RESEARCH PAPER

The Construct and Measurement of Peace of Mind

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Abstract Previous studies have shown that Asian American or Chinese individuals value low-arousal positive affect and a harmonious state of happiness more than European Americans do. However, the affective component of subjective well-being has mostly been defined as the presence of positive affect and the absence of negative affect. This definition emphasizes the importance of hedonic pleasure but fails to include the affect valued in Chinese culture. The present study developed the construct of peace of mind to describe the affective well-being valued in Chinese culture. Peace of mind was defined as an internal state of peacefulness and harmony. To develop a measure to assess peace of mind, three studies were conducted. Study 1 developed the Peace of Mind Scale (PoM), Study 2 established its validity as an affective well-being measure, and Study 3 found that individuals from Chinese cultures score higher on this scale than those from Western cultures. The results indicate that the PoM has good reliability and validity for measuring affective well-being. The cross-cultural validation also found that Taiwanese individuals scored higher on the PoM than European Americans, which provides further evidence of good construct validity of the PoM.

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1 Introduction

What constitutes "happiness" has long been debated (Ryff 1989; Ryan and Deci 2001). Subjective well-being (SWB) has emerged as one of the most effective ways of measuring happiness in everyday life (Ryan and Deci 2001; Kahneman et al. 1999). Derived from the hedonic view of happiness, which emphasizes the experience of maximum levels of pleasure, SWB has been indexed by the presence of positive affect (PA), absence of negative affect (NA), and cognitive component of life satisfaction (Ryan and Deci 2001; Kahneman et al. 1999). Of these components of SWB, affective SWB, which can be understood as the extent to which one experiences PA over NA, most closely reflects the hedonic view of happiness (Andrews and Robinson 1991; Andrews and Withey 1976; Diener 2000). Affective SWB is measured by the Affect Balance Scale (ABS; Bradburn 1969), Positive and Negative Affect Schedule (PANAS; Watson et al. 1988), and Daily Mood Scale (Diener and Larsen 1984). In accordance with the hedonic view of happiness, these measures only cover the moderate-arousal positive (MAP) affect (e.g., happy, joyful, and pleased) and high-arousal positive (HAP) affect (e.g., excited, enthusiastic, and alert) of positive feelings. Thus, higher affective SWB scores indicate more MAP and HAP affects and less NA in daily life. Such measures of affective SWB have been administered in various cultures in order to investigate the cultures that report being the happiest. These studies found that Asians (or Asian Americans) had lower affective SWB scores than Westerners (Diener et al. 1995; Okazaki 2000; Oishi 2001; Suh 2002).

Nonetheless, these results may not accurately reflect whether Asians (or Asian Americans) are actually less happy than Westerners. In fact, cultural influences can shape the subjective meaning of happiness and thereby influence an individual's emotional experience of happiness. Lu and Gilmour (2004) compared participants' responses to the question "what is happiness?" in Chinese and European Americans. With the exception of some commonalities between the two groups regarding their concept of happiness (i.e., happiness as a mental state of satisfaction and contentment), large discrepancies were found between cultures. For example, Chinese individuals often used the terms "harmony" and "balance" (which in Chinese culture refers to a state of homeostasis both within one's mind as well as between an individual and his/her surroundings) to define happiness, whereas European Americans never used these terms. In another study, Tsai et al. (2006) investigated how culture influences ideal affect (how people want to feel) and found that both Asian Americans and Hong Kong Chinese placed more value on the low-arousal positive (LAP) affect (i.e., peaceful, calm) than European Americans. By contrast, European and Asian Americans placed more value on the HAP affect (i.e., excited, elated) than the Hong Kong Chinese. The results provide evidence that people influenced by Eastern and Western cultures value different positive feelings. In summary, the happiness valued by Chinese individuals may well be different from the hedonic view of happiness that emphasizes experiencing maximum levels of pleasure.

In addition, previous studies also found that the discrepancy between ideal and actual affect (how people actually feel) correlates positively with depression and negatively with life satisfaction (Kampfe and Mitte 2009; Tsai et al. 2006). Specifically, the further an

individual's emotional experiences depart from the emotions he or she values, the lesser well-being that individual experiences. As culture plays an important role in shaping ideal affect, people who experience emotions that are in line with those valued by their culture should enjoy an increased sense of well-being. Therefore, measuring the extent to which one experiences MAP or HAP affects over NA should be an appropriate measure to reflect affective well-being in Western cultures. However, applying these measures within cultures that value LAP affects along with the mental states of "harmony" and "balance" could be problematic. Given that measures of affective well-being derived from Chinese culture are lacking, it is necessary to develop a new construct and measurement tool that appropriately reflects Chinese' affective well-being, one that reflects the importance of LAP affect and mental harmony. Next, we review the ancient philosophical thought patterns on achieving happiness—from Confucianism, Taoism, and Buddhism—that justify our approach.

2 Affective Well-being in Chinese Culture

2.1 Confucianism

Confucianism was founded by Confucius, who was the first Chinese philosopher to formulate a thought system that provided guidance on managing life. In the representative book of Confucianism, "Lun Yu" (論語), Confucius emphasized the importance of *benevolence* (仁). Rather than fulfilling one's desires, *benevolence,* defined as controlling one's desires to conform to the decorum valued by society, is encouraged more in the Chinese culture. In another seminal book of Confucianism, "Zhong Yong" (中庸), the internal states of equilibrium and harmony were emphasized. The text states:

> While there are no stirrings of pleasure, anger, sorrow, or joy, the mind may be said to be in the state of *equilibrium* (中). When those feelings have been stirred, and they act in their due degree, there ensues what may be called the state of *harmony* (和). This equilibrium is the great root from which grow all the human actions in the world, and this harmony is the universal path that they all should pursue (translation: Wong and Leung 2001).

To summarize, in Confucianism, behavioral ideals require the individual not only to control his/her desires in order to comply with the pivotal virtue of *benevolence* but also to maintain equilibrium, a peaceful state of mind without overly positive or negative emotions, in their mental state.

