

State Self-compassion and Subjective Well-being: An Experience Sampling Study

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Abstract

Through the emergence of positive psychology, self-compassion has become a central research topic showing a link to a plethora of mental health benefits with several studies examining both self-compassion and subjective well-being. However, literature has yet failed to address the association between these constructs based on daily fluctuations and momentary states. The present study utilized ecological momentary assessment to explore the association between self-compassion and subjective well-being in daily life. Participants (n =32) reported their momentary experience of self-compassion and subjective well-being four times a day for one week and filled out corresponding trait questionnaires. State selfcompassion and state subjective well-being showed considerable fluctuations over the course of one week and were associated positively at the within-person level. While the strength association based on trait levels of self-compassion and subjective well-being respectively did not differ statistically, visible differences in fluctuation and association strength are discussed. The observed association was stronger for the low trait self-compassion group ($\beta = .38$) compared to the high trait self-compassion group ($\beta = .24$), and stronger for the high trait subjective well-being group ($\beta = .47$) compared to the low trait group ($\beta = .22$). Results are discussed in the framework of the broaden and build theory and indicate an uplifting effect of self-compassion and subjective well-being, meaning that both constructs seem to co-evolve at the within-person level with reciprocal building effects rather than complimentary effects. Considering the lack of complimentary effects and thus opposing movements at the withinperson level in times of despair in our study, more research targeting buffering mechanism of self-compassion at the within-person level is necessary. Moreover, our findings yield additional support that self-compassion inducing interventions may be beneficial in increasing momentary levels of subjective well-being.

State Self-compassion and Subjective Well-being: An Experience Sampling Study

Since the end of the 20th century, a new research field within psychology - namely Positive Psychology - emerged which primarily focuses on identifying relevant attributes that affect human beings' well-being (e.g. Seligmann & Csikszentmihalyi, 2014). Subsequently, a substantial body of literature is emerging with a clear focus on enhancing well-being (e.g. Chakhssi et al., 2018; Giovanni et al., 2016) that has identified self-compassion as an important and trainable building block (e.g. Ferrari et al., 2019; Smeets et al., 2014). The association between trait self-compassion and trait subjective well-being has been well established (e.g. Neely et al., 2009; Zessin et al., 2015). Results suggest that self-compassion is an important determinant of subjective well-being, with individuals reporting higher average levels of self-compassion when reporting higher average levels of subjective wellbeing and vice versa (e.g. Zessin et al., 2015; Mac Beth & Gumley, 2012).

It is by now generally accepted, that psychological constructs such as self-compassion and subjective well-being exhibit relevant variation on the intra- and interpersonal level with both state and trait aspects contributing to the immediate manifestation of said constructs (Hamaker et al., 2007; McGuire et al., 2020). Yet available literature commonly fails to distinguish between state and trait definitions of both constructs when conducting their investigations (e.g. de Vries et al., 2020; Zessin et al., 2015). Individual differences and fluctuation in daily life are not captured with traditional, cross-sectional designs, which only account for differences between groups. To overcome this limitation, the present study utilizes ecological momentary assessment (EMA) to explore the association of selfcompassion and subjective well-being in daily life. EMA allows to collect data on current emotional states that occur in the natural environment and can thereby capture processes as they unfold in time (Shiffman et al., 2008), generating insights about the individual momentto-moment experience of mental processes and their fluctuation. This approach enables us to distinguish between-person and within-person effects, which is essential to foster an understanding of how these constructs work within an individual in their natural environment.

Subjective Well-being

Historically, human beings have been constantly striving for happiness and it is widely considered to be the most important goal in life (Compton, 2005; De Neve et al., 2013) with the "pursuit of happiness" as a central societal sentiment (Lyubomirsky, 2005). Even though happiness has been a central part of human existence, the topic has only started to attract substantial research interest within psychology at the end of the 20th century (Medvedev & Landhuis, 2018) and through the rise of Positive Psychology (Seligmann & Csikszentmihalyi, 2014). In research, there are several definitions of happiness with two traditions of operationalizing subjective well-being or happiness often being distinguished. To avoid ambiguity, we will adopt the literature's definition of happiness as subjective well-being also often referred to as hedonic well-being. Subjective well-being (SWB) is considered a substantial building block in the pursuit of the "good life" or flourishing as defined by Keyes (2007) and thus has clear relevance for research and policy making alike. It allows for the evaluation about the quality of life of an individual, tapping into the way people feel or think about their own life (Diener et al., 2003). SWB describes the individuals' evaluation of their life containing cognitive as well as emotional judgments (Diener & Chan, 2011), with a central distinction between cognitive well-being and affective well-being (Eid & Larsen, 2008). The component cognitive well-being describes a cognitive evaluation of one's life, often called life satisfaction within literature (Zessin et al., 2015). Affective well-being on the other hand describes the presence of positive affect and the absence of negative affect (Zessin et al., 2015).

Research into SWB indicates a clear consensus on the positive associations of subjective well-being with different life domains, showing significant correlations with health

and longevity, work and income, social relations as well as societal benefits (e.g. Diener & Ryan, 2009; Lyubomsky et al., 2005). Not only does subjective well-being amplify positive outcomes, but also studies utilizing group comparisons indicated that it has the ability to reduce the number of chronic physical disease while also buffering against mental health problems (Grant et al., 2013). Therefore, enhancing SWB could reduce the overall burden on the public health system significantly (Keyes, 2007). These associations of subjective well-being are established to be independent of the negative effects of ill-being, pointing towards the importance of further investigating well-being (Howell et al., 2007) and adaptation or change processes as indicated by the two continua model of mental health (e.g. Keyes, 2007; Bohlmeijer & Westerhof, 2020).

Until recently, subjective well-being was theorized as a dispositional trait with strong hereditary roots (Diener et al., 2002), possessing cross situational consistency and temporal stability (Veenhoven, 2005). However, as with many complex human traits, SWB has substantial state like and momentary properties that lead to a fluctuation of subjective wellbeing at the intraindividual (within-person) level and allow for change (e.g. Kaczmarek et al., 2015; Veenhoven, 2005; Veenhoven, 1994). Supporting this notion, studies indicated that SWB is strongly depending on intentional activity (Csikszentmihalyi & Hunter, 2003; Lyubomirsky et al., 2005) or life events and circumstances (Luhmann et al., 2012), showing a need to further investigate determinants and fluctuation of SWB in daily life (Reis et al., 2018). In the pursuit of these determinants of subjective well-being, research interest has grown on self-compassion, consistently finding a strong association (Zessin et al., 2015).

