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A cross-cultural investigation of trait emotional intelligence in Hong Kong and the UK



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ABSTRACT

Trait emotional intelligence (EI) has received considerable empirical attention over the last decade, especially in Western individualist societies. However, little is known about the construct in Eastern collectivist societies. The present study investigated cultural differences in trait EI between Hong Kong and the UK (n = 474) using the Trait Emotional Intelligence Questionnaire. Comparison of group factor structures revealed satisfactory congruence coefficients for the four trait EI factors of Well-being, Sociability, Emotionality, and Self-control. In addition, results showed pronounced cross-cultural variation in global trait EI scores, with British participants scoring consistently higher than their Chinese counterparts. Results from the Chinese sample also yielded support for the cultural accommodation effect, viz. that multilingual individuals respond in a manner that favours or conforms to the culture associated with the language of the questionnaire. Findings are discussed with reference to cross-cultural applications of trait EI theory.

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1. Introduction

Trait emotional intelligence (trait EI or trait emotional self-efficacy) refers to a constellation of emotional self-perceptions located at the lower levels of personality hierarchies (Petrides, Pita, & Kokkinaki, 2007). The construct provides a comprehensive operationalization of people's self-perceptions of their emotional abilities and lies wholly outside the taxonomy of human cognitive ability (Carroll, 1993).

Relevant research has developed considerably over the past decade, with recent studies demonstrating that trait EI is related to mental health (Martins, Ramalho, & Morin, 2010), socioemotional outcomes (Frederickson, Petrides, & Simmonds, 2012), emotion regulation (Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008), and affective decision-making (Sevdalis, Petrides, & Harvey, 2007). Despite all this research, studies examining cultural differences in trait EI remain few and far between.

1.1. Culture and personality

Human societies are typically divided into two broad categories: collectivist and individualist (Triandis, 1995). In collectivist

cultures, such as China and Japan, there is strong emphasis on in-group achievement and interdependence, whilst in individualist cultures, such as Western Europe and North America, personal success and independence are prioritised over group goals.

A growing body of research has highlighted the impact of culture on psychological processes. For example, cultural comparisons have found that East Asian individuals tend to be more self-critical and have a stronger focus on negative self-relevant information than North Americans (Falk, Heine, Yuki, & Takemura, 2009; Heine & Hamamura, 2007; Heine et al., 2001; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997), are more likely to engage in compensatory self-enhancement (Heine et al., 2001), and exhibit fewer and weaker self-serving biases (Falk et al., 2009; Heine & Hamamura, 2007; Kitayama et al., 1997). Furthermore, in a large sample of undergraduates, Kitayama et al. (1997) found that American students were more likely to engage in self-enhancement, which can help boost self-esteem and autonomy, whilst Japanese equals were more likely to focus on self-criticism, which can promote interdependence of the self with others. These findings dovetail with Campbell and colleagues (Campbell et al., 1996) study, reporting that self-esteem is less important to the self-identity of Japanese students than to their North American peers.

The apparent disparity in self-serving bias across Eastern and Western societies may provide an explanation for the cultural differences in subjective well-being (SWB). To date, studies have

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revealed that individualist societies tend to have higher SWB levels and one explanation for this finding is that cultures differ in the value they place on personal happiness (Diener, Diener, & Diener, 1995). While Eastern cultures place great emphasis on group cohesion, Western societies, by endorsing individualistic values, provide individuals with the freedom to pursue personal fulfilment, which, in turn, is thought to have a positive impact on SWB (Veenhoven, 1999).

Cross-cultural comparisons have also identified differences in positive affect and personality traits. For instance, Eysenck's "Giant Three" group have compared personality data from over 30 countries across all continents (Barrett, Petrides, Eysenck, & Eysenck, 1998; Furnham, Eysenck, & Saklofske, 2008) and so have the "Big Five" group (e.g., McCrae, Terracciano, et al., 2005). Results consistently show that whilst the structure of the personality measure is reliable and similar across countries, there are small, replicable, and meaningful national mean score differences between them.

Studies have further revealed that British participants score higher than Chinese or Japanese participants on constructs associated with trait EI, such as happiness, extraversion, and psychological well-being (Furnham & Cheng, 1999; Furnham, Cheng, & Shirasu, 2001).

To date, trait EI has been extensively examined throughout Western individualist cultures. However, despite some crosscultural investigations examining measurement invariance (e.g., Fukuda, Saklofske, Tamaoka, & Lim, 2012; Fukuda et al., 2011; Li, Saklofske, Bowden, Fung, & Yan, 2012; Martskvishvili, Arutinov, & Mestvirishvili, 2013), there is a serious dearth of trait EI research in Eastern collectivist cultures.