2.2 Taoism

The main idea of Taoism is *Tao* (道), which can be understood in many different ways. It can be seen as the mystical power of the universe, the way in which the world functions, or the way in which people speak about reality (Kohn 2001). Lao-tzu was the philosopher who first introduced the concept of Tao. In his book "Tao Te Ching" (道德經), he described *Tao* as a state of perfect harmony. The Taoist harmony is largely based on the Chinese yin-yang theory. Yin and Yang stand for the paired opposites in the world (e.g., light/dark; good/bad; hot/cold), and the Taoist harmony captures the dynamics of balance between opposing elements (Delle et al. 2011; Lee et al. 2009). To maintain harmony, Lao-tzu taught people to accept the way things are:

The Tao never does anything, yet through it all things are done. If people could center themselves in it, the whole world would be transformed by itself, in its natural rhythms. People would be content with their simple, everyday lives, in harmony, and free of desire. When there is no desire, all things are at peace (translation: Mitchell 1988).

The text clearly describes the ideal lifestyle and mental state valued by Lao-tzu. In contrast to the hedonic view of happiness, which encourages people to pursue maximum levels of pleasure, the ultimate goal of Taoism is to achieve inner peace by maintaining internal harmony.

2.3 Buddhism

Buddhism originated in India, where Gautama Buddha was enlightened under the Bodhi tree and then set forth to spread his message of enlightenment, compassion, and peace. Buddhist teachings and practices have greatly influenced Chinese culture and religion for millennia (Mitchell 2002). The fundamental concerns of Buddhism are as follows: To identify the inner causes of suffering, embrace the possibility of freedom from suffering, and explore the means by which one can realize such freedom (Wallace and Shapiro 2006). Through Buddhist practice, people could gradually approach the ultimate goal of life. Gautama Buddha described the ultimate goal, *Nirvana*, as the complete cessation of craving (Mitchell 2002). Another word the Buddha used to describe Nirvana was peacefulness, which refers to a status of being "unmoved" by life events that would ordinarily shift one into negative states of mind (Mitchell 2002). It was believed that even though a nirvanic person is not immune to things such as sickness or death, he or she can experience a "peaceful and calm" state of mind when facing ills. Therefore, according to Buddhism, maintaining inner peacefulness is the ideal mental state that one should long for.

As can be seen, all three schools of ancient teaching that have influenced Chinese culture emphasize the importance of maintaining inner peace and harmony. This accords with previous findings that Chinese people value LAP affect (Tsai et al. 2006) and a harmonious state of happiness (Lu and Gilmour 2004). Therefore, we introduce a new construct, *peace of mind,* to describe the type of affective well-being valued within Chinese culture. Peace of mind is characterized by the affective states of internal peace and harmony. The experience of internal peace captures the states of mind included in the LAP affect (e.g., peaceful, calm, and serenity), whereas internal harmony captures the states of mind that include balance and harmony. According to previous research, emotions can be differentiated into "cognitive-independent" and "cognitive-dependent" emotions (see reviews of Niedenthal et al. 2006). The former indicates the set of "basic" emotions that are fundamental elements of emotional life, such as emotions classified in the affect circumplex (e.g., LAP affect); the latter indicates more complicated emotions that rely on cognitive evaluation before they emerge. We further regard internal peace as a cognitive-independent emotion because it includes emotions that cover LAP affect. On the other hand, in Taoism, harmony stands for the dynamic balance between opposing elements (Lee et al. 2009) which we suggest depends on cognitive evaluation, and as such, we regard internal harmony as reflective of cognitive-dependent emotions. We suggest that the two aspects of PoM are reciprocally related such that people can either achieve internal peace through the process of harmony, or achieve inner harmony through maintaining a peaceful state of mind. We therefore suggest that individuals with peace of mind would experience both internal peace and harmony as one coherent state.

The aim of the three studies presented is to develop and test a new measure that can accurately assess the construct of peace of mind as a measure of affective well-being. In Study 1, items of the Peace of Mind Scale (PoM) were generated on the basis of the definition of peace of mind. Both the factor structure and psychometric properties of the PoM were also tested. In Study 2, the PoM and conceptually related self-report measures were administered to examine the criterion-related and discriminant validity of the PoM. In Study 3, a cross-cultural study was designed to further examine the construct validity of the PoM.

3 Study 1: Development of the Peace of Mind Scale

3.1 Method

3.1.1 Participants

Two sample groups were recruited for Study 1. Sample A, which included a total of 239 undergraduate students (90 men and 149 women) from Chung Yuan Christian University,[1] was recruited to explore the factor structure of the PoM. The ages of the participants ranged from 18 to 29, with a mean age of 20. Sample B was a student sample recruited to perform confirmatory factor analysis. Sample B included a total of 139 undergraduate students (69 men and 70 women) from National Taiwan University (NTU). Participants ranged in age from 18 to 26, with a mean age of 20.5.

3.1.2 Materials

3.1.2.1 Peace of Mind To develop a self-report measure of peace of mind, we began by generating items for the PoM written in Chinese. Based on the definition of peace of mind, which was defined as the extent to which one experiences inner peace and harmony, a list of emotional words related to peace and harmony was collected to facilitate item generation. The word list included words collected from the circumplex model of LAP emotions (Russell 1980; Tsai et al. 2006; Watson and Tellegen 1985), including peaceful, serene, calm, at ease, and comfortable. Words such as harmonious, balanced, or settled were also included to reflect the internal harmony element of the peace of mind construct. Given our view that people with peace of mind experience both internal peace and internal harmony at the same time, instead of targeting the specific meanings of peace and harmony within different items, each item was designed to capture internal peace conjoined with internal harmony. Additionally, unlike the measure of actual LAP affect that uses emotional adjectives (Tsai et al. 2006), we used sentences that included words describing both internal peace and internal harmony. Using the word list, a total of 10 sentence items were drafted to reflect the experiences of internal peace and harmony in general terms (e.g., I have peace and harmony in my mind) as well as in everyday circumstances (e.g., I feel content and comfortable with myself in daily life). Because words related to both peace and harmony were included in each item, a single factor model was predicted. Because we believe that the PoM measures affective well-being, and frequency scales have been demonstrated as being useful for capturing affective well-being (Diener et al. 1991), we chose frequency assessment for the PoM. The instructions ask participants to indicate how often they experience

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[1] Chung-Yuan Christian University is one of the general universities in Taiwan. Students are neither required to be members of the religion nor expected to study or practice the tenets of Christianity.

