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ORIGINAL PAPER

How Self-Compassion Operates within Individuals: An Examination of Latent Profiles of State Self-Compassion in the U.S. and Japan

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Abstract

Objectives Self-compassion is theorized to be a state of mind representing the balance of compassionate self-responding (CS; kindness, common humanity and mindfulness) and uncompassionate self-responding (UCS; self-judgment, isolation and over-identification) in times of distress. However, there is an on-going debate about this conceptualization, with some arguing that CS and UCS operate separately and independently. A variation on this view is that the operation of self-compassion differs by culture: In Eastern dialectic cultures like China and Japan, individuals are thought to experience CS and UCS simultaneously but not in Western non-dialectic cultures like the U.S. Our research investigated this issue by examining how state self-compassion operates within individuals in both the U.S. and Japan.

Method We conducted latent profile analyses of state self-compassion both before ($n = 855$) and after ($n = 455$) a self-compassion mood induction designed to increase CS.

Results In both cultures, individuals were classified into one of three latent profiles only: *Low State Self-Compassion* (low CS and high UCS), *Moderate State Self-Compassion* (moderate CS and UCS), and *High State Self-Compassion* (high CS and low UCS). We did not find any individuals with a profile characterized by simultaneously high levels of CS and UCS. This was true even after a self-compassion mood induction, although the distribution of people in the three profiles changed reflecting a simultaneous increase in CS and decrease in UCS.

Conclusions Results suggest that CS and UCS operate holistically and not independently within individuals in both dialectical and nondialectical cultures.

Preregistration This study is not pre-registered.

Keywords Self-compassion · State self-compassion · Latent profile analyses · Latent transition analyses · Cultural research

Over the past two decades since the Self-Compassion Scale (SCS) was first published to measure self-compassion (Neff, 2003a), thousands of studies have provided evidence for the psychological benefits of this construct (see Neff, 2023 for a review). Neff (2003b) proposed that self-compassion is a state of mind that involves responding to oneself in a caring and supportive way when distressed, whether this distress stems from personal inadequacies and failures or external life challenges. Self-compassion is conceptualized as a multifaceted construct consisting of six elements that operate as a balanced system in response to suffering: increased self-kindness, common humanity and mindfulness and decreased self-judgment, isolation, and over-identification (Neff, 2016). These elements are thought to form a bipolar continuum (Neff, 2022) ranging from uncompassionate self-responding (UCS; self-judgment, isolation, and over-identification) to compassionate self-responding (CS; self-kindness, common humanity, and mindfulness), with a neutral mid-point in between. Although self-compassion is a way of relating to a particular moment of suffering, the SCS measures the general tendency to respond self-compassionately across different types of distressing situations such as "when times are really difficult" or "when I'm feeling inadequate in some way" on a scale of *almost never* to *almost always*.

Several researchers (e.g., López et al., 2015; Muris et al., 2016, 2019) have argued against this conceptualization of self-compassion, instead proposing that CS and UCS are

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separate, independent constructs that should not be conceptualized or measured in a unitary manner (for a summary of these debates see Ferrari et al., 2022a). A variation on this view is that self-compassion operates as a unitary construct in some cultures but as two independent constructs in others (Chio et al., 2021; Wu et al., 2020). In dialectic cultures such as China and Japan (Rosenberger, 1989), people are thought to be more open to the co-occurrence of two contradictory self-aspects (Rosenberger, 1989), including experiencing both positive and negative affect simultaneously (Spencer-Rodgers et al., 2010). Chio et al. (2021) conducted a meta-analysis which indicated that the correlation between CS and UCS was weaker in Eastern dialectic cultures than was found in Western non-dialectic cultures. The authors argued that people in dialectic cultures are more likely to "construe self-warmth and self-coldness as two distinct constructs that can co-exist concurrently" (p. 3) and concluded that increasing self-warmth does not reduce self-coldness in such cultures.

Factor analyses of the SCS have provided support for the view that the six dimensions of self-compassion operate in tandem as a unitary construct. Neff et al. (2019) employed bifactor exploratory structural equation modeling (ESEM) to examine the factor structure of the SCS across 20 diverse Eastern and Western samples and found that in each sample, a model of one general factor (i.e., self-compassion) and six specific factors (i.e., each subscale of the SCS) was found to represent the data better than a model of two distinct CS and UCS factors. Moreover, at least 95% of the variance in item responding could be explained by a single general factor across samples, providing strong support for a view of self-compassion as operating holistically. Tóth-Király and Neff (2021) further showed that the factor structure of the SCS was invariant across cultures.

An alternative approach to examining whether self-compassion operates as a unitary construct or two independent constructs is by considering how the elements of self-compassion are configured within individuals using approaches such as Latent Profile Analysis (LPA; Keefer et al., 2012; Pastor et al., 2007; Spurk et al., 2020). Because self-compassion is conceptualized as a bipolar continuum ranging from UCS to CS (Neff, 2022), from this perspective we would expect that most individuals would tend to be low in scores at one end of the continuum and high on the other, or else to be in-between (i.e., around the zero point on the bipolar continuum), but that fewer would tend to be high in both CS and UCS. Several studies (e.g., Phillips, 2021; Ullrich-French & Cox, 2020) have used LPAs to examine individual profiles of subscale scores on the SCS, and most individuals were classified as having a profile of Low Self-Compassion (high UCS/low CS), Moderate Self-Compassion (moderate UCS/moderate CS), or High Self-Compassion (low UCS/high CS). A smaller number of individuals were found to be high in both CS and UCS. Phillips (2021) examined two samples (community adults and undergraduates) in Australia and found no individuals who fit this profile. Ullrich-French and Cox (2020) examined three samples of undergraduates in the U.S. and identified 5% who were high in both UCS and CS in one sample only. Ferarri et al. (2022b) examined latent profiles in adolescents in Australia and found that no males and 16% of females displayed this pattern. Wei et al. (2022) examined adult cancer patients in China and found 8% were high in CS and UCS while Wu et al. (2021) found that 10% of Chinese undergraduates displayed this profile. Wu et al. (2020) conducted analyses of individual SCS items rather than subscale scores, but after re-analyzing results based on subscale scores (readers can contact the first author for the results), no individuals were found to be high in both CS and UCS.

The finding that some individuals display a profile of high CS and high UCS may stem from examining trait levels of self-compassion using the SCS. People may be self-compassionate in certain circumstances (e.g., when faced with external challenges) yet uncompassionate in others (e.g., when confronting personal failures). While people who are sometimes compassionate and other times uncompassionate might be expected to provide responses to CS and UCS items at the midpoint of the scale (e.g., between *almost never* and *almost always*) and therefore be classified into a profile of Moderate Self-Compassion, certain individuals may respond that they are often compassionate and uncompassionate (i.e., above the midpoint of the scale) and be classified as High in CS and UCS. If so, this would not necessarily mean that they experience CS and UCS concurrently in any particular situation. In order to understand whether CS and UCS operate in tandem or independently, or whether individuals in dialectical cultures experience CS and UCS simultaneously, it is necessary to examine state rather than trait self-compassion.