The present study aimed to investigate the potential cultural variations in trait EI between Hong Kong and Britain. Extant literature has highlighted cultural differences between individualist and collectivist societies in variables positively associated with trait EI (e.g., self-esteem, subjective well-being, happiness, extraversion and mental health; Furnham & Cheng, 1999; Furnham et al., 2001). Consequently, Chinese and British participants are expected to evidence markedly different trait EI score profiles. Furthermore, given the reports of emotion-related gender differences (Argyle, 1990; Petrides, Furnham, & Martin, 2004), the present study will also compare the trait EI scores of male and female participants across the Hong Kong and British samples.

1.2. Cultural accommodation effect

Another aim of the study was to test the cultural accommodation hypothesis by examining the impact of language use on trait EI. Previous studies have indicated that the language of a questionnaire can influence participants' response style and that individuals tend to respond to questions in a manner that favours or accommodates the culture associated with that tongue (Bond & Yang, 1982; Harzing, 2006). As individuals master a second language, they also acquire some of the cultural attitudes and values associated with it. Ralston, Cunni, and Gustafson (1995), for instance, found that Hong Kong Chinese managers using an English-language questionnaire showed more individualistic values compared to managers using the Chinese version, thus suggesting a cultural accommodation effect.

A large-scale investigation by Harzing, Maznevski, et al. (2002), yielded further support for the accommodation thesis. Results from 963 undergraduates revealed that when bilinguals were presented with English-language questionnaires, they responded in a manner that was more representative of native-English speakers than of their own culture. Furthermore, the study found that the cultural accommodation effect also exists in languages that are closer to English than Chinese, such as those belonging to sub-groups of the Indo-European family (e.g., Dutch, German, and Spanish).

These findings corroborate earlier research and illustrate the influential role of language in bilinguals' responses to questions concerning cultural norms and values.

Although scarce, there also appears to be some evidence suggesting that bilinguals exhibit cross-language differences in personality. In their two-part study, Chen and Bond (2010) investigated the cultural accommodation hypothesis through language effects on personality as perceived by the self and by others. Findings from the first part of this study revealed that Chinese–English bilinguals perceived Extraversion and Openness to Experience as traits emblematic of Western culture. In the second part, all participants were interviewed by a Caucasian and a Chinese interviewer in both English and Cantonese. Observer ratings showed that while conversing with Chinese interviewers, bilinguals were perceived as embodying more Western traits when speaking in English than in their native language.

Similarly, Ramírez-Esparza, Gosling, Benet-Martínez, Potter, and Pennebaker (2006) examined the personality profiles of Spanish-English bilinguals and showed that they reported higher levels of Extraversion, Agreeableness, and Conscientiousness in English than in Spanish, a pattern closely mirroring the personality profiles of their monolingual American counterparts. Ramirez-Esparza and colleagues interpreted these results in the context of cultural frame switching (Hong, Morris, Chiu, & Benet-Martínez, 2000), a theory conceptually parallel to the accommodation hypothesis, suggesting that bilinguals exhibit language-dependent shifts in culture-related values and personality.

Taken together, these studies provide strong support for the cultural accommodation hypothesis and present valuable insights into the dynamic interplay between language, culture, and the self.

Based on the literature outlined above, it was hypothesised that there will be significant differences in global trait EI scores among the three study groups: British participants completing the English version of the TEIQue (BE), Chinese participants completing the English version of the TEIQue (CE), and Chinese participants completing the Chinese version of the TEIQue (CC). More specifically, it was hypothesised (H1) that the BE group will score higher than the CE and CC groups, and (H2) that the CE group will score higher than the CC group as a function of cultural accommodation. In addition to these hypotheses, as in previous studies (e.g., Sánchez-Ruiz, Pérez-González, & Petrides, 2010), we explored the data for main effects and interactions with gender.

2. Method

2.1. Participants

Participants were 474 adults, of whom 293 were from Hong Kong (141 males) and 185 were from Britain (82 males). A total of 120 Chinese participants (59 males) completed the English version of the TEIQue (CE group), while the remaining 173 participants (82 males) completed the Chinese adaptation of the measure (CC group). They ranged in age from 19 to 64 years. The mean age in the CC group was 33.01 years (SD = 9.80), in the CE group 30.56 years (SD = 8.90), and in the BE group 37.84 years (SD = 10.36).