Table 1 Means, standard deviations, factor loadings, and item–total correlations for the PoM

	M	SD	F	I–T
1. My mind is free and at ease	3.32	.86	.84	.83
2. I feel content and comfortable with myself in daily life	3.31	.82	.79	.81
3. My lifestyle gives me feelings of peace and stability	3.16	.91	.78	.82
4. I have peace and harmony in my mind	3.11	.85	.84	.83
5. It is difficult for me to feel settled (Reverse)	3.13	1.06	.69	.76
6. The way I live brings me feelings of peace and comfort	3.24	.89	.82	.85
7. I feel anxious and uneasy in my mind (Reverse)	3.08	.98	.69	.76
Total score	3.19	.91		

F factor loadings, *I–T* item–total correlations

the internal states described in each of the items on a scale of 1 (not at all) to 5 (all the time). All participants in the two samples were administered the PoM in group settings.

3.2 Results and Discussion

3.2.1 Exploratory Factor Analysis (EFA)

EFA was conducted using the 10 items we generated. The principal axis factoring method was chosen for factor extraction. The Kaiser–Meyer–Olkin measure of sampling adequacy (KMO) was .91. The number of factors to be extracted was determined by inspection of the scree plot of eigenvalues, which revealed a single factor solution. The first factor accounted for 63.58 % of the total variation, with an eigenvalue of 6.36. The second factor accounted for 9.95 % of the total variation, with an eigenvalue of 1.00. EFA using the maximum-likelihood method for factor extraction also showed a strong single factor structure and similar factor loadings. Thus, only items with high factor loadings on the first factor were retained. One item was dropped due to a low factor loading. In addition, because of the high semantic similarity of some of those items,[2] two items were deleted on the basis of high inter-item correlations ($r > .8$) resulting in a seven-item scale. Item characteristics for the seven-item PoM are presented in Table 1. All of the factor loadings derived from principal axis factoring estimation were above .30, and the average factor loading was .78. The item–total correlations ranged from .76 to .85, and the average item–total correlation was .81. The mean for scores on the scale was 3.19, and the mean standard deviation was .91. The alpha reliability coefficient of the PoM was .91.

3.2.2 Confirmatory Factor Analysis (CFA)

CFA was conducted using data from Sample B to test the single-factor model revealed by the exploratory analysis. We chose maximum-likelihood estimation and the LISREL 8.80 program (Joreskog and Sorbom 1996) to conduct the CFA. Because the sample size was small, a Satorra-Bentler (SB) scaled Chi-squared statistic, which was considered as a robust estimator in small sample size, was used (Satorra and Bentler 2001). In addition, fit

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[2] The items of the PoM were originally written in Chinese. In order to develop the English version of the PoM for the Study 3, semantic similarity of items was considered to avoid duplicity which can improve the equivalence of translation.

indices including root mean square error of approximation (RMSEA), comparative fit index (CFI), and Standardized Root Mean Square Residual (SRMR) were used to evaluate the fit of each model. General cutoffs for model acceptance, including RMSEA less than or equal to .05, CFI greater than or equal to .95, and SRMR less than .08, were adopted (Hu and Bentler 1999). The fit indices of the model indicated that the correspondence between the single-factor model and the sample covariance matrix was satisfactory (RMSEA = .00; CFI = 1; IFI = 1.00, SRMR = .03; SB-X^2 (14) = 11.68, p > .05). All seven items of the scale were significantly related to the latent factor (all ps < .01). The alpha reliability coefficient was .94.

In summary, the PoM was found to be a measure with good factor structure and reliability. In Study 2, we further tested the validity of the PoM. In order to establish the criterion-related validity, several measures that were expected to be highly correlated with the PoM were chosen as validation criteria, including conventional indices of SWB, psychological ill-being indices, and LAP affect. The discriminant validity of the PoM versus measures of related constructs was also tested using LAP affect or psychological ill-being indices as validation criteria to show that the PoM differs significantly from conventional indices of SWB and LAP affect.

4 Study 2: Criterion-Related and Discriminant Validity

4.1 Method

4.1.1 Participants

A total of 137 undergraduate students (69 men and 68 women) from NTU completed a packet of questionnaires that were written in Chinese in two waves over a 2-week period during a general psychology course. Participants ranged in age from 18 to 32, with a mean age of 19.5 years.

4.1.2 Materials

4.1.2.1 Peace of Mind The seven-item PoM developed in Study 1 was administered in this study. The alpha reliability (α = .90) and test–retest reliability over a 2-week period (r = .75, p < .05) of the PoM was adequate in the current sample.

4.1.2.2 Positive and Negative Affect This assessment was used to measure conventional indices of affective SWB, including affect balance (Bradburn 1969), positivity ratio (Fredrickson and Losada 2005), and LAP affect (Tsai et al. 2006). The affect assessment that we used was primarily based on the items developed by Tsai et al. (2006); however, additional items were added according to the items listed in the affect circumplex in order to represent the emotions in each octant (Larsen and Diener 1992; Russell 1980; Ressell and Carroll 1999; Watson and Tellegen 1985). The assessment construct was chosen because it fairly reflects the positive and negative affect of East Asians as it captures low arousal affect. As shown in Table 2, a total of 24 items was used to sample six of the octants of the affect circumplex. Octants of high arousal neutral affect (e.g., aroused, surprised) and low arousal neutral affect (e.g., quiet, still) were not included in the assessment because the main concerns of the present work focus on affect with positive or

Table 2 Items of the affect assessment and internal consistency in each octant

Valence	Octant	Items	Alpha
Positive affect	High-arousal positive (HAP)	Excited, enthusiastic, energetic, elated	.80
	Moderate-arousal positive (MAP)	Happy, satisfied, content, delighted	.84
	Low-arousal positive (LAP)	Calm, tranquil, serene, relaxed	.80
Negative affect	High-arousal negative (HAN)	Nervous, fearful, hostile, distressed	.85
	Moderate-arousal negative (MAN)	Sad, lonely, blue, gloomy	.79
	Low-arousal negative (LAN)	Bored, tired, sleepy, sluggish	.67

negative valence. Again, frequency assessment was chosen to capture affective well-being (Diener et al. 1991); participants were instructed to indicate how often they had experienced each of the emotions during the past month on a scale of 1 (never) to 5 (always). The internal consistency in each octant was satisfactory (see Table 2).