State self-compassion refers to how individuals are currently relating to themselves regarding a particular distressing situation. Neff et al. (2021) recently developed the State Self-Compassion Scale (SSCS) that measures the extent to which the six dimensions of self-compassion describe individuals' current mindset when focusing on a single situation of suffering—either particular feelings of inadequacy or a challenging situation happening in one's life. Across multiple studies conducted with U.S. samples, the factor structure of the SSCS was best represented as one general factor and six specific factors rather than two general factors representing CS and UCS (Neff et al., 2021). This factor structure was obtained both before and after an experimental mood manipulation that asked participants to write a paragraph evoking mindfulness, common humanity, and self-kindness when focusing on the situation, indicating that this factor structure was stable even when the degree of self-compassion

changed. Miyagawa et al. (2022) created a Japanese translation of the SSCS and replicated these results.

In both the U.S. and Japan, moreover, state CS and UCS were found to change simultaneously. Neff et al. (2021) found that among those given a self-compassion mood manipulation designed to increase CS (self-kindness, common humanity, and mindfulness), self-kindness increased 10.4% and self-judgment decreased 10.4%; common humanity increased 11.6% percent and isolation decreased 11.4%; mindfulness increased 9.2% and over-identification decreased 8.4%. Similarly, Miyagawa et al. (2022) found self-kindness increased 30% and self-judgment decreased 28%, common humanity increased 24% and isolation decreased 31%, and mindfulness increased 24% while over-identification decreased 29%. These findings support the view that state CS and UCS operate in tandem as a unitary construct, and that increasing CS decreases UCS even in dialectical cultures.

Because Neff et al. (2021) and Miyagawa et al. (2022) used a variable-centered approach, however, it is possible that a pattern of simultaneously experiencing state CS and UCS occurred for some individuals but that this pattern couldn't be detected when examining mean variable scores. To examine this issue, the current study used LPA to clarify how the components of state self-compassion were configured within individuals employing the data used to validate the SSCS in the U.S. (Neff et al., 2021) and Japan (Miyagawa et al., 2022).

First, we examined participants' profiles of responding at baseline before the self-compassion mood manipulation. If CS and UCS operate separately and independently as certain researchers have argued (e.g., López et al., 2015; Muris et al., 2016, 2019), we should find some individuals who simultaneously engage in state CS and UCS when focusing on their distressing situation. Or if as others have argued (e.g., Chio et al., 2021; Wu et al., 2020), CS and UCS operate independently in dialectical cultures, a larger number of individuals should display a pattern of high state CS and UCS in Japan than in the U.S. We also examined the subset of participants who received a self-compassion mood manipulation to determine if the balance of CS and UCS changed after participants were instructed to be mindful, remember common humanity, and be kind to themselves when considering their distressing situation. If CS and UCS operate independently, we would expect some to remain high in UCS even after receiving the manipulation, given that the manipulation explicitly focused on CS, not UCS. If they operate holistically, however, meaning that CS and UCS naturally operate in tandem, we would expect those individuals who increase in CS to simultaneously decrease in UCS even without an explicit UCS manipulation.

Given our view that self-compassion operates holistically, we expected that few (if any) individuals in either culture would display a pattern of high state CS and UCS at baseline. Rather, we expected that participants would fall into one of three groups: *Low State Self-Compassion* (high UCS/low CS), *Moderate State Self-Compassion* (moderate UCS/moderate CS), and *High State Self-Compassion* (low UCS/high CS). After receiving a self-compassion mood manipulation, we expected that we would still only find these same three groups. However, we expected some in the *Low State Self-Compassion* profile to move into the *Moderate* or *High State Self-Compassion* profiles, and some in the *Moderate State Self-Compassion* profile to move into the *High State Self-Compassion* profile.

Method

Participants

We re-analyzed data from Neff et al. (2021; Study 2) in the U.S. and Miyagawa et al. (2022; Study 2) in Japan. Participants in the U.S. were undergraduates at a large Southwestern university ($n = 232$ in the experimental condition; $n = 179$ in the control condition), with 411 included at baseline and 232 after the mood manipulation. Participants averaged 20.60 years old ($SD = 1.96$), ranging from 18 to 30. Participants self-identified as men (31.1%), women (67.2%), or neither (1.7%). Participants in Japan were adult community members ($n = 223$ in the experimental condition; $n = 251$ in the control condition), with 474 included at baseline and 223 after the mood manipulation. Participants averaged 41.96 years old ($SD = 9.61$), ranging from 20 to 76 and self-identified as men (48.5%) or women (51.5%). There were no missing values for the SSCS in the dataset.

Both studies (Miyagawa et al., 2022; Neff et al., 2021) were approved by local Institutional Review Boards prior to data collection. Informed consent was obtained from all participants.

Procedure

The same procedure was followed in the U.S. and Japan, unless otherwise indicated. The instructions were provided to the U.S. participants in English and Japanese participants in Japanese. At the beginning of the study, participants were instructed to "think about a particular situation you are experiencing right now that is painful or difficult. It could be some struggle in your life, or perhaps you are feeling inadequate in some way. Please don't think of a situation in which you are upset with someone else, but instead think of a situation where you are feeling badly about yourself or else you are going through a hard time. Decide on a single situation that you will focus on throughout this study." Next, participants completed the

SSCS items while considering that situation. The instruction was "Please indicate how well each statement applies to how you are feeling toward yourself right now as you think about this situation."

Note that situational difficulty was also measured. In the U.S., participants indicated how difficult their situation was on a 5-point scale ranging from 1 (*a little difficult*) to 5 (*extremely difficult)*: $M = 3.31$, $SD = 0.89$. In Japan, participants rated an item of "This event makes me suffer" on a 5-point scale ranging from 1 (*not at all true for me*) to 5 (*very true for me)*: $M = 4.46$, $SD = 0.72$.

Subsequently, participants were randomly assigned to either a self-compassion mood manipulation or a control writing condition. Participants receiving the self-compassion mood manipulation were asked to write about their painful situation in a compassionate way. Specifically, they were asked to write a paragraph that prompted mindfulness (i.e., validating inner feelings and thoughts), a paragraph that prompted feelings of common humanity (i.e., recognizing the connection between their own and others' experiences), and a paragraph that prompted self-kindness (i.e., expressing warmth, support and caring) in response to their situation. Examples were given after each prompt. Participants were also asked to reflect on what they had written so they could absorb it further. After engaging in the self-compassion writing task, participants once again were given the instruction "Please indicate how well each statement applies to how you are feeling toward yourself right now as you think about this situation" and were given the SSCS items. (Please see Miyagawa et al., 2022 and Neff et al., 2021, for more details of the procedure.)

Measures

State Self-Compassion

The SSCS has 18 items that measure current levels of self-compassionate responding when focusing on a painful situation. This scale was developed and validated by Neff et al. (2021), and the Japanese translation was developed and validated by Miyagawa et al. (2022). At baseline and after the mood manipulation, participants were asked to report how compassionately they were responding to themselves at the moment in terms of the six dimensions of self-compassion on a 5-point scale ranging from 1 (*not at all true for me*) to 5 (*very true for me*). Example items are "I'm giving myself the caring and tenderness I need," and "I see my difficulties as part of life that everyone goes through." Each subscale—self-kindness, common humanity, mindfulness, self-judgment, isolation, and over-identification—contained three items and a mean score was taken for each subscale. A total SSCS score was calculated after reverse-coding UCS items.