2.2. Measures

2.2.1. Trait emotional intelligence

Trait EI was measured using the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009), a 153-item inventory that provides comprehensive coverage of the trait EI sampling domain. This measure yields scores on 15 emotion-related facets, four factors (Well-being, Self-control, Emotionality, and Sociability), and

global trait El. Participants are required to respond on a 7-point Likert scale ranging from 'completely disagree' to 'completely agree'.

3. Results

3.1. Internal consistency

Internal reliability analysis of the TEIQue variables revealed robust alpha values overall, with the majority exceeding 0.7 (See Table 1).

3.2. Factor analyses

Three factor analyses were performed on the data using principal axis factoring with OBLIMIN rotation in order to determine the factor structure of trait El in each of the three samples. Factor selection was guided by the scree plot methods.

For the BE group, the percentages of variance explained by the first six unrotated factors were respectively 42.14% 12.59%, 10.34%, 7.93%, 4.94% and 4.15%. Four factors were extracted based the scree plot, collectively accounting for 61.70% of the variance. The scree plot for the BE group also indicated that there were four possible common factors emerging from the data set. The rotated factor pattern matrix is presented in Table 2. As can be seen, the facets of emotion regulation, low impulsivity, and stress management loaded onto Factor 1 (Self-control). The facets of emotion expression, emotion perception, empathy, and relationships loaded onto Factor 2 (Emotionality), while the facets of emotion management, assertiveness, and social awareness loaded onto Factor 3 (Sociability). Last, the facets of happiness, optimism, and self-esteem loaded onto Factor 4 (Well-being).

For the CE group, the percentages of variance explained by the first six unrotated factors were respectively 43.43%, 12.25%, 9.80%, 7.03%, 5.22% and 4.66%. Four factors were extracted based on the scree plot, collectively accounting for 60.82% of the variance in this group. Subsequently, these factors were rotated via the OBLIMIN algorithm (delta = 0). The resultant factor pattern matrix is given in Table 3. As can be seen, the facets of optimism, self-esteem, and happiness loaded onto Factor 1 (Well-being). The facets of emotion regulation, stress management, and low impulsivity loaded on to Factor 2 (Self-control), while the facets of empathy,

Table 1 Cronbach's alpha (α) values for trait EI at the global, factor, and facet levels.

	Cronbach's alpha (α)				
	BE	CE	СС		
Global trait EI scores	.90	.90	.91		
Well-being	.77	.83	.75		
Self-control	.83	.78	.82		
Emotionality	.80	.79	.80		
Sociability	.76	.80	.82		
Adaptability	.69	.57	.50		
Assertiveness	.72	.53	.59		
Emotion expression	.89	.83	.80		
Emotion management	.58	.71	.77		
Emotion perception	.69	.74	.77		
Emotion regulation	.80	.80	.80		
Empathy	.65	.59	.72		
Happiness	.81	.90	.85		
Low impulsivity	.78	.72	.71		
Optimism	.68	.71	.53		
Relationships	.75	.63	.65		
Self-esteem	.73	.70	.74		
Self-management	.77	.71	.71		
Self-motivation	.58	.67	.62		
Social awareness	.72	.82	.81		

Table 2Factor pattern matrix for the British–English group.

	Factor			
	Self- control	Emotionality	Sociability	Well- being
Emotion regulation	.80	.09	.07	04
Low impulsivity	.77	14	03	.10
Stress management	.71	.00	.06	15
Emotion expression	12	81	.01	16
Emotion perception	.00	− .73	.18	.08
Empathy	.18	67	01	.01
Relationships	.20	50	25	27
Emotion	07	17	.79	.05
management				
Assertiveness	.18	.13	.71	14
Social awareness	.19	30	.37	23
Happiness	09	10	.01	− .83
Optimism	.11	.04	.04	−.77
Self-esteem	.21	06	.28	33

relationships, emotion perception, and emotion expression loaded onto Factor 3 (Emotionality). Last, the facets of emotion management, assertiveness, and social awareness loaded onto Factor 4 (Sociability).

Finally, for the CC group too, the percentages of variance explained by the first six unrotated factors were respectively 46.24%, 12.01%, 9.34%, 7.05%, 4.41% and 4.03%. Four factors extracted based on the scree plot, collectively accounting for 63.73% of the variance in this group. Subsequently, these four factors were rotated via the OBLIMIN algorithm (delta = 0). The resultant factor pattern matrix is given in Table 4. As shown in that table, the facets of emotion regulation, stress management, and low impulsivity loaded onto Factor 1 (Self-control). The facets of social awareness, emotion management, assertiveness, emotion expression, self-esteem, and emotion perception loaded onto Factor 2 (Sociability), while the facets of relationships and empathy loaded onto Factor 3 (Emotionality). Last, the facets of happiness and optimism loaded onto Factor 4 (Well-being).