Self-compassion

Self-compassion was first introduced in the western world and scientific literature by Neff (2003), defining it as the ability to be kind and helpful to oneself in times of suffering or despair. It can be viewed as healthy self-acceptance that allows for active emotion regulation

(Neely et al., 2009). Neff (2003) proposed three individual and interacting components of self-compassion that generate a self-compassionate frame of mind (Neff & Costinga, 2014): 1) Self-kindness – the ability to be kind and understanding towards oneself when we suffer or fail, 2) Common Humanity – the recognition that suffering and difficulties are part of life and a shared human experience, 3) Mindfulness – a balanced awareness and perspective on thoughts as well as emotional states. Research has repeatedly demonstrated a link between self-compassion and different measures of mental health and well-being (e.g. Ferrari et al., 2019; Neff et al., 2007; Zessin et al., 2015). Higher average levels of self-compassion have been associated with decreased levels of rumination, depressive symptoms, anxiety, and perceived stress (e.g. Allen & Leary, 2010; Neff, 2009). In addition, a wide range of research has established the association of higher levels of trait self-compassion with increased subjective well-being, optimism, and positive affect (e.g. Ferrari et al., 2019; Neff et al., 2007; Neff & Germer, 2017). The promising results and diverse applications show a clearly established link between trait self-compassion and different measures of mental health.

More recently, self-compassion has been conceptualized as both an enduring personality trait and a momentary state that is sensitive to situational and contextual factors (e.g. Katan & Kelly, 2021; Stephen & Kelly, 2016). Trait self-compassion is characterized as stable disposition and interindividual difference, which causes individuals to be more or less prone to treat themselves kindly in the face of suffering (Neff et al., 2007). Individuals however, regularly show a range of momentary and short lived states across different situations and context with substantial variability (Rauthmann et al., 2018). State selfcompassion is thus defined as a momentary instantiation of self-compassion which is characterized by intra-individual variability or change based on context, situation, and day (Kelly & Stephen, 2019; Neff et al., 2021). With this in mind, Neff and colleagues (2021) see a starting trend in research with studies exploring how changes in state self-compassion impact well-being.

While research on trait self-compassion is well established, literature on state selfcompassion is - to date - still scarce (Zessin et al., 2015). Supporting the assumed state level properties of self-compassion, first findings suggest that state self-compassion leads to momentary reduced negative affect (Leary et al., 2007), can promote health and adaptive behavior (Terry & Leary, 2011), and changes momentary mood by promoting effective emotional processing (Odou & Binker, 2014). Results by Lie and colleagues (2019) as well as Kelly and Stephen (2016) indicate that higher state self-compassion was associated with less stress, reduced concern with eating habits, and an increased satisfaction with their own bodies, further stressing the importance of additional research into state self-compassion. In addition, the meta analysis by Zessin and colleagues (2015) found that state self-compassion manipulations in laboratory studies yielded a significant and strong negative effect on negative affective well-being (g = -0.90), further supporting the relevance of research into state self-compassion and its association with subjective well-being.

Working mechanism of Self-compassion

Literature proposes two ways in which self-compassion may affect human functioning and subjective well-being. First, the broaden and build theory (Fredrickson, 2001) suggests that experience of positive emotions broadens the scope of attention, cognition, and action, thereby consequently building a range of personal resources. Hence, self-compassion could help individuals to thrive and flourish by building personal resources though increased positive affect or emotions (Fredrickson, 2001; Odou & Binker, 2015). Overall, findings suggest self-compassion functions as part of the emotion regulation strategy, increasing the use of adaptive coping strategies such as cognitive reappraisal and acceptance (e.g. Allen & Leary, 2010; Ferrari et al., 2019) and thus leads to more positive experiences and an increase of positive affect (Odou & Binker, 2015). A more positive cognitive mindset through selfcompassion that leads to increased positive evaluations and affect could therefore increase

subjective well-being directly or weaken the effects of negative emotions (Diener & Ryan, 2009). Through this process, self-compassion might provide effective emotional processing that builds positive emotions and reduces negative ones, leading to greater life satisfaction and success (Odou & Binker, 2015).

Secondly, self-compassion might function as a resilience mechanism (Trompetter et al., 2017) or adaptive resource (Bohlmeijer & Westerhof, 2020), leading to a weakening of or buffering against negative events (e.g. Diener & Ryan, 2009; Zessin & Dickhäuser, 2015) by yielding a friendly, accepting, and situational context for occurring stressors (Diedrich et al., 2014). This contributes to the appraisal of said stressors as controllable, momentary, and less aversive, possibly leading to a shift of negative emotions into more positive ones (Terry & Leary, 2011). This idea has been linked to standard theories of well-being such as the adaptation theory or set-point theory (Lucas et al., 2003), proposing a temporary change in subjective well-being following a change in life circumstances (Zessin & Dickhäuser, 2015). It is assumed that after positive or negative experiences, a peak - or low point respectively - in subjective well-being follows compared to the persons individual standard. According to theory, self-compassion could weaken the negative peak, leading to a reduced drop in subjective well-being and thus buffer against negative events through cognitive reframing (Odu & Binker, 2014; Zessin & Dickhäuser, 2015) thereby decreasing the impact of negative emotions (Fedrickson, 2001; Garland et al., 2010). In this way, self-compassion might be especially present in difficult moments (Nienhaus, 2021) and protect against their impact (Leary et al., 2007).

To date however, the timing and thus also the sequence in these mechanisms is unclear. When considering the buffering hypothesis, self-compassion is assumed to be particularly important in the presence of negative events and their aftermath. After selfcompassion rises in the light of suffering or despair, this should lead to recovery and thus increased subjective well-being at the next measurement as proposed by mood repair

literature and results by Odou and Binker (2014). To investigate this delayed effect recent research suggested to measure self-compassion of the previous moment and the outcome (e.g. subjective well-being) at a later point in time (Stutts et al., 2018). In line with this, a previous study on the effects of self-compassion on post-traumatic stress and panic symptoms found a time lagged association with effects on these outcomes on a later point in time (Zeller et al., 2015). However, only research by Odou and Binker (2014) has shown lagged effects for individuals in a short time frame as proposed by mood repair literature. They induced self-compassion and a change in mood followed within 10 minutes, pointing to a relative immediacy in the mechanism of self-compassion. With only scarce research available and a lack of studies that allow to capture mental processes within individuals, there is a clear need to further disentangle the timing in the associations of self-compassion and subjective well-being.

The current study

Previous research on the association between self-compassion and subjective wellbeing has primarily conceptualized self-compassion as an individual difference variable (trait), not acknowledging that - like many complex personality variables - self-compassion has both trait like and state like properties (e.g. Katan & Kelly, 2021; Stephen & Kelly, 2016). Commonly utilized research designs - employing cross sectional designs and retrospective surveys - have mainly studied whether people who are on average highly self-compassionate report higher levels of subjective well-being. These studies are targeted to examine differences between participants (between-person effect), rather than differences within individuals across time (within-person effect), which would be necessary to capture the proposed situational dynamic of mental processes or intraindividual working mechanisms (Csikszentmihalyi, & Larson, 2014).