Data Analyses

We first computed descriptive statistics, Cronbach's alpha coefficients, and McDonald's omega coefficients for SSCS scores at baseline and after the mood induction separately for the U.S. and Japan. We then conducted latent profile analyses of the SSCS using M*plus* version 8.7. We evaluated plausible models and determined the best one based on model fit and interpretability (Ferguson et al., 2020). Specifically, we gradually increased the number of latent profiles (through 1 to 5), and contrasted models with k latent profiles with the models with $k+1$ latent profiles in terms of model fit indices, parsimony, and interpretability. Regarding the model fit indices, we used the Akaike information criterion (AIC), Bayesian information criterion (BIC), and sample-adjusted Bayesian information criterion (SABIC). Lower values for these indicators were taken as a better fit. Additionally, we examined the Elbow Plot graphs of these values (Marsh et al., 2009). If slopes of these values became flat at a model, this indicated that this model was better than the alternatives (Morin et al., 2016). Regarding the parsimony of the model, we used the adjusted Lo-Mendell-Rubin likelihood ratio test (LMR; Lo et al., 2001) and a percentage of obtained profiles (Ferguson et al., 2020). The non-significant p-value of the LMR at a model with $k+1$ latent profiles indicated that a model with k latent profiles was taken as a better fit in terms of parsimony. Additionally, if the smallest profile contained less than 5% of participants, then this model was rejected for parsimony (Ferguson et al., 2020). Furthermore, we adopted the final model in terms of interpretability, as well as these statistical indicators (Lanza & Collins, 2008; Morin et al., 2016).

To determine whether the profiles significantly differed from one another in levels of state self-compassion, we conducted follow-up multivariate analyses of variance (MANOVAs) using SPSS version 27. Specifically, we compared the six subscales and the total score of the SSCS obtained by participants displaying different latent profiles within each country.

After confirming the profiles at baseline and after the mood manipulation, we conducted latent transition analyses (Lanza & Collins, 2008) for those receiving the self-compassion mood manipulation separately for the U.S. and Japan. These analyses allowed us to see whether there was a transition of membership from one group to another (Lanza & Collins, 2008) due to the experimental manipulation.

Results

Table 1 represents the descriptive statistics of the SSCS at baseline (for all study participants) and after the self-compassion mood manipulation (for those participants assigned to the experimental condition only).

In the U.S., the skewness and kurtosis for these subscales were acceptable at both assessments (-0.63 < skewness < 0.89, -0.70 < kurtosis < 0.60). In Japan, the skewness and kurtosis were also in acceptable ranges at both assessments (-0.72 < skewness < 0.66, -0.77 < kurtosis < 0.26). Cronbach's alpha coefficients and McDonald's omega coefficients were acceptable in both countries. Therefore, we proceeded to LPAs using the mean scores of each subscale.

Latent Profiles of State Self-Compassion at Baseline

Table 2 summarizes the results of LPAs for the SSCS at baseline assessment in both the U.S. and Japan. Table 3 displays SSCS means for each obtained profile in both samples.

U.S. Sample

As shown in Table 2, goodness-of-fit indices obtained for U.S. participants gradually declined as the number of latent profiles increased. However, the Elbow Plot of these indices showed that the slopes became relatively flat at the model with three latent profiles (Fig. 1). Additionally, the adjusted LMR suggested that a three-profile solution fit better than either a two-profile or four-profile solution. The entropy value was 0.786 in the three-profile model, suggesting that about 80% of participants were correctly classified into their appropriate profiles (Clark & Muthén, 2009).

As shown in Table 3, Profile 1 consisted of 152 participants (37.0%) and described relatively low levels of CS (i.e., self-kindness, common humanity, and mindfulness) and high levels of UCS (i.e., self-judgment, isolation, and over-identification). Therefore, we labeled this profile as *Low State Self-Compassion*. Profile 2 included 192 participants (46.7%) who indicated relatively moderate levels of CS and UCS and was labeled as *Moderate State Self-Compassion*. Profile 3 was comprised of 67 participants (16.3%) who showed relatively high levels of CS and low levels of UCS and was named *High State Self-Compassion*. A follow-up MANOVA revealed significant differences in SSCS scores among the three latent profiles with a large effect size (Wilks' $\lambda = 0.17$, $F\ (12,\ 806) = 97.89$, $p < 0.001$, $\eta_p^2 = 0.593$). Univariate ANOVAs found that SSCS total and subscale scores differed in the expected directions. The *High State Self-Compassion* profile displayed the highest scores for the three CS subscales and the lowest for the three UCS subscales, as well as the highest total SSCS scores. In contrast, the *Low State Self-Compassion* profile was lowest in CS and highest in UCS as well as the lowest in total self-compassion, with *Moderate State Self-Compassion* falling in between.

Japanese Sample

As shown in Table 2, a similar number of latent profiles was obtained in Japan as was obtained in the U.S. Specifically, whereas AIC, BIC, and SABIC continued to decrease in

Table 1 Descriptive Statistics of the Six Subscales and Total Score of the SSCS in the U.S. and Japan

	U.S.						Japan					
	α	*ω*	*M*	*SD*	Skewness	Kurtosis	*α*	*ω*	*M*	*SD*	Skewness	Kurtosis
Baseline												
Total self-compassion	0.883	0.938	3.06	0.66	0.27	-0.28	0.897	0.956	2.82	0.68	0.33	0.00
Self-kindness	0.820	0.880	2.95	0.87	0.14	-0.36	0.825	0.867	2.84	0.91	0.25	-0.41
Common humanity	0.694	0.754	3.33	0.91	-0.10	-0.57	0.847	0.885	3.01	1.03	-0.16	-0.77
Mindfulness	0.724	0.779	3.06	0.79	0.38	-0.09	0.780	0.830	2.81	0.90	0.14	-0.29
Self-judgment	0.713	0.793	3.16	0.95	-0.21	-0.61	0.772	0.859	3.07	0.93	-0.23	-0.56
Isolation	0.682	0.753	2.81	1.01	0.16	-0.70	0.786	0.860	3.34	1.03	-0.33	-0.70
Over-identification	0.672	0.740	3.02	0.92	-0.01	-0.61	0.756	0.822	3.35	0.91	-0.32	-0.35
After Mood Induction												
Total self-compassion	0.924	0.968	3.58	0.70	-0.28	0.01	0.921	0.968	3.61	0.67	-0.46	-0.21
Self-kindness	0.871	0.921	3.46	0.91	-0.17	-0.38	0.836	0.920	3.75	0.76	-0.57	0.26
Common humanity	0.824	0.884	3.94	0.84	-0.63	-0.01	0.833	0.901	3.71	0.90	-0.72	0.04
Mindfulness	0.826	0.892	3.52	0.80	-0.09	-0.35	0.785	0.844	3.54	0.78	-0.43	-0.19
Self-judgment	0.796	0.863	2.63	0.95	0.25	-0.48	0.831	0.887	2.29	0.90	0.66	-0.16
Isolation	0.794	0.858	2.24	0.95	0.89	0.60	0.836	0.905	2.47	1.02	0.49	-0.55
Over-identification	0.733	0.799	2.58	0.91	0.27	-0.31	0.726	0.812	2.56	0.83	0.33	-0.26