3.3. Comparison of the British–English (BE), Chinese–English (CE), and Chinese–Chinese (CC) factor structures

We subsequently computed coefficients of congruence between the three permutations of factor pattern matrices (BE vs. CE, BE vs. CC, vs. CE and CC) using Watkins's (2002) Coefficient of Congruence Software. The results indicated that the congruence coefficients across the three factor solutions were generally

Table 3Factor pattern matrix for the Chinese–English group.

	Factor						
	Well- Self- being control		Emotionality	Emotionality Sociability			
Optimism	.78	.06	06	.07			
Self-esteem	.75	.10	02	.05			
Happiness	.74	06	.12	.06			
Emotion regulation	09	.91	09	.06			
Stress management	.16	.74	.01	.01			
Low impulsivity	.06	.50	.21	02			
Empathy	13	.08	.71	.07			
Relationships	.30	.08	.65	23			
Emotion perception	.05	.12	.62	.23			
Emotion expression	.08	16	.55	.25			
Emotion management	.07	.05	.12	.68			
Assertiveness	.35	.13	08	.54			
Social awareness	.15	.07	.22	.53			

Table 4Factor pattern matrix for the Chinese–Chinese group.

	Factor			
	Self- control	Sociability	Emotionality	Well- being
Emotion regulation	.84	.04	.01	.03
Stress management	.77	08	06	.10
Low impulsivity	.60	.04	.22	.05
Social awareness	06	− .87	.12	.02
Emotion management	06	86	.00	07
Assertiveness	.22	60	22	.05
Emotion expression	11	53	.33	.21
Self-esteem	.22	−.50	12	.31
Emotion perception	.31	- .45	.31	.02
Relationships	.09	.01	.67	.20
Empathy	.29	17	.56	03
Happiness	03	.08	.17	.86
Optimism	.14	10	14	.64

satisfactory (see Table 5). A possible exception concerned the Emotionality and Sociability factors, whose coefficient of congruence in the BE vs. CC comparisons hovered about .85, which is the lowerend threshold for factor similarity (MacCallum, Widaman, Zhang, & Hong, 1999).

3.3.1. Group score comparisons

To test hypothesis 1, group and gender differences in trait EI scores were assessed via a two-way analysis of variance. This revealed a significant main effect of group on global trait EI scores, F(2, 435) = 135.71, p < .001, with the BE group scoring significantly higher (M = 5.37, SD = 0.51), than the CE (M = 4.61, SD = 0.50) and CC groups (M = 4.45, SD = 0.53). In addition, results from post hoc analysis indicated that the CE group had significantly higher global trait EI scores compared to the CC group (p < .05). There was no main effect of gender (F < 1, ns), and the interaction between the two independent variables was not significant (F < 1, ns).

A MANOVA was performed to probe hypothesis 1 further. The trait EI factors of Sociability, Emotionality, Well-being, and Self-control were entered as dependent variables, with group (BE, CE, & CC) and gender (male vs. female) as the independent variables. Descriptive statistics are presented in Table 6. There were significant multivariate effects of group, F(8, 864) = 31.57, p < .001; $\eta_p^2 = 0.23$, and gender, F(4, 432) = 25.22, p < .001; $\eta_p^2 = 0.19$. In addition, there was a significant group * gender interaction F(8, 864) = 2.92, p = .003; $\eta_p^2 = 0.26$.

Regarding the effect of group, follow up ANOVAs indicated that the BE group scored significantly higher than the CE and CC groups on the four TElQue factors of Sociability F(2, 435) = 130.96, p < .001, $\eta_p^2 = 0.38$; Emotionality F(2, 435) = 60.16, p < .001, $\eta_p^2 = 0.22$, $\eta_p^2 = 0.38$, Self-control F(2, 435) = 59.46, p < .001, $\eta_p^2 = 0.22$, and Well-being F(2, 435) = 67.05, p < .001, $\eta_p^2 = 0.24$. In addition, post hoc comparisons revealed that the CE group scored significantly higher than the CC group on the Sociability factor (p < .01). Furthermore, there was a statistical trend towards higher scores on the Well-being factor for the CE versus the CC group (p = .078). No

Table 5Congruence coefficients between the four factors statistically derived from the British–English, Chinese–English, and Chinese–Chinese factor pattern matrices.