Using this assessment, the affect balance score was calculated by subtracting the summation score of NA from PA. For the positivity ratio, following the scoring procedures reported by Fredrickson and Losada (2005), we used different thresholds for different valences by tallying the number of positive emotions that were experienced at least often (≥3) and the number of negative emotions experienced at least sometimes (≥2). Then, the positivity ratio was calculated by the ratio of the number tallied for PA over the number tallied for NA. In addition, an index of LAP affect was also calculated by averaging the scores on items measuring LAP affect.

4.1.2.3 Satisfaction with Life The Satisfaction with Life Scale (SWLS; Diener et al. 1985) was employed to measure participants' global evaluation of life satisfaction, the cognitive component of SWB. The SWLS consists of five items. The items included, for example, "In most ways my life is close to my ideal" and "So far I have gotten the important things I want in life." Participants were asked to indicate agreement with each item on a scale of 1 (strongly disagree) to 7 (strongly agree). The alpha reliability was .88 in the current sample.

4.1.2.4 Happiness The short version (20 items) of the Chinese Happiness Inventory (CHI; Lu and Shih 1997) was used to reflect the general SWB in Chinese culture. The development of CHI was primarily based on the Oxford Happiness Inventory (OHI; Argyle et al. 1989); however, it includes items that describe the aspects of Chinese happiness that are not covered by the OHI. CHI is a composite index of SWB as it reflects PA, (lack of) NA, and life satisfaction. Example items were "I feel I have a worse life than others" and "I am never in a state of joy or elation." The alpha reliability was .91 in the current sample.

4.1.2.5 Depression The 20-item Center for Epidemiological Studies-Depression (CES-D) scale was employed to measure depressive symptoms in the general population (Radloff 1977). The items were, for example, "I was bothered by things that usually don't bother me" and "People were unfriendly." Participants were asked to rate how often they had experienced each item in the last week, using a 1 (hardly) to 4 (most of the time) scale. The alpha reliability of the scale was .88 in the current sample.

4.1.2.6 Anxiety The current study used the state format of the State Trait Anxiety Inventory (STAI; Spielberger 1983), which consists of 20 items. The state format was

chosen because we assumed that the PoM captures the extent to which people maintain internal peace and harmony in response to daily events, and the state form of STAI should best reflect the opposite nature of maintaining peace of mind. Participants were asked to indicate the strength of their feelings at the moment, using a scale of 1 (not at all) to 4 (very much so). The items were, for example, "I feel secure" and "I feel nervous." The alpha reliability of the scale was .91 in the current sample.

4.1.2.7 Entrapment The 16-item entrapment scale (Gilbert and Allan 1998) was given to participants. This scale measures the extent to which people have a strong motivation to take flight from things triggered by internal feelings or external world events; however, this motivation is blocked. The measure was chosen because it provides an important aspect of psychological health, which is distinct from depression and anxiety. Example items were "I would like to escape from my thoughts and feelings" and "I feel powerless to change things." Participants were asked to indicate the degree to which the items represented their thoughts and feelings, using a scale of 1 (not at all like me) to 5 (extremely like me). The alpha reliability of the scale was .95 in the current sample.

4.1.2.8 Social Desirability A short version (10 items) of the Taiwanese Social Desirability Scale (Liao 2000) was given to participants. This scale was developed on the basis of the construct of the Marlowe-Crown social desirability scale (Crowne and Marlowe 1960), and the items were generated by Taiwanese participants to reflect the tendency for social desirability in Taiwanese culture. Participants were asked to indicate the extent to which they agree with each item, using a scale of 1 (strongly disagree) to 6 (strongly agree). The items included, for example, "I make excuses for my mistakes sometimes" and "I pry into the private business of others sometimes." The alpha reliability of the scale was .75 in the current sample.

4.2 Results and Discussion

4.2.1 Criterion-Related Validity

In order to establish the criterion-related validity of the PoM, measures of SWB, psychological ill-being, and LAP affect were chosen as criterion-related validation indices. Correlations between the PoM and these measures are presented in Table 3. As expected, the PoM was found to have highly positive correlations with indices of affective well-being, including the affect balance score and the positivity ratio. The correlation coefficients between the PoM and indices of affective well-being were high enough to demonstrate that they are similar constructs, but modest enough to demonstrate that they are not measuring the same construct. Moreover, as expected, the PoM was found to have significant positive correlations with the cognitive aspect of SWB, measured by the SWLS, and the composite index of SWB, measured by CHI. The results indicate that people who score high on the PoM also experience high life satisfaction and happiness within their daily lives.

In addition to the relatedness between the PoM and SWB measures, indices of psychological ill-being were expected to negatively correlate with the score on the PoM. As predicted, the PoM was found to have significant negative correlations with the tendency for depression, state anxiety, and entrapment. In summary, the results show that the PoM can be seen as an important index for mental health because it effectively predicted both positive and negative aspects of psychological well-being.

Table 3 Correlations of the PoM with related measures

	PoM	SWLS	CHI	Affect balance	Positivity ratio
Indices of subjective well-being					
Satisfaction with Life Scale (SWLS)	.54*** (.47***)				
Chinese Happiness Inventory (CHI)	.52*** (.49***)	.55*** (.51***)			
Affect balance (PA − NA)	.65*** (.63***)	.57*** (.54***)	.61*** (.59***)		
Positivity ratio (PA/NA)	.47*** (.44***)	.20* (.15)	.43*** (.41***)	.65*** (.63***)	
Frequency judgment of emotions					
1. High-arousal Positive (HAP)	.32** (.32**)	.34*** (.35***)	.46*** (.46***)	.66*** (.66***)	.42*** (.42***)
2. Moderate-arousal positive (MAP)	.49*** (.49***)	.54*** (.54***)	.55*** (.55***)	.76*** (.76***)	.45*** (.44***)
3. Low-arousal Positive (LAP)	.60*** (.57***)	.37*** (.31**)	.40*** (.36***)	.41*** (.38***)	.21* (.17)
4. High-arousal Negative (HAN)	−.50*** (−.45***)	−.34*** (−.27**)	−.30*** (−.26**)	−.63*** (−.61***)	−.45*** (−.42***)
5. Moderate-arousal negative (MAN)	−.52*** (−.48***)	−.39*** (−.34***)	−.41*** (−.38***)	−.77*** (−.76***)	−.51*** (−.49***)
6. Low-arousal Negative (LAN)	−.32** (−.22*)	−.36*** (−.27**)	−.27** (−.21*)	−.46*** (−.42***)	−.22** (−.16)
Indices of psychological ill-being					
CES-D	−.58*** (−.54***)	−.43*** (−.37***)	−.44*** (−.40***)	−.52*** (−.48***)	−.35*** (−.32***)
STAI-state	−.57*** (−.52***)	−.31** (−.24**)	−.24** (−.19*)	−.35*** (−.31***)	−.32*** (−.28**)
Entrapment Scale	−.61*** (−.58***)	−.43*** (−.37***)	−.65*** (−.63***)	−.61*** (−.58***)	−.48*** (−.45***)