At baseline, $n = 411$ in the U.S. and $n = 474$ in Japan; After mood induction, $n = 232$ in the U.S. and $n = 223$ in Japan

Note that UCS items were reverse-coded before calculating a total self-compassion score. McDonald's omega coefficients were calculated based on the bifactor exploratory structural equation modeling of the SSCS

Table 2 Model Fit Summary from the LPAs of the State Self-Compassion Scale at Baseline

	Log likelihood	AIC	BIC	SABIC	Entropy	Smallest class %	Adjusted LMR *p*-value
Class enumeration: U.S.							
One profile	-3251.117	6526.234	6574.457	6536.379			
Two profiles	-2939.406	5916.812	5993.165	5932.874	0.818	37.5%	$p < 0.001$
Three profiles	-2857.724	5767.448	5871.931	5789.428	0.786	16.3%	$p = 0.001$
Four profiles	-2827.645	5721.290	5853.903	5749.188	0.751	14.1%	0.348
Five profiles	-2805.011	5690.022	5850.766	5723.838	0.757	6.1%	0.429
Class enumeration: Japan							
One profile	-3885.485	7794.970	7844.904	7806.818			
Two profiles	-3564.069	7166.139	7245.201	7184.898	0.837	28.7%	$p < 0.001$
Three profiles	-3463.283	6978.566	7086.758	7004.238	0.795	19.4%	$p < 0.001$
Four profiles	-3427.486	6920.971	7058.291	6953.554	0.758	12.7%	0.108
Five profiles	-3405.036	6890.073	7056.521	6929.567	0.778	3.4%	0.069

$n = 411$ in the U.S. and $n = 474$ in Japan; LPA = latent profile analysis; AIC = Akaike's Information Criterion; BIC = Bayesian Information Criterion; SABIC = Sample-Adjusted BIC; LMR = Lo-Mendell Ruben

model with more profiles, the Elbow Plot graph suggested a three-profiles solution as the decline became relatively flat (Fig. 2). The adjusted LMR became non-significant for the four-profile solution, suggesting that a model with three profiles fit better. Additionally, the entropy value was 0.795, which was satisfactory (Clark & Muthén, 2009). Therefore, we adopted the three-profile model of state self-compassion in Japan.

As shown in Table 3, Profile 1 was composed of 111 participants (23.4%) and represented relatively low levels of CS and high levels of UCS (*Low State Self-Compassion*). Profile 2, composed of 271 participants (57.2%),

Table 3 Mean Differences in State Self-Compassion Scores between Profiles (within Culture) at Baseline

	Profile 1 (Low state SC) 37% U.S.; 23% Japan		Profile 2 (Moderate state SC) 47% U.S.; 57% Japan		Profile 3 (High state SC) 16% U.S.; 19% Japan		ANOVA		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*	η_p^2
U.S.									
Total self-compassion	2.39_a	0.29	3.23_b	0.27	4.09_c	0.33	864.44	$p < 0.001$	0.81
Self-kindness	2.22_a	0.55	3.15_b	0.62	4.03_c	0.59	240.86	$p < 0.001$	0.54
Common humanity	2.91_a	0.82	3.44_b	0.83	3.98_c	0.83	41.73	$p < 0.001$	0.17
Mindfulness	2.44_a	0.48	3.13_b	0.53	4.25_c	0.51	300.10	$p < 0.001$	0.60
Self-judgment	3.86_a	0.69	3.02_b	0.75	2.01_c	0.62	165.75	$p < 0.001$	0.45
Isolation	3.62_a	0.81	2.54_b	0.71	1.76_c	0.74	166.96	$p < 0.001$	0.45
Over-identification	3.76_a	0.63	2.81_b	0.71	1.95_c	0.57	192.97	$p < 0.001$	0.49
Japan									
Total self-compassion	1.98_a	0.29	2.81_b	0.30	3.84_c	0.36	918.77	$p < 0.001$	0.80
Self-kindness	1.97_a	0.55	2.88_b	0.71	3.79_c	0.75	176.81	$p < 0.001$	0.43
Common humanity	2.41_a	0.94	3.04_b	0.97	3.63_c	0.95	40.94	$p < 0.001$	0.15
Mindfulness	1.87_a	0.55	2.84_b	0.64	3.87_c	0.66	259.76	$p < 0.001$	0.52
Self-judgment	4.03_a	0.55	3.07_b	0.65	1.91_c	0.61	296.54	$p < 0.001$	0.56
Isolation	4.22_a	0.63	3.40_b	0.80	2.10_c	0.78	197.76	$p < 0.001$	0.46
Over-identification	4.14_a	0.63	3.41_b	0.67	2.22_c	0.65	212.91	$p < 0.001$	0.47

Means in each row that share subscripts do not differ significantly at $p < 0.001$. SC = self-compassion. Note that UCS items were reverse-coded before calculating a total self-compassion score

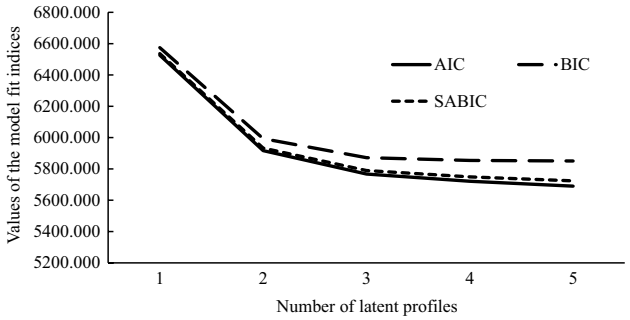

Fig. 1 Changes of Model Fit Indices of the Baseline Measure of the State Self-Compassion Scale in the U.S

described relatively moderate levels of both types of self-responding (*Moderate State Self-Compassion*). Finally, Profile 3, including 92 participants (19.4%), was characterized by relatively high levels of CS and low levels of UCS (*High State Self-Compassion*). As expected, a follow-up MANOVA conducted for the Japanese sample revealed significant differences in the six subscales and total score of the SSCS among the latent profiles with a large effect size (Wilks' $\lambda = 0.17$, F (12, 932) = 108.45, $p < 0.001$, $\eta_p^2 = 0.583$). Univariate ANOVAs found that SSCS total and subscale scores differed in the expected directions. Similar to results in the U.S., individuals in the *High State Self-Compassion* group reported the highest scores on the three CS subscales and total SSCS and the lowest on the three UCS subscales. Conversely, individuals in the *Low State Self-Compassion* group reported the lowest scores on the three CS subscales and total SSCS and the highest on the three CS subscales. Individuals with *Moderate State Self-Compassion* fell between these two groups.

Note that we also ran all our MANOVA analyses while controlling for age and sex as covariates, and found that results were almost identical. (Please contact the first author for the results if interested).