	BE-CE	BE-CC	CE-CC
Self-control	.944	.943	.959
Emotionality	969	848	.936
Sociability	.931	853	915
Well-being	914	965	.896

Table 6Means and standard deviations for global trait EI and the four trait EI factor scores.

	BE		CE		CC		Male		Female	
	M	SD	Μ	SD	M	SD	M	SD	Μ	SD
Global trait El	5.37	.53	4.61	.50	4.45	.53	4.86	.65	4.76	.67
Well-being	5.58	.69	4.89	.74	4.69	.70	5.04	.76	5.05	.85
Self-control	5.16	.77	4.45	.63	4.39	.68	4.86	.73	4.46	.80
Emotionality Sociability	5.42 5.31	.67 .60	4.82 4.40	.60 .63	4.71 4.15	.65 .71	4.91 4.70	.71 .85	5.06 4.53	.72 .81

Note. BE = British-English, CE = Chinese-English, CC = Chinese-Chinese.

significant differences were found between the CE and CC groups (p > .05) on the Emotionality or Self-control factors.

Regarding the effect of gender, follow up ANOVAs indicated that females scored significantly higher on Emotionality than males F(1, 435) = 11.15, p = .001, $\eta_p^2 = 0.25$. In contrast, males scored higher on Self-control than females F(1, 435) = 30.74, p < .001, $\eta_p^2 = 0.66$. No gender effects emerged for Sociability or Well-being.

Last, analysis returned a significant language * gender interaction effect on the Emotionality factor F(2,435) = 6.724, p = .001, $\eta_p^2 = 0.30$. Females scored significantly higher than males in the BE (males: M = 5.25, SD = 0.73, females: M = 5.63, SD = 0.54) and CE groups (males: M = 4.66, SD = 0.53, females: M = 4.97, SD = 0.62), but not in the CC group (males: M = 4.76, SD = 0.67, females: M = 4.66, SD = 0.62). Overall, these findings provide support for hypothesis 2.

4. Discussion

The aim of the present study was twofold: to investigate mean differences in trait EI between Hong Kong and British adults (H1) and to assess the cultural accommodation hypothesis in the Hong Kong sample (H2). Factor analysis of the TEIQue items has again confirmed the cross-cultural stability of trait EI (see Freudenthaler, Neubauer, Gabler, Scherl, & Rindermann, 2008; Martskvishvili et al., 2013; Mikolajczak, Luminet, Leroy, & Roy, 2007; Petrides et al., 2007). Our study applied the TEIQue to populations in both Hong Kong and the UK, with the factor patterns showing considerable similarity between them. In this, like in other studies, the construct appears to have stood the test of cross-cultural verification. According to Triandis (1999), findings from social psychology research should not be automatically generalised across cultures. Consequently, the universal applicability of certain established theories and practices in the field must be reviewed and verified empirically, especially if they are overly reliant on data from individualistic cultures. Our study makes a contribution to this end.

4.1. Mean score comparisons between the BE, CE, and CC groups

Analysis revealed significant cultural differences in global trait EI, with British participants scoring higher in comparison to their Chinese peers. Further analysis revealed significant group differences on Well-being, Self-control, Emotionality and Sociability, with British participants scoring higher than Chinese participants on all four factors. These results provide unequivocal support for hypothesis H1a and converge with extant research suggesting that there is strong focus on positive self-relevant information in individualist societies, while focus on negative self-relevant information prevails in collectivist societies (Falk et al., 2009; Heine & Hamamura, 2007; Heine et al., 2001; Kitayama et al., 1997).

Importantly, our data corroborate earlier research reporting higher levels of subjective well-being in Western societies (Diener et al., 1995), and provide support for the hypothesis that

emphasising one's own beliefs and desires often results in greater happiness and self-esteem. This also appears in line with cross-cultural research suggesting that individuals from Western cultures are more likely to perceive themselves in a positive manner, compared to individuals from Eastern cultures (e.g., Campbell et al., 1996; Kitayama et al., 1997).

The finding that British participants score higher on facets relating to Emotionality (e.g., emotion expression), Sociability (e.g., assertiveness), and Well-being (e.g., happiness), is in accord with the norms and values prevalent in individualist societies and indicative of meaningful cultural variation in trait EI scores. Seen from a different perspective, the results suggest that cultural differences in trait EI reflect a similar pattern to the variation reported in related personality variables like Extraversion (Chen & Bond, 2010; Furnham & Cheng, 1999; Furnham et al., 2001; Ramírez-Esparza et al., 2006).