*** $p < .001$, ** $p < .01$, * $p < .05$. Values in parentheses are correlation coefficients after controlling for the effects of social desirability

In the circumplex model of affect, affective adjectives can be categorized into different octants (Russell 1980; Tsai et al. 2006; Watson and Tellegen 1985). As shown in Table 3, significant positive correlations were found between the PoM and the three octants of PA. Among those octants, as expected, LAP showed the highest correlations with the PoM, followed by MAP, whereas HAP showed only a moderate correlation with the PoM. Furthermore, significant negative correlations were found between the PoM and the three octants of NA. Among those octants, the correlation between the PoM and moderate-arousal negative (MAN) showed the highest negative correlation in comparison with high-arousal negative (HAN) affect and low-arousal negative (LAN) affect. The results show that people who score high on the PoM are less likely to experience NA in their daily lives. In summary, these results show that people who have higher peace of mind experience positive emotions more frequently and experience negative emotions less frequently.

In order to ensure that the PoM was not contaminated by social desirability, a Pearson correlation coefficient was calculated between the scores of the PoM and the Taiwanese

social desirability scale. The results showed that the PoM was positively correlated with social desirability ($r = .35$, $p < .001$). In order to control the effects influenced by social desirability, we calculated the correlation coefficients between the PoM and indices of SWB and psychological ill-being when the effects of social desirability are controlled (see Table 3). The pattern of correlations largely remained unchanged: The PoM was still highly correlated with indices of SWB and psychological ill-being after controlling for shared variance with social desirability. These findings suggest that, although experiencing peace of mind can be regarded as a socially desirable state by Chinese people, the PoM still showed good criterion-related validity when social desirability was factored out. Finally, gender differences in the PoM were also examined, and no gender differences were found ($t = .54$, $p > .05$).

4.2.2 Discriminant Validity

In order to establish the discriminant validity of the PoM, we first investigated whether the PoM has a stronger association with LAP affect than the conventional SWB measures did. Table 3 shows that even after the effects of social desirability were controlled, the correlation coefficient between the PoM and LAP affect is higher than the coefficients between conventional indices of SWB (including affect balance, positivity ratio, SWLS, and CHI) and LAP affect. The results show that although all the conventional measures of SWB, especially affect balance and positivity ratio, are conceptually related to LAP affect, the PoM shares more variance with LAP affect than with the other indices. In addition, we used multiple regression analysis to examine the unique contribution of the PoM when predicting LAP affect in comparison to conventional SWB measures. Table 4 shows that, when predicting LAP affect, the regression coefficient of the PoM remains significant even when the effects of the other SWB measures were controlled, whereas the coefficients for all other SWB measures become non-significant. These results further indicate that the PoM is a measure of well-being that predicts low-arousal positive affect better than conventional measures of SWB.

The incremental validity of the PoM was assessed by hierarchical regression analysis to examine whether the PoM would add to the prediction of psychological ill-being above and beyond the existing measures that evaluate similar constructs, including conventional measures of SWB and LAP affect. Three series of regressions were conducted, each predicting one of the three psychological ill-being indices, including depression, state anxiety, and entrapment. For each analysis, predictors were entered in three steps. In Step 1, age, gender, and social desirability were entered as control variables. Subsequently, in Step 2, we entered one of the indices that shares conceptual space with the PoM (i.e., the SWLS, CHI, affect balance, positivity ratio, and LAP affect). Following this, in Step 3, we entered the PoM.

Table 5 presents the summary of all the regression models. In all the regression models, the change statistics (R^2 change and F change) of the PoM reached the .001 significance level, which reveals that the PoM significantly predicted each of the psychological ill-being indices after the variances of gender, age, and social desirability were controlled in Step 1, and one of the related constructs was controlled in Step 2. The results show that the PoM can explain important variance in each psychological ill-being index above and beyond conventional measures of SWB, including SWLS, CHI, affect balance, and positivity ratio, which strengthens the evidence that the PoM is a distinct and valuable measure of affective well-being. In addition, the PoM predicts psychological ill-being indices more powerfully than LAP affect, whereas the PoM can significantly predict all of the

Table 4 Standardized regression coefficients in multiple regressions predicting the LAP affect from the PoM and conventional measures of SWB

	β	t	p
PoM	.54	5.71	<.001
Affect balance	.11	.98	.330
Positivity ratio	−.14	−1.52	.131
SWLS	.15	1.60	.111
CHI	.03	−.33	.745

psychological ill-being indices when the effects of LAP affect were controlled (see Table 5); LAP affect does not reliably predict indices of psychological ill-being when the effects of the PoM are controlled (CESD: $\beta = .03$, *ns*; STAI-state: $\beta = -.16$, $p < .05$; Entrapment: $\beta = .03$, *ns.*). These results further demonstrate that even though the PoM shares conceptual space with LAP affect, it captures independent variances when predicting psychological ill-being and is arguably a better index of well-being than LAP affect.

In addition to demonstrating the criterion-related and discriminant validity of the PoM, a cross-cultural study was performed in Study 3 to provide further evidence of the construct validity of the PoM. Since peace of mind is a construct of well-being especially emphasized in Chinese culture, we expected that people from a Chinese culture would experience peace of mind more frequently than people from Western culture.