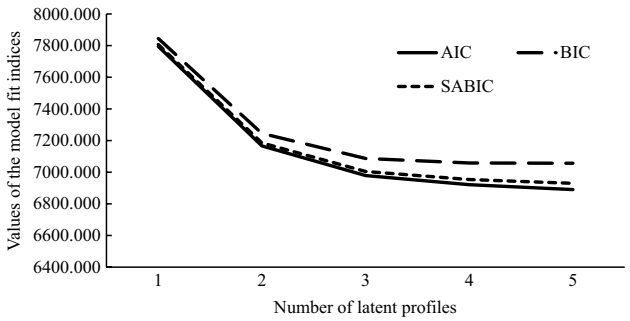

Fig. 2 Changes of Model Fit Indices of the Baseline Measure of the State Self-Compassion Scale in Japan

Latent Profiles of State Self-Compassion after a Self-Compassion Mood Manipulation

Table 4 summarizes the results of LPAs for those who received a self-compassion mood manipulation. Whereas AIC, BIC, and SABIC continued to decrease as the number of latent profiles increased, the slopes of changes in these indicators flattened off after a three-profile solution in both the U.S. and Japan (Figs. 3 and 4). The adjusted LMR suggested a four-profile model in the U.S. (see Supplementary Online Table S1): low SC (high UCS and low CS), moderate SC (moderate UCS and CS), high SC (low UCS and high CS), and very high SC (low UCS and very high CS). Given that the high SC and very high SC profiles were not theoretically distinct for the purposes of our study, we adopted the three-profiles model in the U.S. The adjusted LMR tested provided evidence for a three-profile solution in Japan. In the three-profiles model, entropy values suggested about 85% of participants in both countries were classified into their appropriate profiles.

The same three profiles of state self-compassion found at baseline were replicated in both cultures after the self-compassion mood manipulation. As shown in Table 5, profile 1 (*Low State Self-Compassion*) described relatively low levels of CS and high levels of UCS ($n = 26$, 11.2% in the U.S.; $n = 31$, 13.9% in Japan). Profile 2 (*Moderate State Self-Compassion*) represented relatively moderate levels of these two types of self-responding ($n = 114$, 49.1% in the U.S.; $n = 72$, 32.3% in Japan). Finally, profile 3 (*High State Self-Compassion*) was characterized by relatively high levels of CS and low levels of UCS ($n = 92$, 39.7% in the U.S.; $n = 120$, 53.8% in Japan). In both countries, follow-up MANOVAs revealed that observed mean differences among latent profiles in total SSCS scores and subscale scores were significant with a large effect size and occurred in the expected directions: Wilks' $\lambda = 0.17$, F (12, 448) = 51.95, $p < 0.001$, $\eta_p^2 = 0.582$ in the U.S., Wilks' $\lambda = 0.16$, F (12, 432) = 54.53, $p < 0.001$, $\eta_p^2 = 0.603$ in Japan.

Table 6 illustrates the transition probabilities of being categorized into a different profile after receiving a self-compassion mood manipulation in the U.S. and Japan. As expected, in both the U.S. and Japan, we found transitions from the *Low State Self-Compassion* profiles to the *Moderate* or *High State Self-Compassion* profiles and from the *Moderate State Self-Compassion* profile to the *High State Self-Compassion* profile.

Discussion

There is an on-going debate about whether the elements of self-compassion operate as a system to form a unitary construct, or if they form two distinct constructs of CS and UCS

Table 4 Model Fit Summary from the LPAs of the State Self-Compassion Scale After Mood Induction

	Log likelihood	AIC	BIC	SABIC	Entropy	Smallest class %	Adjusted LMR *p*-value
Class enumeration: U.S.							
One profile	-1811.895	3647.790	3689.150	3651.117			
Two profiles	-1593.555	3225.110	3290.598	3230.379	0.844	49.6%	$p < 0.001$
Three profiles	-1522.368	3096.736	3186.352	3103.945	0.866	11.2%	0.021
Four profiles	-1496.955	3059.911	3173.653	3069.060	0.832	10.3%	0.036
Five profiles	-1474.972	3029.943	3167.813	3041.034	0.797	15.5%	0.509
Class enumeration: Japan							
One profile	-1693.808	3411.617	3452.503	3414.473			
Two profiles	-1472.126	2982.252	3046.988	2986.775	0.889	33.2%	$p < 0.001$
Three profiles	-1419.694	2891.387	2979.974	2897.576	0.842	13.9%	$p < 0.001$
Four profiles	-1393.228	2852.456	2964.893	2860.312	0.806	13.0%	0.565
Five profiles	-1371.550	2823.100	2959.387	2832.622	0.830	6.7%	0.300

$n = 232$ in the U.S. and $n = 223$ in Japan; LPA = latent profile analysis; AIC = Akaike's Information Criterion; BIC = Bayesian Information Criterion; SABIC = Sample-Adjusted BIC; LMR = Lo-Mendell Ruben

that operate independently (e.g., Muris et al., 2019; Neff, 2022). Moreover, some have argued that the way self-compassion operates varies according to cultural factors such as dialecticism (Chio et al., 2021). Most research designed to examine this debate has focused on trait self-compassion and employed a variable-centered approach (Chio et al., 2021; Muris et al., 2016, 2019; Neff et al., 2018; Tóth-Király & Neff, 2021). The current study examined the issue in a novel manner: by focusing on state self-compassion using a person-centered approach. Because self-compassion is a mind state that arises in response to a particular instance of suffering, it is necessary to examine how state self-compassionate is configured within individuals when focusing on a current difficulty to truly understand whether CS and UCS operate separately or in tandem.

As to our main research question concerning whether individuals simultaneously experience CS and UCS indicating their independence (López et al., 2015; Muris et al., 2016, 2019), especially in a dialectical culture like Japan

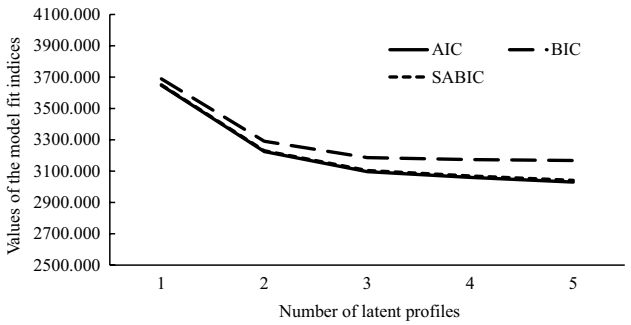

Fig. 3 Changes of Model Fit Indices of the State Self-Compassion Scale After Mood Induction in the U.S

(Chio et al., 2021; Wu et al., 2020), the answer appears to be no. We found that participants were classified into one of three latent profiles with configural similarity (Morin et al., 2016) both in the U.S. and Japan, both before and after a self-compassion mood manipulation which explicitly prompted CS: *Low State Self-Compassion* (high UCS/low CS), *Moderate State Self-Compassion* (moderate UCS/CS), and *High State Self-Compassion* (low UCS/high CS). We did not find a latent profile characterized by high levels of CS and UCS in either the U.S. or Japan. Rather than operating independently, results support a view of self-compassion as forming a bipolar continuum ranging from UCS to CS (Neff, 2022). Individuals tend to be high at one end of the continuum and low at the other, or else at the midpoint of the two poles, but they are not simultaneously high in both.