4.2. Cultural accommodation effect and gender differences

Analysis also supported our second hypothesis. Findings showed that Chinese participants completing the English version of the TEIQue scored higher on global trait EI and the TEIQue factor of sociability, compared to Chinese participants completing the TEIQue in their native language. We suggest that these findings are a manifestation of the cultural accommodation effect proposed by Bond and Yang (1982) and reinforce earlier research illustrating the influential role of language in bilinguals' responses to questions concerning cultural norms and values (Chen & Bond, 2010; Harzing, Maznevski, et al., 2002; Ralston et al., 1995; Ramírez-Esparza et al., 2006).

While there were no gender differences in global trait EI scores, there were significant differences in the factors of Emotionality and Self-control, with females scoring higher on Emotionality and males scoring higher on Self-control. In addition, findings revealed a culture by gender interaction on Emotionality. British and CE females scored higher than British and CE males, respectively, but no such differences emerged in the CC group. Individuals with higher scores on Emotionality perceive themselves as more in touch with their feelings and better able to sustain close relationships (Petrides, 2009). Therefore, our findings are in agreement with existing research, suggesting that females have markedly higher emotional capacity (to understand, express, and respond to emotional information), while males are more effective at controlling their emotions (Mikolajczak et al., 2007).

One possible explanation for the lack of a gender effect in the CC group is that gender differences in emotion expressivity vary as a function of individualistic and collectivistic values (Fischer, Rodriguez Mosquera, van Vianen, & Manstead, 2004). In Western societies, females are typically socialised into a more caring and nurturing role that emphasises emotionality. Males, however, are socialised to be more assertive and are expected to conceal and control their emotions (Fischer et al., 2004). Considering the importance placed on emotions and the differential social roles assigned to men and women in Western societies, the experience and expression of emotion is likely to be gender sensitive. In contrast, personal feelings are not considered as relevant or constructive to the social order in collectivist societies and are therefore deemed less important in the presence of other values (e.g., uniformity, obligations to society, and interpersonal harmony; Oyserman & Lee, 2008). Consequently, it is reasonable to suggest that the collectivist norms endorsed by Eastern societies encourage both males and females to express emotion in similar ways.

The validation of the 'cultural accommodation effect' as proposed by Bond and Yang (1982) suggests that social science questionnaires should, as far as possible, be embedded in the native language of respondents. This would minimise the effect of

cultural influence on the validity of empirical findings (Hambleton, 2001), and would usually involve a sensitive analysis of the meaning equivalence of statements, in addition to basic back-translation procedures. More importantly, social rules around psychological characteristics like hubris and humility constrain various cultural groups from expressing certain beliefs or behaviours. For instance, Swami and Furnham (2010) in a range of cross-cultural studies of self-estimated intelligence found that Asian cultures tend to influence participants in a way that leads them to underestimate their intelligence, whereas the opposite is true in the West.

Although the relatively large sample size of the study and the high reliability of the instrument are important methodological strengths, our findings require replication and further investigation across different cultures. Specifically in relation to Hong Kong, it should be remembered that it was under British colonial rule for over a century, which means that individuals may be harbouring a mixture of individualistic and collectivist values. As a result, populations from more traditional cultures (e.g., mainland China, Japan, and Taiwan) may perhaps provide a better representation of collectivist cultures and reveal a more marked contrast between Eastern and Western societies. Future research could examine trait EI in cultures that have hitherto been heavily under-researched (e.g., Arab and sub-Saharan countries). Such investigations will address a significant gap in the literature and pave the way for a culturally sensitive profiling of the affective aspects of human personality.

References

Argyle, M. (1990). The psychology of interpersonal behaviour. Harmondsworth, UK: Penguin.

Barrett, P. T., Petrides, K. V., Eysenck, S. B. G., & Eysenck, H. J. (1998). The Eysenck personality questionnaire: An examination of the factorial similarity of P, E, N, and L across 34 countries. *Personality and Individual Differences*, 25, 805–819. http://dx.doi.org/10.1016/S0191-8869(98)00026-9.

Bond, M. H., & Yang, K. (1982). Ethnic affirmation versus cross-cultural accommodation: The variable impact of questionnaire language on Chinese bilinguals from Hong Kong. *Journal of Cross-Cultural Psychology*, 13, 169–185. http://dx.doi.org/10.1177/0022002182013002003.