As outlined by Curran and Bauer (2011), results on between-person effects do not allow for inference of effects on within-person processes and might even operate in different directions. Specifically self-compassion, which is assumed to be particularly important in the momentary presence of negative events and their aftermath (e.g. Stutts et al., 2018), might be needed most and thus be high for an individual when subjective well-being is at a low point. In sum, this would result in a negative and therefore opposite association at the within-person or state level. Thus, even though current findings at the between-person level are informative, they do not provide insights on whether a given individual has something to gain from treating him or herself more self-compassionately at a given moment or day. Moreover, it is unclear whether there are differences in the association between state self-compassion and state subjective well-being based on their respective trait level of self-compassion and subjective well-being. Trait levels might influence the experience of state levels (e.g. Waring & Kelly, 2019) and could therefore lead to different patterns in terms of fluctuation or strength of state experiences. Considering this lack of research on the individual differences and fluctuation, the current study adds to the existing literature by applying EMA to explore the association between self-compassion and subjective well-being in daily life of individuals. Based on the outline, the following research questions were derived:

- (1) How are daily levels of self-compassion and subjective well-being associated with each other?
 - (a) To what extent do levels of state self-compassion and state subjective well-being fluctuate in daily life?
 - (b) Is the association between state subjective well-being and state self-compassion different for the within-person and between-person level respectively?
 - (c) Is the within person association different based on high or low trait levels of selfcompassion?

- (d) Is the within-person association different based on high or low trait levels of subjective well- being?
- (e) Is there an association between previous state self-compassion and state subjective well-being at the next measurement point?

Method

Design

This paper utilizes data collected in the scope of a larger research project conducted in 2020 at the University of Twente and was approved by the Behavioral, Management, and Social Sciences ethics committee (Request-Nr. 200371). The study was conceptualized as a longitudinal online study, employing the experience sampling method (ESM) over the course of nine days, assessing trait as well as state levels of self-compassion and subjective well-being respectively. The adaptation of ESM gives the opportunity to assess data of complex psychological mechanisms in real time unaffected by recall bias and reflective evaluations while accounting for within-person effects.

Participants

The present study applied convenience sampling utilizing the researcher's social network and SONA Systems, the Test Subject Pool at the University of Twente, yielding a sample of 51 participants. To meet the established inclusion criteria, participants had to be aged 18 or older, be proficient in English, and own a smartphone with the capability to operate the *Ethica* application. In total, 19 participants were excluded from the analysis as they did not meet the inclusion criteria (n = 8) or displayed a response rate of less than 40% (n = 11). The final sample was composed of 32 participants between the age of 19 and 25 (M = 21.31; SD = 1.30), with 24 female and 8 male subjects. Participation was voluntary and informed consent was given online before the start of the study.

Procedure

In advance, a two day pilot study was introduced with three participants to test the usability of the surface, the timing of surveys as well as the response function. The original thesis did not indicate any modifications afterwards. For the present study with a total duration of nine days, participants signed up through the researcher directly or through SONA, the Universities test subject pool. Participants that signed up through SONA received credit for full participation, while other participants did not receive any compensation. To start off the study, participants had to download the Ethica application, sign up for the study with their unique participation code, enable notifications and give their informed consent online. On the ensuing day (day 1), subjects were further instructed about the study and important procedures, had to fill in a demographic questionnaire and completed the four trait questionnaires including the SCS-SF as well as the AB5C-IPIP through Ethica. On the ensuing seven days, the participants received four surveys a day with each containing the same six state questions in randomized order. Each day, questionnaires were automatically triggered interval contingent and made available between 9-10 am, 12-1 pm, 4-5 pm and 8-9 pm respectively. In each instance, participants received a push notification when a survey became available and a second notification as a reminder after an additional 30 minutes. Surveys expired 60 minutes after the first notification to keep a scheduled momentary assessment (Berkel et al., 2017). After completing the last survey on the final day, participants received a notification informing about the end of the study and thanking for participation with the possibility to contact the researchers with any questions.

Material and Measures

The present study was part of a larger research project and thus included variables unrelated to the aim of this paper. Overall, the total test battery consisted of four daily EMA questions and four trait questionnaires, specifically the Self-Compassion Short Form (SCS-

SF) (Raes, Pommier, Neff, & Van Gucht, 2011), the AB5C Personality Inventory (Bäckstöm, Larsson, & Maddux, 2009), the Aggression Questionnaire (Buss & Perry, 1992), and the Big Five Aspect Scale (BFAS) (DeYoung, Quilty, & Peterson, 2007). With relevance to this study, the SCS-SF and AB5C will consequently be described in more detail.

Online Research Platform Ehtica

Ethica is an established online intervention and survey tool that allows for data collection using the participants own smartphone operating either on Android or iOS. The Ethica application permits to trigger a predefined package of questionnaires several times a day over an expanded period of time, making it feasible for EMA. The system provides push notifications and additional reminders when new surveys are available and need to be answered, reducing participant's burden. Lastly, survey packages can be set to expire after a predefined interval, upholding the momentary character of assessment which is necessary when utilizing EMA.

Trait Questionnaires

Self-Compassion Scale – Short Form (SCS-SF). We utilized the SCS-SF (Raes et al., 2011), a shorter version of the Self –Compassion Scale SCS (Neff, 2003), to explore the subjects trait self-compassion. As indicated by Raes et al. (2011) the short form possesses good internal consistency, displays strong correlations with the original version when comparing total scores and has an identical factorial structure, indicating the feasibility for research purposes. Overall, the SCS-SF consists of 12 items evenly divided over six subscales that represent the three positive facets of self-compassion (Self-Kindness, Common Humanity, and Mindfulness) and its negative opposite facets (Self-Judgment, Isolation, and Over-Identification) that are to be reverse coded. Items can be answered by using a 5-Point Likert Scale (1= almost never to 5 = almost always) with higher sores indicating a higher level of self-compassion. Exemplary items are *"I try to be understanding and patient towards*.

those aspects of my personality I don't like" and "When I'm going through a very hard time, I give myself the caring and tenderness I need". In this study the SCS-SF showed good reliability with a Cronbach's alpha estimate of .87.

Abridged Five Factor Circumplex Model (AB5C-IPIP). To examine the participant's trait Subjective Well-being, the Happiness subscale of the Abridged Five Factor Circumplex Model (AB5C-IPIP) was used. As shown by Bäckström and colleagues (2009) the subscale possesses good internal consistency and acceptable structural validity, making it a feasible instrument for research. The subscale Happiness consists of 10 items, of which 5 needed to be reverse coded, that can be answered on a 5-Point Likert Scales (1= very inaccurate to 5= very accurate) with higher scores indicating higher levels of Subjective Wellbeing. An example item for this scale is provided: *"I feel comfortable with myself"*. In the present study the AB5C showed good reliability with a Cronbach's alpha estimate of .83.

State Questionnaires

In order to prevent habituation in responses of participants, items of the daily questionnaire were ordered randomly at each instance.