Our results also indicated that many people changed their pattern of responding after they were asked to relate to their difficult situation with mindfulness, common humanity and kindness. In both the U.S. and Japan, a larger percentage of participants displayed the *High State Self-Compassion* profile after receiving a self-compassion mood manipulation (40% U.S.; 54% Japan) compared with baseline (16% U.S.; 19% Japan). Similarly, a smaller percentage displayed the *Low State Self-Compassion* profile after the mood manipulation (11% U.S.; 14% Japan) compared with baseline (37% U.S.; 23% Japan).

Furthermore, latent transition analyses suggested that people were likely to transition to a profile with higher levels of CS and lower levels of UCS after the mood manipulation. In the U.S., individuals in the *Low State Self-Compassion* profile at baseline had a 45% chance of transitioning to the *Moderate State Self-Compassion* profile and a 21% chance of transitioning to the *High State Self-Compassion* profile.

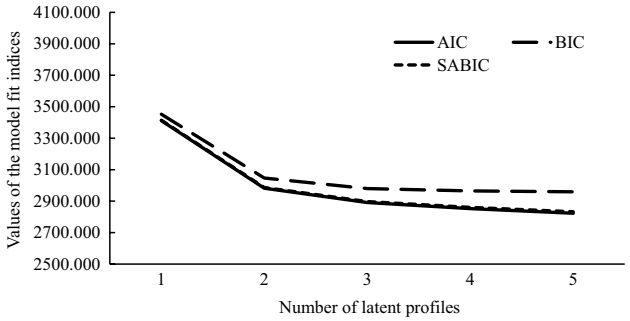

Fig. 4 Changes of Model Fit Indices of the State Self-Compassion Scale After Mood Induction in Japan

Individuals in *Moderate State Self-Compassion* profile at baseline had a 38% chance of transitioning to the *High State Self-Compassion* profile. While almost all U.S. participants in the *High State Self-Compassion* profile remained in the same group (as would be expected given a ceiling effect), there was 3% chance that they moved to the *Moderate Self-Compassion* profile. It is unclear why this was the case, but it may be that a few participants became more aware of ways they were responding uncompassionately to themselves after thinking about it more closely.

Although Japan has been described as a dialectical culture in which CS and UCS are experienced simultaneously, results were highly similar to those found in the U.S. Participants initially low in self-compassion had a 37% chance of moving to the moderate group and a 40% chance of moving to the high group after the CS manipulation. Those displaying *Moderate State Self-Compassion* at baseline had a 64% chance of transitioning to the high self-compassion profile after the mood manipulation. These findings suggest that the mood manipulation was effective in both cultures. Importantly, given that the structure of profiles was consistent at baseline and after explicitly prompting CS, individuals did not appear to increase in CS without simultaneously decreasing in UCS: they changed in tandem.

Our results align with other findings examining trait self-compassion using a person-centered approach which have classified most people as displaying a profile of Low, Moderate or High Trait Self-Compassion. A smaller number of individuals have been classified as being high in both trait UCS and CS in Western nondialectical (Ferarri et al., 2022b; Phillips, 2021; Ullrich-French & Cox, 2020) and Eastern dialectical cultures (Wei et al., 2022; Wu et al., 2020, 2021). Further research will be needed to understand why some people are classified into a profile of high trait UCS and CS. This pattern may be due to meaningful personality differences, but it may also be the result of measurement error. It is likely that many people are compassionate in some situations and not others. However, some of these people may

Table 5 Mean Differences in State Self-Compassion Scores Between Profiles (Within Culture) After Mood Induction

	Profile 1 (Low state SC) 11% U.S.; 14% Japan		Profile 2 (Moderate state SC) 49% U.S.; 32% Japan		Profile 3 (High state SC) 40% U.S.; 54% Japan		ANOVA		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*	η_p^2
U.S.									
Total self-compassion	2.36_a	0.37	3.32_b	0.31	4.25_c	0.34	406.10	$p<0.001$	0.78
Self-kindness	2.01_a	0.49	3.13_b	0.50	4.28_c	0.54	244.04	$p<0.001$	0.68
Common humanity	3.15_a	1.06	3.68_b	0.68	4.50_c	0.58	54.11	$p<0.001$	0.32
Mindfulness	2.38_a	0.50	3.18_b	0.47	4.27_c	0.47	218.25	$p<0.001$	0.66
Self-judgment	3.99_a	0.61	2.82_b	0.72	2.00_c	0.74	86.83	$p<0.001$	0.43
Isolation	3.76_a	0.95	2.43_b	0.68	1.58_c	0.58	111.84	$p<0.001$	0.49
Over-identification	3.64_a	0.72	2.81_b	0.74	1.99_c	0.72	62.75	$p<0.001$	0.35
Japan									
Total self-compassion	2.43_a	0.28	3.29_b	0.24	4.11_c	0.32	474.53	$p<0.001$	0.81
Self-kindness	2.48_a	0.52	3.66_b	0.59	4.13_c	0.49	123.14	$p<0.001$	0.53
Common humanity	2.68_a	0.79	3.49_b	0.76	4.11_c	0.72	50.17	$p<0.001$	0.31
Mindfulness	2.55_a	0.59	3.17_b	0.63	4.02_c	0.48	112.06	$p<0.001$	0.50
Self-judgment	3.72_a	0.56	2.63_b	0.67	1.71_c	0.47	181.69	$p<0.001$	0.62
Isolation	3.96_a	0.65	2.97_b	0.75	1.79_c	0.56	173.50	$p<0.001$	0.61
Over-identification	3.45_a	0.73	2.94_b	0.65	2.09_c	0.63	72.28	$p<0.001$	0.40

Means in each row that share subscripts do not differ significantly at $p<0.001$. SC = self-compassion. Note that UCS items were reverse-coded before calculating a total self-compassion score

Table 6 Transition Probabilities of the Profile Membership After a Self-Compassion Mood Induction

At Baseline	After Mood Induction		
U.S.	Low state SC	Moderate state SC	High state SC
Low state SC	0.337	0.455	0.208
Moderate state SC	0	0.617	0.383
High state SC	0	0.034	0.966
Japan	Low state SC	Moderate state SC	High state SC
Low state SC	0.228	0.371	0.401
Moderate state SC	0	0.356	0.644
High state SC	0	0	1

SC = self-compassion. The diagonal values represent the proportion of individuals who remained in the same group at two measurement times. The off-diagonal values indicated the proportion of duals who transited from a group at baseline to the other groups after a self-compassion mood manipulation

respond to CS and UCS items at the midpoint of the scale (e.g., *sometimes*) and therefore be classified as Moderate Self-Compassion, while others may respond at the high end of the scale (e.g., *often*) to both CS and UCS items and be classified as High CS/UCS. Regardless, our results suggest that the state SCS is a more precise way to understand how self-compassion operates in real time than the trait SCS, which requires respondents to generalize across situations.

Our results are also consistent with neurological findings. A study by Kim et al. (2020) used fMRI imagery to examine reactions to negative emotional stimuli. They found that uncompassionate self-responding increased activity in the anterior insula, anterior cingulate, and the amygdala, and that compassionate self-responding suppressed activity in these very same regions. As individuals increase in CS, they decrease in UCS.