5 Study 3: Cross-Cultural Validation of the Peace of Mind Scale

5.1 Method

5.1.1 Participants

European American and Taiwanese participants were selected to represent people from Western and Chinese cultures, respectively. The cultural values of Chinese culture can be ascribed to Taiwanese participants because Taiwan and China have been culturally bonded for hundreds of years. Taiwanese participants included 84 (42 men and 42 women) undergraduate students from NTU. All of the Taiwanese participants were included in the final data because they were all born and raised in Taiwan. The age of the participants ranged from 19 to 23, with a mean age of 20.2. Participants from the United States were 140 undergraduate students from the University of North Carolina at Chapel Hill. In order to exclude influences from non-Western cultures, only those who were born and raised in the United States or Canada and whose race/ethnicity was white/Caucasian were selected for data analysis. A total of 91 European American participants (29 men and 62 women) were included in the final data analysis. The ages of the participants ranged from 18 to 23, with a mean age of 18.9.

5.1.2 Item Translation of the PoM

Because the items of the PoM were originally written in Chinese, they were translated into English before administration in the US. The translation work involved translating the Chinese version of the PoM into English and then back translating it into Chinese. This was done by two bilingual Chinese-English speakers (one born in Taiwan and raised in the US,

Table 5 Correlations of the PoM with indices of psychological ill-being before and after controlling for related constructs

Step	Predictors	Final β	R^2	R^2_{change}	F_{change}	Sig. of F_{change}
CES-D						
1	Gender, age, & social desirability	−.05, −.09, −.07	.10	.10	4.95	<.01
2	SWLS	−.17	.24	.14	23.63	<.001
3	PoM	−.48***	.38	.14	29.49	<.001
1	Gender, age, & social desirability	−.04, −.10, −.11	.11	.11	4.79	<.01
2	CHI	−.18*	.26	.15	23.91	<.001
3	PoM	−.47***	.40	.14	27.52	<.001
1	Gender, age, & social desirability	−.04, −.09, −.10	.10	.10	4.95	<.01
2	Affect balance	−.28**	.33	.23	46.19	<.001
3	PoM	−.37***	.40	.07	15.49	<.001
1	Gender, age, & social desirability	−.03, −.07, −.09	.09	.09	4.51	<.01
2	Positivity ratio	−.11	.19	.10	15.52	<.001
3	PoM	−.49***	.36	.17	33.71	<.001
1	Gender, age, & social desirability	−.05, −.07, −.10	.10	.10	4.95	<.01
2	LAP	.04	.17	.07	10.53	<.01
3	PoM	−.57***	.36	.19	39.40	<.001
STAI-state						
1	Gender, age, & social desirability	−.03, −.07, −.08	.08	.08	4.07	<.01
2	SWLS	.01	.14	.05	8.24	<.01
3	PoM	−.53***	.32	.18	34.80	<.001
1	Gender, age, & social desirability	−.05, −.12, −.10	.10	.10	4.30	<.01
2	CHI	.08	.14	.04	5.45	<.05
3	PoM	−.59***	.37	.23	42.35	<.001
1	Gender, age, & social desirability	−.03, −.07, −.08	.08	.08	4.07	<.01
2	Affect Balance	−.06	.20	.11	18.42	<.001
3	PoM	−.49***	.32	.12	23.98	<.001
1	Gender, age, & social desirability	−.02, −.07, −.08	.08	.08	3.60	<.05
2	Positivity ratio	−.08	.15	.07	11.39	<.01
3	PoM	−.43***	.31	.16	29.23	<.001
1	Gender, age, & social desirability	−.004, −.06, −.08	.08	.08	4.07	<.01
2	LAP	−.19*	.24	.16	27.34	<.001
3	PoM	−.41***	.34	.10	20.19	<.001
Entrapment Scale						
1	Gender, age, & social desirability	−.12, −.04, −.07	.12	.12	6.11	<.01
2	SWLS	−.14	.26	.14	24.06	<.001
3	PoM	−.52***	.43	.17	38.95	<.001
1	Gender, age, & social desirability	−.04, −.02, −.03	.09	.09	3.87	<.05
2	CHI	−.45***	.46	.37	80.33	<.001
3	PoM	−.37***	.55	.09	23.57	<.001
1	Gender, age, & social desirability	−.11, −.04, −.09	.12	.12	6.11	<.01
2	Affect balance	−.31***	.39	.27	57.81	<.001

Table 5 continued

Step	Predictors	Final β	R^2	R^2_{change}	F_{change}	Sig. of F_{change}
3	PoM	−.39***	.47	.08	19.22	<.001
1	Gender, age, & social desirability	−.10, −.03, −.09	.11	.11	5.40	<.01
2	Positivity ratio	−.21**	.27	.16	28.88	<.001
3	PoM	−.48***	.43	.16	36.38	<.001
1	Gender, age, & social desirability	−.12, −.02, −.09	.12	.12	6.11	<.01
2	LAP	.03	.20	.08	12.56	<.01
3	PoM	−.61***	.41	.22	48.52	<.001

*** $p < .001$, ** $p < .01$, * $p < .05$. *CES-D* Center for Epidemiological Study-Depression Scale, *STAI-state* State Trait Anxiety Inventory-state subscale, *Sig. of F_{Change}* significance of F_{Change}

the other born and raised in Singapore; both were currently living in the US). Disagreements between translators were resolved by discussion.

5.1.3 Materials and Procedure

Taiwanese participants completed the PoM in Chinese with a paper-based questionnaire. Participants from the United States completed the PoM in English through online surveys in two waves at an interval of 2 weeks.

5.2 Results and Discussion

5.2.1 Mean-Level Differences with Similar Factor Structure

Before comparing the mean scores on the PoM, EFA was performed to ensure a similar factor structure of the PoM across the two cultural groups. The principal axis factoring method was used for factor extraction. In the Taiwanese sample, the same single factor structure of Study 1 was found. All seven items of the PoM loaded on the same latent variable, and the alpha reliability of the seven-item scale was .88. However, in the US sample, two latent factors were found using the scores on the PoM measured at time 1. Five items loaded high on the first factor, whereas the two reverse-scored items (item 5 and item 7) loaded high on the second factor. The results indicated that the US sample may have understood the two negatively-worded items differently from the other five items. In order to have a compatible factor structure across the two groups, we excluded the two items and compared the mean score using the new, five-item PoM. Table 6 shows the item characteristics for the five-item PoM in the two samples. The alpha reliability of the five-item PoM was .88 in the Taiwanese sample and .90 in the US sample. The test–retest reliability of the US sample over a 2-week interval was also good ($r = .78$, $p < .001$). The t test statistic between the two mean scores was significant ($t = 3.59$, $p < .001$), revealing that Taiwanese participants scored higher than European Americans on the PoM.