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology*, 70, 141–156. http://dx.doi.org/10.1037/0022-3514.70.1.141.

Carroll, J. B. (1993). Human cognitive abilities: A survey of factor-analytic studies. New York: Cambridge University Press.

Chen, S. X., & Bond, M. H. (2010). Two languages, two personalities? Examining language effects on the expression of personality in a bilingual context. Personality and Social Psychology Bulletin, 36, 1514–1528. http://dx.doi.org/10.1177/0146167210385360.

Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, 69, 851–864. http://dx.doi.org/10.1037/0022-3514.69.5.851.

Falk, C. F., Heine, S. J., Yuki, M., & Takemura, K. (2009). Why do Westerners self-enhance more than East Asians? *European Journal of Personality*, 23, 183–203. http://dx.doi.org/10.1002/per.715.

Fischer, A. H., Rodriguez Mosquera, P. M., van Vianen, A., & Manstead, A. S. R. (2004). Gender and culture differences in emotion. *Emotion*, 4, 87–94. http://dx.doi.org/

Frederickson, N., Petrides, K. V., & Simmonds, E. (2012). Trait emotional intelligence as a predictor of socioemotional outcomes in early adolescence. Personality and Individual Differences, 52, 317–322. http://dx.doi.org/10.1016/j.paid.2011.10. 034

Freudenthaler, H. H., Neubauer, A. C., Gabler, P., Scherl, W. G., & Rindermann, H. (2008). Testing and validating the Trait Emotional Intelligence Questionnaire (TEIQue) in a German-speaking sample. *Personality and Individual Differences*, 45, 673–678. http://dx.doi.org/10.1016/j.paid.2008.07.014.

Fukuda, E., Saklofske, D. H., Tamaoka, K., Fung, T. S., Miyaoka, Y., & Kiyama, S. (2011). Factor structure of Japanese versions of two emotional intelligence scales. *International Journal of Testing*, 11, 71–92. http://dx.doi.org/10.1080/15305058.

Fukuda, E., Saklofske, D. H., Tamaoka, K., & Lim, H. (2012). Factor structure of the Korean version of Wong and Law's emotional intelligence scale. Assessment, 19, 3–7. http://dx.doi.org/10.1177/1073191111428863.

Furnham, A., & Cheng, H. (1999). Personality as predictor of mental health and happiness in the East and West. *Personality and Individual Differences*, 27, 395–403. http://dx.doi.org/10.1016/S0191-8869(98)00250-5.

- Furnham, A., Cheng, H., & Shirasu, Y. (2001). Lay theories of happiness in the east and west. *Psychologia*, 44, 173–187.
- Furnham, A., Eysenck, S. B. G., & Saklofske, D. H. (2008). The Eysenck personality measures: Fifty years of scale development. In G. J. Boyle, G. Matthews, & D. H. Saklofske (Eds.), *The Sage handbook of personality theory and assessment* (pp. 199–218). London: Sage.
- Hambleton, R. K. (2001). The next generation of the ITC test translation and adaptation guidelines. European Journal of Psychological Assessment, 17, 164–172. http://dx.doi.org/10.1027//1015-5759.17.3.164.
- Harzing, A.-W. (2006). Response styles in cross-national survey research: A 26-country study. *International Journal of Cross-Cultural Management*, 6, 243–266. http://dx.doi.org/10.1177/1470595806066332.
- Harzing, A.-W., & Maznevski, M.(with country collaborators). (2002). The interaction between language and culture: A test of the cultural accommodation hypothesis in seven countries. Language and Intercultural Communication, 2, 120–139. http://dx.doi.org/10.1080/14708470208668081.
- Heine, S. J., & Hamamura, T. (2007). In search of East Asian self-enhancement. Personality and Social Psychology Review, 11, 1–24. http://dx.doi.org/10.1177/ 1088868306294587.
- Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., et al. (2001). Divergent consequences of success and failure in Japan and North America: An investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology*, 81, 599–615. http://dx.doi.org/10.1037/0022-3514.81.4.599.
- Hong, Y.-Y., Morris, M. W., Chiu, C.-Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720. http://dx.doi.org/10.1037/0003-066X.55.7.709.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. Journal of Personality and Social Psychology, 72, 1245–1267. http://dx.doi.org/10.1037//0022-3514.72.6.1245.
- Li, T., Saklofske, D. H., Bowden, S., Fung, T., & Yan, G. (2012). The measurement invariance of the Wong and Law Emotional Intelligence Scale (WLEIS) across three Chinese university student groups from Canada and China. *Journal of Psychoeducational Assessment*, 30, 439–452. http://dx.doi.org/10.1177/ 0734282912449449.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. Psychological Methods, 4, 84–99. http://dx.doi.org/10.1037/1082-989X.4.1.84.
- Martins, A., Ramalho, N., & Morin, E. (2010). A comprehensive meta-analysis of the relationship between emotional intelligence and health. *Personality and Individual Differences*, 49, 554–564. http://dx.doi.org/10.1016/j.paid.2010.05.
- Martskvishvili, K., Arutinov, L., & Mestvirishvili, M. (2013). A psychometric investigation of the Georgian version of the Trait Emotional Intelligence Questionnaire. European Journal of Personality Assessment, 29, 84–88. http:// dx.doi.org/10.1027/1015-5759/a000135.
- McCrae, R. R.Terracciano and 78 Members of the PPC Project. (2005). Universal features of personality traits from the observers's perspective: Data from 50