In summary, we did not identify any individuals who were simultaneously compassionate and uncompassionate to themselves either before or after a self-compassion mood manipulation in both a dialectical and nondialectical culture. Moreover, as individuals increased in CS they decreased in UCS, suggesting movement along a continuum. Our results speak directly to the debate over whether self-compassion operates as a unitary construct or not. Self-compassion appears to operate as a unitary construct when individuals relate to a particular situation of suffering.

Limitations and Future Directions

Our research had certain limitations. First, data were collected with undergraduate students in the U.S. and community participants in Japan, and further investigation is needed to determine if findings replicate in other Eastern and Western cultures in other age and socio-economic groups. Furthermore, we did not directly measure dialecticism to see if this trait interacted with the operation of state CS and UCS, and future research might benefit from doing so. Future researchers may also want to examine other cultural factors, such as independent and interdependent self-construal (Markus & Kitayama, 2010) or collectivism and individualism (Hofstede, 2001) to determine if they are playing a role. There are surely important cultural differences in how individuals apply self-compassion to their experience, although it may be that these differences lie not so much in how self-compassion operates but rather in how often and in what type of situations self-compassion is applied. Finally, Cronbach's alpha coefficients for common humanity, isolation, over-identification subscales at baseline in the U.S. were close to but lower than a common criterion of 0.700 (Nunnally, 1978). These relatively low coefficients likely stem from the fact that each subscale only had three items (Cortina, 1993). Alpha coefficients were satisfactory after the mood manipulation in the U.S. sample, perhaps because participants became clearer about their thoughts and feelings. Nonetheless, caution should be exercised when interpreting results at baseline in the U.S. because measurement error may have affected results.

The debate over how self-compassion operates is not merely an academic one. It has important implications for the ability of intervention programs such as Mindful Self-Compassion (MSC; Germer & Neff, 2019) to enhance self-compassion and well-being across the globe. In fact, MSC is now being taught on six continents including countries like Japan, China, and Korea. Although there are some culturally appropriate modifications made to the program (such the degree of independent versus group-based learning) the basic protocol and practices are the same, and research demonstrates MSC is effective in enhancing self-compassion (i.e.., increasing CS and decreasing UCS) and fostering well-being in both Western (Friis et al., 2016; Jiménez-Gómez et al., 2022; Neff & Germer, 2013) and non-Western cultures (Finlay-Jones et al., 2018; Guo et al., 2020; Yeung et al., 2021). This suggests that the operation of self-compassion and its beneficial effects may be universal to human beings across cultures.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s12671-023-02143-2.

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Author Contributions Yuki Miyagawa: Conceptualization, Methodology, Formal analysis, Writing, Resources.

Kristin, D. Neff: Conceptualization, Methodology, Writing, Resources.

Data Availability The datasets for this research are freely available in https://osf.io/qtxz6/.

Declarations

Ethical Approval This research has been approved by the Institutional Review Board of the affiliated universities of the first and second authors. All procedures performed in this study involving human participants were in accordance with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Conflict of Interest The authors declare that they have no conflict of interest with any of the findings published in this manuscript.

References

Chio, F. H. N., Mak, W. W. S., & Yu, B. C. L. (2021). Meta-analytic review on the differential effects of self-compassion components on well-being and psychological distress: The moderating role of dialecticism on self-compassion. *Clinical Psychology Review, 85*, 101986. https://doi.org/10.1016/j.cpr.2021.101986

Clark, S. L., & Muthén, B. (2009). *Relating latent class analysis results to variables* not *included in the analysis*. Retrieved from http://www.statmodel.com/download/relatinglca.pdf. Accesed 26th October

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78*(1), 98–104. https://doi.org/10.1037/0021-9010.78.1.98

Ferguson, S. L., G. Moore, E. W., & Hull, D. M. (2020). Finding latent groups in observed data: A primer on latent profile analysis in M*plus* for applied researchers. *International Journal of Behavioral Development, 44*(5), 458–468. https://doi.org/10.1177/0165025419881721

Ferrari, M., Ciarrochi, J., Yap, K., et al. (2022a). Embracing the complexity of our inner worlds: Understanding the dynamics of self-compassion and self-criticism. *Mindfulness, 13*(7), 1652–1661. https://doi.org/10.1007/s12671-022-01897-5

Ferrari, M., Beath, A., Einstein, D. A., Yap, K., & Hunt, C. (2022b). Gender differences in self-compassion: a latent profile analysis of compassionate and uncompassionate self-relating in a large adolescent sample. *Current Psychology.* Advance online publication. https://doi.org/10.1007/s12144-022-03408-0

Finlay-Jones, A., Xie, Q., Huang, X., Ma, X., & Guo, X. (2018). A pilot study of the 8-week Mindful Self-Compassion training program in a Chinese community sample. *Mindfulness, 9*(3), 993–1002. https://doi.org/10.1007/s12671-017-0838-3

Friis, A. M., Johnson, M. H., Cutfield, R. G., & Consedine, N. S. (2016). Kindness matters: A randomized controlled trial of a mindful self-compassion intervention improves depression, distress, and HbA1c among patients with diabetes. *Diabetes Care, 39*(11), 1963–1971. https://doi.org/10.2337/dc16-0416

Germer, C. K., & Neff, K. D. (2019). *Teaching the Mindful Self-Compassion program: A guide for professionals*. Guilford Press.

Guo, L., Zhang, J., Mu, L., & Ye, Z. (2020). Preventing postpartum depression with Mindful Self-Compassion intervention: A randomized control study. *The Journal of Nervous and Mental Disease, 208*(2), 101–107. https://doi.org/10.1097/NMD.0000000000001096

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Sage.

Jiménez-Gómez, L., Yela, J. R., Crego, A., Melero-Ventola, A. R., & Gómez-Martínez, M. Á. (2022). Effectiveness of the Mindfulness-Based Stress Reduction (MBSR) vs. The Mindful Self-Compassion (MSC) programs in clinical and health psychologist trainees. *Mindfulness, 13*(3), 584–599. https://doi.org/10.1007/s12671-021-01814-2

Keefer, K. V., Parker, J. D. A., & Wood, L. M. (2012). Trait emotional intelligence and university graduation outcomes: Using latent profile analysis to identify students at risk for degree noncompletion. *Journal of Psychoeducational Assessment, 30*(4), 402–413. https://doi.org/10.1177/0734282912449446

Kim, J. J., Parker, S. L., Doty, J. R., Cunnington, R., Gilbert, P., & Kirby, J. N. (2020). Neurophysiological and behavioural markers of compassion. *Scientific Reports, 10*(1), 6789. https://doi.org/10.1038/s41598-020-63846-3

Lanza, S. T., & Collins, L. M. (2008). A new SAS procedure for latent transition analysis: Transitions in dating and sexual risk behavior. *Developmental Psychology, 44*(2), 446–456. https://doi.org/10.1037/0012-1649.44.2.446

Lo, Y., Mendell, N. R., & Rubin, D. B. (2001). Testing the number of components in a normal mixture. *Biometrika, 88*(3), 767–778. https://doi.org/10.1093/biomet/88.3.767