5.2.2 Mean-Level Differences with Measurement Invariance

In order to compare the mean scores of the PoM in the two cultures using stricter criteria, we conducted means and covariance structure analysis (MACS; see Cheung and Rensvold

Table 6 Means, standard deviations, factor loadings, and item–total correlations for the PoM in the U.S. and Taiwan

	U.S.				Taiwan			
	M	SD	F	I–T	M	SD	F	I–T
1. My mind is free and at ease	2.45	0.89	.71	.78	3.21	0.84	.69	.75
2. I feel content and comfortable with myself in daily life	3.22	0.90	.76	.82	3.32	0.82	.76	.79
3. My lifestyle gives me feelings of peace and stability	2.91	1.13	.81	.86	3.37	0.89	.81	.83
4. I have peace and harmony in my mind	2.74	1.05	.89	.90	3.14	0.79	.73	.77
6. The way I live brings me feelings of peace and comfort	2.97	1.10	.84	.87	3.36	0.82	.79	.81
Total score	2.86	0.86			3.23	0.69		

F factor loadings, *I–T* item–total correlations

1999; Little 1997; Vandenberg 2002; Whiteside-Mansell and Corwyn 2003). The purpose of applying MACS is to test whether the participants from different cultural groups ascribed the same meanings to the survey items (Cheung and Rensvold 1999). When comparing the PoM in different cultural groups, MACS can provide fit indices for three nested models at different constraint levels to test different levels of measurement equivalence (Cheung and Rensvold 1999). We used LISREL 8.80 (Joreskog and Sorbom 1996) to perform MACS. Because of the small sample size of the present data, we used a Satorra-Bentler (SB) scaled Chi-squared statistic to evaluate the fit of each model. We also conducted the difference tests for comparing nested models using the SB scaled Chi-squared statistics (Satorra and Bentler 2001). In addition to the Chi-squared test, we used fit indices of RMSEA, CFI, and SRMR. We used the following general cutoffs for model acceptance: less than or equal to .05 for the RMSEA, greater than or equal to .95 for the CFI, and less than .08 for the SRMR (Hu and Bentler 1999).

We began by examining the fit of the baseline model. The fit indices of the five-item PoM across the two cultural groups supported the baseline model, which showed that the structure was similar for the two groups (RMSEA $= .00$; CFI $= 1$; SRMR $= .04$; SB-X^2 (10) $= 7.44$, $p > .05$). Next, equality of factor loadings was imposed to test the weak factorial invariance model. The fit indices of the model also revealed acceptable fit (RMSEA $= .00$; CFI $= 1$; SRMR $= .06$; SB-X^2 (14) $= 12.29$, $p > .05$). The Chi-squared difference test between the baseline model and the weak invariance model was not significant ($\triangle$SB-X^2 (4) $= 8.12$, $p > .05$), revealing that weak invariance was supported. This indicated that the factor structures of the two cultural groups were similar. Then, equality of intercepts across time was imposed to test strong factorial invariance. Some fit indices of the strong invariance model showed acceptable fit (CFI $= .98$; SRMR $= .07$); however, the indices of RMSEA and SB-X^2 test rejected the model (RMSEA $= .10$; SB-X^2 (18) $= 33.84$, $p < .05$). The Chi-squared difference test between the weak invariance and strong invariance was significant ($\triangle$SB-X^2 (4) $= 79.87$, $p < .01$), showing that strong invariance was not supported.

We then tested the partial strong factorial invariance by freeing constraints of the strong factorial invariance until the partial strong invariance model did not have significant differences from the weak invariance model. The purpose of this method was to find items that are eligible for the mean level comparison test for the present study. Through this procedure, the intercept constraint of item 1 (see Table 6) was dropped according to the modification index, and the other four items were retained in the partial strong invariance

model. The fit indices of the partial strong invariance model were satisfactory (RMSEA = .002; CFI = 1; SRMR = .05; SB-X^2 (17) = 17.01, p > .05), and the Chi-squared difference test between the weak invariance model and partial strong factorial model was not significant ($\triangle$SB-X^2 (3) = 7.04, p > .05), revealing that partial strong invariance was supported. The latent factor mean of Taiwanese (M = 3.35, SD = .48) and European Americans (M = 2.99, SD = .82) was compared on the basis of the partial strong invariance model. The t test statistic between the two means was significant (t = 3.61, p < .001), revealing that Taiwanese have higher scores than European Americans on at least four items of the PoM.

In summary, the mean level of the PoM was higher among Taiwanese than among European Americans, regardless of comparing scores on the five-item PoM that have similar factor structures or scores on the four-item PoM selected through constraining measurement invariance across groups. Even with only four or five items, the PoM still capture the core ideas of peace of mind because each item of the PoM captures both the internal states of peacefulness and harmony. These results provide evidence for the cultural specificity of the PoM.

6 General Discussion

The purpose of the present work was to develop a valid and reliable measure that accurately assesses the construct of peace of mind as an affective well-being measure that is sensitive to Chinese cultural values regarding happiness. Study 1 provided evidence for the psychometric properties of the newly developed PoM. The PoM was found to have reliable factor structures across different samples. In Study 2, we further demonstrated that the PoM had high criterion-related validity and good discriminant validity. The PoM was highly correlated with indices of SWB, and psychological ill-being and was shown to uniquely contribute to the LAP affect even when the effects of the conventional measures of SWB were controlled for. The results indicate that the PoM can be regarded as a measure of well-being that subsumes the low-arousal aspects of positive affect and is independent from the conventional measures of SWB. In Study 3, the cross-cultural validation of the PoM showed that Taiwanese participants scored higher than European American participants on the PoM, which suggests that the PoM reflects a form of affective well-being that is valued by Chinese cultures. Taken together, these results provide evidence for the reliability and construct validity of the PoM to capture the harmonious and low-arousal aspects of affective well-being that is neglected by conventional measures of SWB.

