the measures we used. Finally, both state self- and other-compassion were highly reliable in our sample. Overall, this study indicates that single-item measures can be effectively used to reduce participant demand in ESM research, whilst also meaningfully capturing the psychological construct of interest.

To conclude, the results of this study indicate the potential challenges of examining or promoting self-compassion in isolation and suggest that self-compassion needs to be understood in the context of compassion for others. Prior to commencing a compassion-based intervention for clients, clinicians should seek to understand the client's interpretation of self- and other-compassion in addition to measuring the association of the two constructs. Future research would benefit from adopting ESM approaches to understanding self- and other-compassion, and both forms of compassion should be measured and considered in a clinical context when conceptualising cases and planning treatment.

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Author contributions Baljinder K. Sahdra: conceptualisation; methodology; software; formal analysis; investigation; writing—original draft; writing—review and editing; visualisation. Joseph Ciarrochi: conceptualisation, methodology, validation, formal analysis, investigation, writing—review and editing. Madeleine I. Fraser: conceptualisation; writing—original draft; writing—review and editing. Keong Yap: conceptualisation; writing—original draft; writing—review and editing. Elisa Haller: resources; data curation; writing—review and editing; project administration. Steven C. Hayes: conceptualisation, methodology, writing—review and editing. Stefan G. Hofmann: conceptualisation, methodology, writing—review and editing. Andrew T. Gloster: conceptualisation; methodology; investigation; resources; data curation; writing—review and editing; supervision; funding acquisition.

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Data Availability Data files and the analysis R script are available on Open Science Framework: https://osf.io/phvrx/?view_only=649acca8fe1a4ff1bc82f974dc0c8868.

Declarations

Ethics The study was registered with the ISRCTN: ISRCTN11209732 and approved by the Ethics Committee of northwestern and central Switzerland (Ethikkommission Nordwest- und Zentralschweiz; EKNZ): Project 165/13.

Informed Consent Informed consent was obtained from all study participants in written form after participants read written study information materials and had the opportunity to clarify any questions.

Conflict of Interest The authors declare no competing interests.

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