- cultures. Journal of Personality and Social Psychology, 88, 547–561. http://dx.doi.org/10.1037/0022-3514.88.3.547.
- Mikolajczak, M., Luminet, O., Leroy, C., & Roy, E. (2007). Psychometric properties of the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides & Furnham, 2003). Journal of Personality Assessment, 88, 338–353. http://dx.doi.org/10.1080/ 00223890701333431
- Mikolajczak, M., Nelis, D., Hansenne, M., & Quoidbach, J. (2008). If you can regulate sadness, you can probably regulate shame: Associations between trait emotional intelligence, emotion regulation and coping efficiency across discrete emotions. Personality and Individual Differences, 44, 1356–1368. http://dx.doi.org/10.1016/j.paid.2007.12.004.
- Oyserman, D., & Lee, S. W. S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin*, 134, 311–342. http://dx.doi.org/10.1037/0033-2909.134.2.311.
- Petrides, K. V. (2009). Technical manual for the Trait Emotional Intelligence Questionnaires (TEIQue). London: London Psychometric Laboratory.
- Petrides, K. V., Furnham, A., & Martin, G. N. (2004). Estimates of emotional and psychometric intelligence: Evidence for gender-based stereotypes. *Journal of Social Psychology*, 144, 149–162. http://dx.doi.org/10.3200/SOCP.144.2.149-162.
- Petrides, K. V., Pita, R., & Kokkinaki, F. (2007). The location of trait emotional intelligence in personality factor space. *British Journal of Psychology*, 98, 273–289. http://dx.doi.org/10.1348/000712606X120618.
- Ralston, D. A., Cunni, M. K. V., & Gustafson, D. J. (1995). Cultural accommodation: The effect of language on the responses of bilingual Hong Kong Chinese Managers. *Journal of Cross-Cultural Psychology*, 26, 714–727. http://dx.doi.org/ 10.1177/002202219502600612.
- Ramírez-Esparza, N., Gosling, S. D., Benet-Martínez, V., Potter, J. P., & Pennebaker, J. W. (2006). Do bilinguals have two personalities? A special case of cultural frame switching. *Journal of Research in Personality*, 40, 99–120. http://dx.doi.org/10.1016/j.jrp.2004.09.001.
- Sánchez-Ruiz, M. J., Pérez-González, J. C., & Petrides, K. V. (2010). Trait emotional intelligence profiles of students from different university faculties. Australian Journal of Psychology, 62, 51–57. http://dx.doi.org/10.1080/ 00049530903312907.
- Sevdalis, N., Petrides, K. V., & Harvey, N. (2007). Trait emotional intelligence and decision-related emotions. *Personality and Individual Differences*, 42, 1347–1358. http://dx.doi.org/10.1016/j.paid.2006.10.012.
- Swami, V., & Furnham, A. (2010). Self-assessed intelligence: Inter-ethnic, rural-urban, and sex differences in Malaysia. *Learning and Individual Differences*, 20, 51-55. http://dx.doi.org/10.1016/j.lindif.2009.11.002.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press. Triandis, H. C. (1999). Cross-cultural psychology. *Asian Journal of Social Psychology*, 2, 127–143. http://dx.doi.org/10.1111/1467-839X.00029.
- Veenhoven, R. (1999). Quality-of-life in individualistic society. Social Indicators Research, 48, 157–186. http://dx.doi.org/10.1023/A:1006923418502.
- Watkins, M. W. (2002). Monte Carlo PCA for parallel analysis (computer software). State College, PA: ED & Psych Associates.