State Self-compassion. State self-compassion was measured using a single item "During the last minutes, I have been tolerant of my own flaws and inadequacies" that was derived from the original SCS-SF (Raes et al., 2011) and slightly adjusted in order to capture momentary state of self-compassion. A similar approach was used in a previous study by Li et al. (2019), utilizing items of the original SCS-SF and transforming them in a similar way, yielding promising results. For scoring, a 5-Point Likert Scale was utilized ranging from 1 (Never) to 5 (Always). The item with the highest factor loading was selected to increase validity. Validity of the single item measures was tested through correlational analyses. Correlational analyses between state self-compassion (PM) and trait self-compassion (SCS-SF) resulted in a weak and non-significant correlation (r = .17, p = .34). Subsequently, the

split-half reliability for the single item state measures yielded good reliability for state selfcompassion ($\alpha = .86$).

State Subjective Well-being. State Subjective Well-being was measured using a single item "*I feel happy at the moment*" which was to be answered on a 5-Point Likert Scale ranging from 1 (very inaccurate) to 5 (Very accurate). The meta-analysis by de Vries et al. (2020) indicated that most studies assessing momentary happiness utilized a similar single item approach. The split-half reliability for the single item state measures yielded acceptable reliability for state subjective well-being ($\alpha = .74$). Correlational analysis with state subjective well-being (PM) and trait subjective well-being (AB5C-IPIP) showed a weak and non-significant correlation (r = .19, p = .31).

Data Analysis

The data analysis was conducted by using Version 27 of IBM SPSS Statistics. All participants with a response rate over 40% who meet the predefined inclusion criteria were included in the analysis. Descriptive analysis of data providing means and distribution across the sample were carried out for age, gender and nationality as well as trait self-compassion and trait happiness. To ensure that missing data were missing randomly, Little's Missing Completely at Random (MCAR) test was performed. For state self-compassion and state happiness, person means (PM) were calculated over the 7 day span to allow for betweenperson analyses. Additionally, person mean-centered scores (PMC) were estimated for both constructs, showing the difference between mean scores and individual measurement point. This approach allows for the disaggregation of between-person and within-person associations within the same model while being unpolluted by the subjects own history as recommended by Curran and Bauer (2011).

To determine the reliability of the SCS-SF and the AB5C-IPIP within the present sample, Cronbach's Alpha was determined while handling the common interpretation criteria

as suggested by George (2011). The split-half reliability of state scores – splitting the dataset into two equal parts of data points to estimate reliability – is calculated to examine the reliability of the state measures. Additionally, a Pearson Correlation analysis between PM state self-compassion and the SCS-SF mean score as well as between the PM state happiness and the AB5C-IPIP mean score will be carried out, handling the common interpretation criteria of Cohen (1988), and giving an indication of the validity of the shortened state measures. Next, Pearson correlation was used to determine the association between state selfcompassion (PM) and state happiness (PM) as well as between trait self-compassion and state happiness (PM). Next, Interclass correlation coefficients (ICCs) were calculated for state selfcompassion and state subjective well-being, reflecting the proportion of total variance that can be attributed to between-person differences.

Additionally, two Linear Mixed Model (LMM) analysis were performed utilizing an auto regression structure, which has the capability to account for missing data while also controlling for dependency between data. To perform the analysis and ensure comparability, standardized coefficients were calculated for state measures of self-compassion and subjective well-being. To explore the association between self-compassion and subjective well-being at the within-person as well as between-person level, a LMM analysis was performed with self-compassion (PM) and self-compassion (PMC) set as fixed covariate and state subjective well-being as dependent variable. Secondly, to explore the supposed time lagged association between state self-compassion and state subjective well-being, a time lagged variable of self-compassion based on the previous survey (t - 1) will be created for the state self-compassion measure. As the time lagging results in data points which are from different days with significantly longer intervals, these will be excluded from analysis. Subsequently, a LMM analysis will be performed with time lagged scores of state self-compassion set as fixed covariate and state subjective well-being as dependent variable.

For further exploration of the influence of trait levels on the association the data file was split, filtering cases into low trait an high trait groups for self-compassion and subjective well-being respectively. Trait levels were considered average between the 25th and 75th percentile. Cases were selected by selecting participants below the 25th percentile for the low trait groups and participants above the 75th for the high trait group. For high as well as low trait groups, separate LMMs were used to assess the association between state self-compassion and state subjective well-being. Additionally, spaghetti plots were created for each high and low trait group, depicting the development of state self-compassion and state subjective-wellbeing across all measurements separately.

Results

Descriptive Statistics

A summary of mean as well as maximum and minimum scores of trait selfcompassion and trait subjective well-being is provided in Table 1. Results of the Shapiro Wilk Test indicated a normal distribution of the data within the sample for trait self-compassion (W= .96, p = .28) and trait subjective well-being (W = .97, p = .57). Results of Little's MCAR indicated that data for state variables were missing completely at random (x^2 = 801.159, p = 1.00). Across the 28 measurement points and missing values, no pattern of missing data could be identified. In sum, 128 out of 888 (14.4%) measurement point were incomplete while the percentage of missing values per measurement point varied between 6.3 and 34.4%.

Table 1

Descriptive Statistics for Trait Subjective Well-being (AB5C) and Trait Self-compassion (SCS-SF)

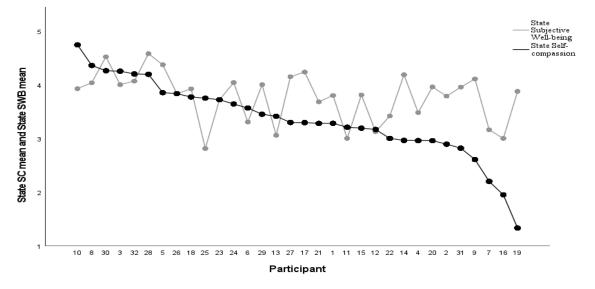
Variables	п	Minimum	Maximum	М	SD
AB5C	32	24 (10)	45 (50)	35.03	5.32
SCS-SF	32	23 (12)	51 (60)	38.16	7.76

Note. Total Scale Minimum and Maximum are indicated in parenthesis.

Inferential Statistics

The positive association between trait self-compassion and trait subjective well-being could be confirmed by performing a bivariate Pearson correlation, resulting in a strong positive correlation (r = .72, N = 32, p < .001) within the sample. Correlational analyses between trait self-compassion and state subjective well-being (PM) resulted in a weak and non-significant correlation (r = .09, N = 32, p = .61), indicating that higher levels of trait self-compassion are not associated with higher average state levels of subjective well-being. Average state self-compassion ranged from 1.33 to 4.74 while average levels of state subjective well-being ranged from 2.81 to 4.58. Results of the correlational analyses between state self-compassion (PM) and state subjective well-being (PM) showed a moderate significant correlation (r = .35, N = 32, p < .05), indicating that higher average state levels of subjective well-being. Overall, *Figure 1* illustrates the moderate association between average state self-compassion (PM) and average state subjective well-being (PM).