6.1 Peace of Mind Differs from Hedonic Happiness

A fundamental argument of the present work is that happiness as valued by people influenced by Chinese culture is very different from the hedonic view of happiness. In order to complement the conventional indices of affective SWB, which consider happiness to be a state where pleasure is maximized and pain is minimized, we developed the PoM as a measure of the experiences of internal peace together with harmony. Using the LAP affect as a validation criterion, the present work also evidenced that peace of mind is distinct from hedonic pleasure. When controlling for the effects of the conventional measures of SWB that reflect hedonic happiness, including affective, cognitive, and

composite indices of well-being, the PoM contributes uniquely to the prediction of the LAP affect. By contrast, all the conventional measures of SWB do not predict the LAP affect above and beyond the PoM. In addition, the results show that, when controlling for conventional measures of SWB, the PoM uniquely contributes to the prediction of psychological ill-being. This suggests not only that the PoM is a robust index of well-being but also that the association between PoM and psychological ill-being is not fully explained by conventional measures of SWB. The results further support our argument that hedonic happiness, as captured by conventional measures of SWB, does not sufficiently reflect well-being within cultures influenced by Chinese values. Therefore, the PoM contributes distinct and valuable information regarding the contours of affective well-being in such cultures.

6.2 Peace of Mind is More than Low-Arousal Positive Affect

Inspired by the cross-cultural finding that Chinese and Asian Americans value the LAP affect to a greater degree than European Americans (Tsai et al. 2006), the emotions included in the LAP affect were adopted as part of the definition of peace of mind and subsequently in the development of the PoM. Due to the high correlation between the construct of peace of mind and the LAP affect, the LAP affect was used as a validation criterion for the PoM. The results not only show the PoM to be highly correlated with the LAP affect but also reveal several distinctions between the two measures. First, the construct of peace of mind includes internal states of peacefulness together with harmony. By contrast, although Tsai et al.'s (2006) measure of the LAP affect includes items related to peacefulness (e.g., peacefulness, serenity, relaxation), it does not include items related to harmony (e.g., harmony, balance, settled). Therefore, the PoM reflects a more complex and balanced state of mind. Second, unlike the measure of the LAP affect, which uses emotional adjectives to capture the extent to which it is experienced (Tsai et al. 2006), the PoM uses sentences to measure peace of mind. Since peace of mind is considered a composite emotional state that includes both internal peace and internal harmony, sentences are better able to capture the simultaneous experiences of peace and harmony within each individual item.

Furthermore, our findings also support the premise that peace of mind and LAP affect should be treated as distinct constructs. In Study 2, the PoM significantly predicted psychological ill-being indices when we controlled the effects of LAP, whereas LAP affect only partially predicted psychological ill-being when we controlled the effects of the PoM. This finding shows that the PoM is a better indicator of mental health compared to LAP affect. Overall, as compared to the measures of LAP affect, the PoM provides a more complete picture of affective well-being that reflects the values of Chinese Culture.

6.3 Limitations and Future Work

The PoM is a tool that has shown both good reliability and validity for measuring internal states of peace of mind. However, as a self-report measure, it has limitations. First, the PoM asks people to report how often they feel internal peace in daily life. However, people can find it difficult to accurately retrieve and assess the frequency of mood experiences in their daily lives (Robinson and Clore 2002). Second, evaluation of the PoM may be easily influenced by one's attitudes toward experiencing peace of mind. People who value the internal state of peace of mind over hedonic happiness may pay more attention to this state

and may therefore tend to report higher frequency of peace of mind than people who value peace of mind to lesser degrees. Third, each item of the PoM was designed to capture internal peace conjoined with internal harmony. As such, analyses using the scale are not able to show the very different psychological processes that may underlie internal peace versus harmony. It will be valuable to develop other ways to capture peace of mind in the future. For example, in our future work, we plan to measure participants' mood fluctuations using an experience sampling method to better observe the frequency of experiencing peace of mind in daily lives. Our aim is to capture both the state of emotional peacefulness and the processes of emotional balancing in people's online mood reports. Moreover, future studies could also consider the use of priming in terms of the cognitive and affective components of peace of mind to examine how they may influence each other. Despite the limitations outlined above, the PoM is reliable in measuring individual differences in experiences of peace of mind, and this can be regarded as a first step toward investigating this new construct.

Since peace of mind is regarded as a state of well-being different from hedonic happiness, the process of achieving peace of mind should also be different from that involved in achieving hedonic happiness. According to previous studies, approaching pleasure and avoiding pain have been regarded as the fundamental principles of achieving a good affective life (Higgins et al. 1999; Kahneman 1999; Peterson 1999). However, maximizing pleasure and minimizing pain should not be the critical process of achieving peace of mind. Instead, we argue that the process of achieving peace of mind might involve balancing between the experiences of pleasure and pain. In future studies, it would be worthwhile to investigate the mood-regulation processes that allow people to revert to their equilibrium state of peace of mind. Furthermore, it would also be helpful to explore the mood-regulation strategies for attaining peace of mind, which may point to useful strategies for people to practice in daily life.

6.4 Conclusion

We propose that the construct of peace of mind captures the affective experiences most valued within Chinese cultural contexts and offers an index of affective well-being that is different from conventional measures. Through three studies, we showed the new Peace of Mind Scale, or PoM, to be a valid index of this distinct form of affective well-being, with convergent, divergent, and predictive validity as well as the predicted differences between Chinese and Western cultures. Therefore, peace of mind is a construct that is worthy of further investigation, and we now have a tool with which this investigation can be conducted.

Appendix: The Peace of Mind Scale

How often do you feel internal peace and ease in your daily life? Use the following scale to indicate your response.

1 = Not at all
2 = Some of the time

3 = Often

4 = Most of the time

5 = All of the time

____ 1. My mind is free and at ease.

____ 2. I feel content and comfortable with myself in daily life.

____ 3. My lifestyle gives me feelings of peace and stability.

____ 4. I have peace and harmony in my mind.

____ 5. It is difficult for me to feel settled. (–)

____ 6. The way I live brings me feelings of peace and comfort.

____ 7. I feel anxious and uneasy in my mind. (–)

Notes. Items marked (–) should be scored in reverse. The average of the item scores is an overall measure of peace of mind, with high scores indicating greater peace of mind.

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