López, A., Sanderman, R., Smink, A., Zhang, Y., van Sonderen, E., Ranchor, A., & Schroevers, M. J. (2015). A reconsideration of the Self-Compassion Scale's total score: Self-compassion versus self-criticism. *PloS ONE, 10*(7), e0132940. https://doi.org/10.1371/journal.pone.0132940

Markus, H. R., & Kitayama, S. (2010). Cultures and selves: A cycle of mutual constitution. *Perspectives on Psychological Science, 5*(4), 420–430. https://doi.org/10.1177/1745691610375557

Marsh, H. W., Lüdtke, O., Trautwein, U., & Morin, A. J. S. (2009). Classical latent profile analysis of academic self-concept dimensions: Synergy of person-and variable-centered approaches to theoretical models of self-concept. *Structural Equation Modeling, 16*(2), 191–225. https://doi.org/10.1080/10705510902751010

Miyagawa, Y., Tóth-Király, I., Knox, M. C., Taniguchi, J., & Niiya, Y. (2022). Development of the Japanese version of the State Self-Compassion Scale (SSCS-J). *Frontiers in Psychology, 12*, 779318. https://doi.org/10.3389/fpsyg.2021.779318

Morin, A. J. S., Meyer, J. P., Creusier, J., & Biétry, F. (2016). Multiple-group analysis of similarity in latent profile solutions. *Organizational Research Methods, 19*(2), 231–254. https://doi.org/10.1177/1094428115621148

Muris, P., Otgaar, H., & Petrocchi, N. (2016). Protection as the mirror image of psychopathology: Further critical notes on the Self-Compassion Scale. *Mindfulness, 7*(3), 787–790. https://doi.org/10.1007/s12671-016-0509-9

Muris, P., Otgaar, H., & Pfattheicher, S. (2019). Stripping the forest from the rotten trees: Compassionate self-responding is a way of coping, but reduced uncompassionate self-responding mainly reflects psychopathology. *Mindfulness, 10*(1), 196–199. https://doi.org/10.1007/s12671-018-1030-0

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity, 2*(3), 223–250. https://doi.org/10.1080/15298860309027

Neff, K. D. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity, 2*(2), 85–101. https://doi.org/10.1080/15298860309032

Neff, K. D. (2016). The Self-Compassion Scale is a valid and theoretically coherent measure of self-compassion. *Mindfulness, 7*(1), 264–274. https://doi.org/10.1007/s12671-015-0479-3

Neff, K. D. (2022). The differential effects fallacy in the study of self-compassion: Misunderstanding the nature of bipolar continuums. *Mindfulness, 13*(3), 572–576. https://doi.org/10.1007/s12671-022-01832-8

Neff, K. D. (2023). Self-compassion: Theory, method, research, and intervention. *Annual Review of Psychology, 74*, 193–218. https://doi.org/10.1146/annurev-psych-032420-031047

Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the Mindful Self-Compassion program. *Journal of Clinical Psychology, 69*(1), 28–44. https://doi.org/10.1002/jclp.21923

Neff, K. D., Long, P., Knox, M. C., Davidson, O., Kuchar, A., Costigan, A., Williamson, Z., Rohleder, N., Tóth-Király, I., & Breines, J. G. (2018). The forest and the trees: Examining the association of self-compassion and its positive and negative components with psychological functioning. *Self and Identity, 17*(6), 627–645. https://doi.org/10.1080/15298868.2018.1436587

Neff, K. D., Tóth-Király, I., Knox, M. C., Kuchar, A., & Davidson, O. (2021). The development and validation of the State Self-Compassion Scale (Long- and Short Form). *Mindfulness, 12*(1), 121–140. https://doi.org/10.1007/s12671-020-01505-4

Neff, K. D., Tóth-Király, I., Yarnell, L. M., Arimitsu, K., Castilho, P., Ghorbani, N., Guo, H. X., Hirsch, J. K., Hupfeld, J., Hutz, C. S., Kotsou, I., Lee, W. K., Montero-Marin, J., Sirois, F. M., de Souza, L. K., Svendsen, J. L., Wilkinson, R. B., & Mantzios, M. (2019). Examining the factor structure of the Self-Compassion Scale in 20 diverse samples: Support for use of a total score and six subscale scores. *Psychological Assessment, 31*(1), 27–45. https://doi.org/10.1037/pas0000629

Nunnally, J. (1978). *Psychometric methods*. McGraw-Hill.

Pastor, D. A., Barron, K. E., Miller, B. J., & Davis, S. L. (2007). A latent profile analysis of college students' achievement goal orientation. *Contemporary Educational Psychology, 32*(1), 8–47. https://doi.org/10.1016/j.cedpsych.2006.10.003

Phillips, W. J. (2021). Self-compassion mindsets: The components of the self-compassion scale operate as a balanced system within individuals. *Current Psychology, 40*(10), 5040–5053. https://doi.org/10.1007/s12144-019-00452-1

Rosenberger, N. R. (1989). Dialectic balance in the polar model of self: The Japan case. *Ethos, 17*(1), 88–113. https://doi.org/10.1525/eth.1989.17.1.02a00050

Spencer-Rodgers, J., Peng, K., & Wang, L. (2010). Dialecticism and the co-occurrence of positive and negative emotions across cultures. *Journal of Cross-Cultural Psychology, 41*(1), 109–115. https://doi.org/10.1177/0022022109349508

Spurk, D., Hirschi, A., Wang, M., Valero, D., & Kauffeld, S. (2020). Latent profile analysis: A review and "how to" guide of its application within vocational behavior research. *Journal of Vocational Behavior, 120*, 103445. https://doi.org/10.1016/j.jvb.2020.103445

Tóth-Király, I., & Neff, K. D. (2021). Is self-compassion universal? Support for the measurement invariance of the Self-Compassion Scale across populations. *Assessment, 28*(1), 169–185. https://doi.org/10.1177/1073191120926232

Ullrich-French, S., & Cox, A. E. (2020). The use of latent profiles to explore the multi-dimensionality of self-compassion. *Mindfulness, 11*(6), 1483–1499. https://doi.org/10.1007/s12671-020-01365-y

Wei, L., Xie, J., Wu, L., Yao, J., Zhu, L., & Liu, A. (2022). Profiles of self-compassion and psychological outcomes in cancer patients. *Psycho-Oncology*. https://doi.org/10.1002/pon.5931

Wu, Q., Chen, C., Liang, Y., Zhou, N., Cao, H., Du, H., Lin, X., & Chi, P. (2020). Not only the forest and trees but also the ground they are rooted in: Identifying profiles of self-compassion from the perspective of dialecticism. *Mindfulness, 11*(8), 1967–1977. https://doi.org/10.1007/s12671-020-01406-6

Wu, L., Schroevers, M. J., & Zhu, L. (2021). Positive self-compassion, self-coldness, and psychological outcomes in college students: A person-centered approach. *Mindfulness, 12*(10), 2510–2518. https://doi.org/10.1007/s12671-021-01721-6

Yeung, A., Xie, Q., Huang, X., Hoeppner, B., Jain, F. A., Tan, E. K., Mai, X., Mischoulon, D., & Guo, X. (2021). Effectiveness of Mindful Self-Compassion training supported by online peer groups in China: A pilot study. *Alternative Therapies in Health and Medicine, 27*(5), AT6940.