Figure 1



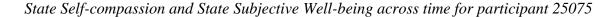
Mean state Levels of Self-compassion and Subjective Well-being per Participant

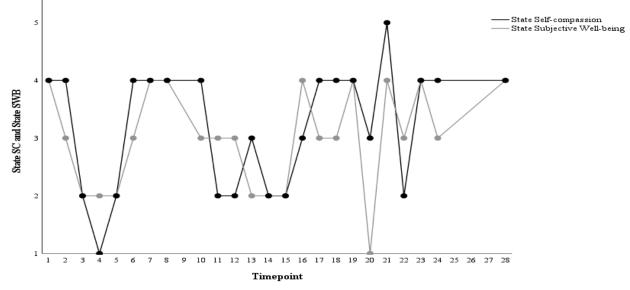
Note. 5-point Likert scale. Data are ordered descending based on the mean score in state self-compassion.

In addition, Intraclass correlation coefficients (ICCs), reflecting the proportion of total variance that can be attributed to between-person differences were calculated manually based on Estimates of Covariance Parameters by handling the formula shown in Appendix 1. The ICC for self-compassion in the sample was .38, suggesting more than half of the variability occurred within-person, further supporting that levels of self-compassion vary across time within individuals. Similarly, the ICC for Subjective Well-being in the sample was .19, indicating that most of the variability over time.

To further investigate the daily fluctuation of state self-compassion as well as state subjective well-being, visual analyses were used. For instance Participant 25075 (Figure 2), experienced high and low levels of state self-compassion and subjective well-being respectively, even though values were more concentrated in the midrange. As seen in Figure 3 and Figure 4, both constructs showed fluctuation over the course of one week in daily life for different participants across the board.

Figure 2





Note. 5-point Likert-scale.

In order to investigate the strength of the association between state self-compassion (within-person) and average state self-compassion (between-person) respectively with state subjective well-being, a Linear Mixed Model was used disaggregating within person (state-like) and between person (trait like) associations. The results for the standardized model showed a significant but weak within-person association ($\beta = .29$; SE = .03, p < .001, 95% CI [.22, .36]) and a significant but weak between-person association ($\beta = .18$; SE = .03, p < .001, 95% CI [.11, .24]). Even though our model suggests a stronger within-person association, the overlapping confidence intervals indicate no statistical significant difference within our sample. Figure 2 shows this within-person association quite clearly for participant 25075. Movements in both constructs often operated simultaneously and in moments in which self-compassion rose, so did subjective well-being. Even though simultaneous movements could be observed for most participants at some point, this pattern was rarely displayed in such clear terms - which is in line with the significant but weak association found overall.

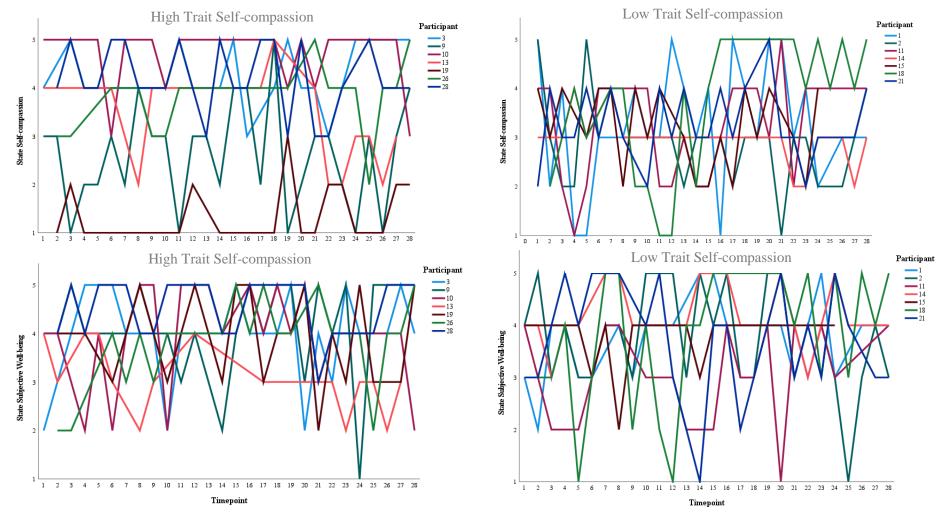
As visible in Figure 3 and Figure 4, the association between state self-compassion and state subjective well-being differed between high or low trait levels of self-compassion and

subjective well-being respectively. Separate analyses were run for each category. For the high trait self-compassion group (n = 7), there was a significant and weak association between state self-compassion and state subjective well-being ($\beta = .24$; SE = .06, p < .001, 95% CI [.12, .35]). For the low trait self-compassion group (n = 7), a significant and moderate association was found ($\beta = .38$; SE = .07, p < .001, 95% CI [.24, .51]). Even though results indicate a stronger association for the low trait group, overlapping confidence intervals indicate no statistically significant difference in associations. Hence, state self-compassion predicted levels of state subjective well-being in both groups.

As visible in Figure 3, the low trait self-compassion group was more concentrated around the mid-levels of state self-compassion with fewer extremes and less fluctuations. Still, the maximum level of state self-compassion was achieved by several participants across the week. Compared to the high trait self-compassion group however, the lowest level of state self-compassion was more frequent, with two participants in this group on the lowest level several times across the week. For this group, state scores of subjective well-being were skewed more to the average and higher scores with a strong fluctuation across values. In total, four participants in the group reached the lowest point at least once in comparison to only one participant in the high trait group. In line with the found association, simultaneous movements can be identified for most participants - as for example for participants 18 - at several instances.

The high trait self-compassion group showed strong fluctuations in state selfcompassion and was – with exception of participants 9 and 19 – loosely concentrated around high and average values of state self-compassion. While all scores are present across participants, in comparison to the low trait group high scores on state self-compassion are more frequent and reached by all participants except for one. State scores of subjective wellbeing also show fluctuation with considerably less low values and an overall concentration around higher values.

Figure 3



State Self-compassion and Subjective Well-being of Participants High and Low in Trait Self-compassion

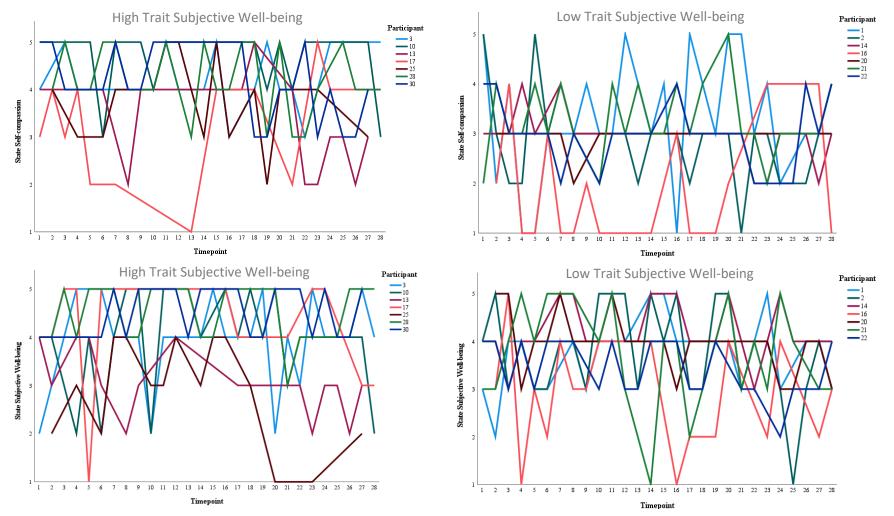
Note. 5-point Likert scale. Each line represents a single participant with the legend referring to the corresponding participant number.

While simultaneous movements were present at times (e.g. Participant 26 and 28), they were not as clear and frequent as in the high trait group. Especially Participant 19 experienced almost exclusively low levels of state self-compassion, while experiencing average to high levels of state subjective well-being. Moreover, in both groups – high and low trait self-compassion – instances with opposing tendencies in state self-compassion and state subjective well-being are very scarce and could not be identified as pattern.

For the high trait subjective well-being group (n = 7), there was a significant and moderate association between state self-compassion and state subjective well-being ($\beta = .47$; SE = .08, p < .001, 95% CI [.31, .63]). For the low trait subjective well-being group (n = 7), a significant but weak association was found ($\beta = .22$; SE = .07, p < .001, 95% CI [.07, .36]). Even though results indicate a stronger association for the high trait group, the wide and thus overlapping confidence intervals indicate no statistically significant difference in associations. Hence, state self-compassion predicted levels of state subjective well-being in both groups.

As shown in Figure 4, the low trait subjective well-being group was clearly clustered around average state levels of self-compassion with overall less fluctuation and only a few extreme values. Still, every value on the scale was present but in comparison to the high trait group maximum values in state self-compassion were more scarce and only reached at least once by three participants within the week, while minimum values were more frequent. With instances of simultaneous and some of opposing movements of state self-compassion and state subjective well-being, overall no clear pattern emerged and especially opposing movements were scarce. In practice, simultaneous movements were more common but could not be identified as a clear cut pattern, as indicated by the small positive association found in the analysis.

Figure 4



State Self-compassion and Subjective Well-being of Participants High and Low in Trait Subjective Well-being

Note. 5-point Likert scale. Each line represents a single participant with the legend referring to the corresponding participant number.

In the high trait subjective well-being group, state self-compassion scores were clustered at high levels with all participants reaching the maximum score at some point, showing a clear distinction towards the low trait group. Overall, low scores were scare with only participant 17 experiencing the lowest level of state self-compassion once at time point 13. State subjective well-being scores were also clustered around high levels similarly to the low trait group, even though maximum values were more frequent. Participants 2, 10, 13, 28 and 30 often display simultaneous movement of state self-compassion and state subjective well-being, especially when observing strong shifts. Participant 17 experiences opposing tendencies more frequently, but this could not be observed elsewhere. In practice, simultaneous movements and high levels of both constructs at the same moment were commonly observable in this group. Therefore a clear pattern could be identified which is indicative of well visible moderate association.

To explore the potential time lagged association of state self-compassion from the previous measurement point (T₋₁) on subjective well-being (T₀) a second linear mixed model was utilized. The results of the standardized model showed a significant but very weak association ($\beta = .09$; *SE* = .04, *p* < .05, 95% CI [.01, .18]) between state self-compassion at the previous measurement point and state subjective well-being. Hence, increased levels of self-compassion were to a weak extend followed by increased levels of subjective well-being. In practice, this weak association was rarely visible in clear terms and could thus not be identified as pattern. Simultaneous movements in both constructs, as indicated earlier, were much more common.

Discussion

The present study aimed to explore state self-compassion, state subjective well-being and their association in the context of daily life. More specifically, the design of the study allowed us to examine within-person effects beyond the common between-person effects. State self-compassion and state subjective well-being showed considerable fluctuations over the course of one week and were associated positively at the within-person level. While differences in the strength of association and fluctuation based on trait levels of selfcompassion and subjective well-being respectively were not significant, visual analysis showed disparities that are further discussed. Lastly, state self-compassion of the previous measure was weakly associated with state subjective well-being at the next measurement point. However, this could not be identified as pattern when examining individuals.

Trait and State Questionnaires

To ensure validity of the state measures, correlational analyses between trait questionnaires (AB5C, SCS-SF) and their corresponding state items was conducted. Results showed a weak and non-significant association between average state scores of subjective well-being and trait questionnaire (AB5C) scores. Nonetheless, both questionnaires showed acceptable and good reliability respectively and thus have the necessary internal consistency while seemingly not measuring the same construct with no significant convergent validity. Similarly, results showed a weak and non-significant association between average state scores of self-compassion and scores of the SCS-SF. Still, both questionnaires showed good reliability and thus the necessary internal consistency while seemingly not measuring the same construct.

Results are opposing the findings of Fleeson (2001) and Rauthmann and colleagues (2019), who argue that aggregates of state scores across time should - in principle - be a good approximation of a trait and thus show strong convergence. Research has indeed repeatedly

shown, that state aggregates are commonly associated with trait measures with correlations ranging from .20 to .60 (Rauthmann et al., 2019). For instance, a previous study by Waring and Kellly (2019) on self-compassion found a strong and significant association between state aggregates and trait measures of self-compassion, further supporting this notion. However, recent research (e.g. Conner & Barrett; Rauthmann et al., 2019) poses the question whether assessments of traits and state aggregates actually measure the same as they might be conceptually different (Baumert et al., 2017). Further illustrating this idea, a recent study on convergence of state and trait subjective well-being showed considerable differences between aggregated state and trait scores of subjective well-being (Newman et al., 2021). In line with previous research by Kahneman and Riis (2005), results indicate that observed discrepancies between aggregated states and traits are based on the difference between the "experiencing self" and the "remembering self", further supporting the notion of conceptual difference. When utilizing trait measures, individuals have to remember their behavior which might lead to memory bias and convergence with beliefs about the ideal self (Newman et al., 2021). State measures on the other hand tap into the actual experience and behavior in that moment, possible not tainted by recall-bias (Myin-Germeys et al., 2018). Based on this Fleeson and Jayawickreme (2015) go even further and suggest that aggregated state can potentially be a superior way of measuring personality when properly utilized. All in all, these findings might explain the low convergent validity and correlation found in our sample.

Additionally, Fleeson (2001) argues for the importance of collecting the whole distribution of states to reach a good approximation of trait levels, as these are indicative of the general experience over the whole lifespan of an individual (Conner & Barrett, 2012). Thus, research on aggregate or average state scores would need to be conducted over extended periods of time to yield a good approximation of the corresponding trait (Rauthmann et al., 2019). While the current study only considered experiences over one week, other studies that reported strong convergence (e.g. Waring & Kelly, 2019), utilized a three week

time frame. The short duration in our study might thus partially explain the low correlation and future research should therefore consider extended study durations when approximating trait scores through aggregated states.

Finally, the state measures have been constructed for the present research and were not previously validated. Even though de Vries and colleagues (2020) reported in their review that a single item approach we employed is frequently utilized for the measurement of state subjective well-being, literature proposes three distinct dimensions that are relevant for research (Diener et al., 2002). On one hand the cognitive well-being often called life satisfaction – a more evaluative component - which is not commonly used in state research. On the other hand emotional well-being, a combination of negative and positive affect, which is frequently utilized in state research and therefore termed momentary SWB by Bakker and Oelermans (2013). While the single item measure "I feel happy at the moment" does indeed target the emotional component, it does not cover different dimensions of SWB. In line with common practice within the field (e.g. Krieger et al., 2015), future studies should distinguish between positive and negative affect when measuring state subjective well-being to capture the construct more accurately which might increase convergent validity.

For state self-compassion, the single item originated from the original SCS-SF and was adjusted to capture the momentary aspects as suggested by Lie et al. (2019). However, research on self-compassion has repeatedly demonstrated a six dimensional factorial structure with recent research by Neff and colleagues (2021) pointing out the importance of distinguishing these dimensions. Studies have found different associations between the domains of self-compassion and measures of well-being (e.g. Hall et al., 2013; Neff et al., 2021) and point towards the relevance of including these when trying to understand mental processes in depth. Therefore, moving forward we recommend the use of state selfcompassion measures that include all domains as for instance the newly developed SSCS-L (Neff et al., 2021) which could yield better convergent validity.

In summary, the low correlation between average state and trait measures in our study can be explained based on conceptual differences between state and trait measures, the period of state assessment in our study and the construction of state measures. While we cannot expect full convergence, previous studies on state self-compassion and state subjective wellbeing still reported stronger convergent validities. Therefore, results of the present study should be interpreted with some caution and be replicated by additional research with state measures which cover the explored constructs with all its facets.

Main Findings

The moderate correlation between trait self-compassion and trait subjective well-being found in the Meta analysis by Zessin and colleagues (2015) with r = .47, could be replicated and was even larger in our sample with r = .72, showing a strong association between trait levels of both constructs. Additionally, in line with expectations, those higher in trait selfcompassion experienced state self-compassion more frequently, even though differences were small. While we expected that levels of trait self-compassion would be associated with average levels of state self-compassion, this could not be confirmed.

In accordance with previous research on subjective well-being (e.g. Kaczmarek et al., 2015) and self-compassion (e.g. Leary et al., 2007), a considerable fluctuation at the withinperson level was found with more than 50% of the variance in our sample attributed to withinperson differences. This finding further cast doubt on the historical definition of subjective well-being only as a dispositional trait (e.g. Diener, et al., 2002; Veenhoven, 2005) and illustrates the need for extended research into states of both constructs, as well as validated state measures to capture these fluctuating states as recently suggested by Neff and colleagues (2021).

In consideration of daily state scores of participants, results have shown a moderate correlation between average state self-compassion (PM) and average state subjective well-

being (PM). Hence, individuals with higher average state scores of self-compassion, are more likely to experience high average scores of state subjective well-being and vice versa.

A closer look at the within-person and between-person association revealed a weak positive association between state self-compassion and state subjective well-being. Thus, both average state self-compassion and momentary state self-compassion are only weak predictors of state subjective well-being. No statistically significant difference between the predictors could be found. Therefore, considering the between-person level - the momentary fluctuation in state subjective well-being is weakly predicted by overall high or low average state selfcompassion levels of the individual. These results are in line with previous research (Ferrari et al., 2019; Neff et al., 2007), which indicated a positive association at the between-person level and implied a similar association at within-person level while providing no clear prove. Only Krieger et al. (2015) showed similar associations between trait self-compassion and state measures of well-being. Similarly, the momentary fluctuation in state subjective well-being is weakly predicted by the momentary fluctuations of state self-compassion. Individual participants often showed similar movements that further underlined this momentary simultaneous development in both constructs.

As suggested by the broaden and build theory (Fredrickson, 2001), the experience of self-compassion might thus broaden an individual's thought action repertoire and thereby build personal resources like positive affect previously indicated by Odou and Binker (2015). A more positive cognitive mindset could thus - through increased positive affect and more positive evaluations - lead to a rise in momentary subjective well-being. The experience of self-compassion within an individual could thus contribute to a steady development of long term mental health resources as already suggested by Neff and colleagues (2007). Based on our current data however, research should also consider subjective well-being as possible antecedent for self-compassion as suggested by Booker and Dunsmore (2019). Positive mental health and subjective well-being might as well – through positive emotions or

subjective happiness - give rise to self-compassion (e.g. Booker & Dunsmore, 2019; Trompetter et al., 2017). Looking at these previous results that indicated a bidirectional uplifting effect and considering the simultaneous development in our study, it might also be reasonable to assume reciprocal building effects in the development of subjective well-being and self-compassion as recently suggested by Booker and Dunsmore (2019). Therefore, one could view these states as self-perpetuating emergent system fueled by reciprocal causal links (Garland et al., 2010).

As previously suggested by Garland and colleagues (2010) in their extension of the broaden and build theory, this co-evolving network could be fueled by the experience of positive emotions as important additional component (Garland et al., 2010; Booker & Dunsmore, 2019). In line with this suggestion, several studies about the proposed working mechanism (e.g. Odou & Binker, 2015; Trompetter et al., 2017; Diener & Ryan, 2009) have suggested some role of positive emotions within this system. All in all, state self-compassion and state subjective well-being might thus co-evolve, with the promotion of positive emotions driving this system. This network might thus allow individuals to access the benefits of the broaden and build theory, leading to higher levels of well-being and functioning over time. Through this process, enhanced resources might help individuals in the adaptation to major life events and thus reduce their impact.

On the other hand, present results contradict literature on the buffering effect of selfcompassion (e.g. Neff et al., 2007; Odou & Binker, 2014) and results by Falconer and colleagues (2015) who found compensatory increases in state self-compassion for increased negative affect and decreased positive affect. According to theory an individual would have to be especially kind to themselves when faced with difficulties. Considering a buffering effect of self-compassion against negative events (e.g. Leary et al., 2007; Neff et al., 2007), as a result, the individual should be capable of approaching the situation with ease instead of selfjudgment (Neff et al., 2007) and recover quickly (Odou & Binker, 2014). Thus, whenever an

individual experiences momentary low levels of subjective well-being, higher momentary levels of self-compassion should arise to work against the negative experience, leading to a negative within-person association. However, this was not the case as results indicated that individuals high in momentary self-compassion are also likely higher in momentary subjective well-being and vice versa. Compensatory increases in self-compassion could also not be observed as pattern when examining individual cases, casting doubt on the buffering hypothesis for self-compassion on subjective well-being.

In addition, the buffering of self-compassion proposes a recovery effect with timely relive of negative emotions (Odou & Binker, 2014). It is proposed that after self-compassion rises to buffer against negative experiences, negative affect should decrease and thus positively affect subjective well-being. Results of the time lagged analysis however, indicated only a very weak positive association of state self-compassion of the previous moment and state subjective well-being. While research on lagged effects of self-compassion is scarce findings are in line with suggestions by Stutts and colleagues (2018) as well as Zeller and colleagues (2015), proposing a lagged effect of self-compassion in observations over extended periods of time. However, the found association is much smaller in our study and a momentary pattern of recovery could not be identified at the following moment for individuals. As indicated, previous studies that found larger associations, utilized measurements with several weeks in between, while the present study looked at time frames of four hours. This difference might explain a much smaller association. To our knowledge, no study has looked into time lagged effects of self-compassion utilizing ecological momentary assessment, while Odou and Binker (2014) followed up on their self-compassion manipulation after 10 minutes and found a strong recovery effect. Looking at the proposed mechanisms and results by Odou and Binker (2014), future studies should consider shorter time frames when exploring the buffering mechanism of self-compassion. Moreover, buffering and recovery is especially important in moments of despair. To better portray these

particular instances in the data, event based triggering should be implemented. All in all, the momentary association and prediction was stronger when considering both constructs at the same moment, further supporting an immediate effect of state self-compassion on subjective well-being as suggested by Odou and Binker (2014).

While comparing different groups according to their trait scores, no statistically significant difference could be found. However, as the power of the analysis was low based on the number of participants in each group (n = 7) and visual analysis indicated relevant differences, some trends are still worth discussing. Especially the high trait subjective wellbeing group, showed the strongest association while also displaying higher state scores in self-compassion. These results are in line with research by Trompetter and colleagues (2017) who previously suggested, that especially individuals with high mental health, possess self-compassion skills and are able to use them to their advantage. Additionally, findings support the notion of the broaden and build theory, which suggest that positive emotions augment individuals personal resources (Fredrickson et al., 2008) which can lead to an upward spiral effect. This helps to broaden focus and making it more likely to experience positive emotions as well as a self-compassionate state of mind as visible in our data. Additional support stems from research by Buker and Dunsmore (2019), who found that experiences of SWB serve as antecedents to more positive evaluative processes, which could in turn contribute to increased self-compassion.

In summary, results support assumptions of the broaden and build theory and hint at an interplay between self-compassion and subjective well-being that leads to upward spiraling effects for individuals. In practice, self-compassion interventions could thus help to build enduring resources and increase subjective well-being of individuals. Moreover, we observed a stronger association between state self-compassion and state subjective well-being for the low trait self-compassion group. This hints at the possibility that momentary inductions of

state self-compassion – as for example through self-compassionate writing exercises (e.g. Leary et al., 2007) – could be especially beneficial as interventions for this particular group.

Strengths and Limitations

While there is strong support for the association between self-compassion and subjective well-being, literature has failed to distinguish between state and trait definitions of both constructs and evidence for theories on the intrapersonal level is scarce (e.g. de Vries et al., 2020; Zessin et al., 2015). To the best of our knowledge, the present study is the first to utilize EMA to capture both state and trait levels of these variables, allowing to explore the natural fluctuations within individuals in daily life. The unobtrusive and momentary design additionally yields stronger ecological validity than cross sectional design (van Berkel et al., 2017) while advancing our understanding of mental processes in real time. The momentary and time lagged within-person associations and fluctuations, allowed us to explore within-person working mechanisms and collect first clues on this level which can guide future research in the field. Additionally, we provided initial support for mechanisms proposed by the broaden and build theory (Fredrickson et al., 2008) at the within-person level for self-compassion and subjective well-being.

However, some limitations have to be acknowledged. First, based on our studies design, inferences can give us a good indication about associations and how constructs might be related within individuals. However, we cannot draw causal conclusion about working mechanisms and effects as results are based on a nonexperimental study design and are therefore exploratory in nature (Bolger & Laurenceau, 2013). Nevertheless our current results can help guide future research in this domain. Additionally, the small sample in the trait subgroups yielded low statistical power for our analysis of different trait levels. Even though reasonable differences were observable, we could not identify any statically significant differences and results should be replicated with larger sample sizes.

As discussed earlier, both state measures in our study showed weak construct validity when compared to the corresponding trait measures. Therefore, results might not be as accurate and inferences should be drawn with precaution. Future research should consider state measures with several items that allow to capture the different domains of the construct such as the recently developed state self-compassion scale by Neff and colleagues (2021).

Future Research

First of all, the present study confirmed the state properties of self-compassion and subjective well-being with an appreciable within-person fluctuation in daily life. As the accumulation of positive states might help to increase overall subjective well-being and lead to an upward spiral as suggested by Fredrickson et al. (2008), research should continue to explore the development of state self-compassion and subjective well-being in daily life. Further research could – through experimental longitudinal designs – help to establish causal links to gain a full understanding of underlying processes. In doing so, research should also consider subjective well-being as a possible antecedent or co-evolving construct for self-compassion as suggested by Booker and Dunsmore (2019) and further investigate the role of positive emotions (Garland et al., 2010).

Even though our study provided support for the building process proposed, we could not find clear evidence on the buffering mechanism of self-compassion at the within-person level. However, the proposed mechanism should not be dismissed yet. Previous research has pointed towards a buffering effect of self-compassion for several negative outcomes such as anxiety, depression (MacBath & Gumley, 2012) or negative affect (e.g. Trompetter et al., 2017). The current study only measured a positively framed outcome, subjective well-being. Even though low subjective well-being could be viewed as negative state, this might not evoke the same buffering mechanism proposed. Self-compassion might have distinct ways in which it affects measures related to the two distinct continua of mental health (Bohlmeijer & Westerhof, 2021) which should be considered by future research.

Lastly, self-compassion is particularly important in the light of negative life events and its aftermath (Stutts et al., 2018). Therefore, it could be of value to study both constructs over a longer period of time with inquiry about such life events and event based triggering of questionnaires, potentially depicting trends more accurately while especially allowing to shine a light on proposed buffering effects. As indicated by Bolger and Laurenceau (2013), the timing of carry over effects should be considered in detail by study design, as the right timing is paramount to capture mental process across time. We advise future research to choose smaller increments of time for measurement when using event based triggering, as the temporal element of the proposed mechanism is still unclear.

Conclusion

In conclusion, results showed support for the presumed positive association between self-compassion and subjective well-being at the within-person level with appreciable degree of fluctuations in both constructs that should be further considered by research. Moreover, results indicate an uplifting effect of self-compassion and subjective well-being rather than complimentary effects, thus providing initial support for mechanisms of broaden and build theory while challenging assumptions of buffering at the within-person level. However, more targeted research on buffering effects of self-compassion at the within-person level is needed. Still, state self-compassion was associated with increased state subjective well-being, thus further supporting the notion that self-compassion inducing interventions may be beneficial in increasing well-being.

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