

# Relationship between Personality Traits and Emotion Regulation Strategies for Chinese College Students

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**ABSTRACT**— *To explore the relationship between personality and emotion regulation strategies in Chinese college students, a total of 426 subjects completed Emotion Regulation Questionnaire (ERQ) and the Seven-Factor Chinese Personality Scale (QZPS-SF). Cognitive reappraisal significantly correlated with all the seven dimensions of Chinese personality, while expressive suppression only significantly correlated with extroversion, emotionality, kindness. Path analysis showed that human relations, ways of life and kindness could predict cognitive reappraisal, and kindness, emotionality could predict expressive suppression. Personality traits could predict emotion regulation strategies significantly.*

**Keywords**--- Emotion Regulation Strategies; Cognitive Reappraisal; Expressive Suppression; The Seven-Factor Chinese Personality Scale (QZPS-SF).

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## 1. INTRODUCTION

Emotion regulation refers to the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions (Gross, 1998a). According to this definition by Gross, Emotion regulation develops during emotion generating (John & Gross, 2007). Gross presented 5 emotion regulation strategies which include situation selection, situation modification, attentional deployment, cognitive change and response modulation (Gross, 1998a). According to different circulation properties of emotion, these five emotion regulation strategies can be divided into two aspects, which are Antecedent-Focused Emotion Regulation and Response-Focused Emotion Regulation (Gross & Thompson, 2007). Antecedent-Focused Emotion Regulation happens before emotion response. It means the operation to emotion system input which processes and adjusts the reasons of emotion, including situation selection, situation modification, attentional deployment and cognitive change. And among them, the most important and typical strategy is cognitive change. Response-focused emotion regulation means that when emotion happened, people adjust their emotion response tendency, mainly in the aspects of expression and physiological reaction. Besides, only response modulation belongs to Response-Focused Emotion Regulation.

Many previous studies have shown that compares to response modulation, cognitive change is not only an effective way to reduce negative emotion experience, it can also weaken the activation of physiological reaction, sympathetic nervous system and amygdaloidal nucleus. Meanwhile this process will not influence cognitive activity. Therefore, cognitive change is regarded as the most effective emotion regulation strategy (Gross, 2008). Some study about individual difference of emotion regulation strategy showed the relationship between accustoming of cognitive change and positive social-psychological results. For example, people tending to use cognitive change keep better interpersonal relationships with others and a higher level of happiness than ones tending to use response modulation. There is negative correlation between accustoming of cognitive change and Potentially dangerous behaviors (e.g. smoking and Alcohol caused fights) (Magar, Phillips, Hosie, 2008). For this reason, the difference between cognitive change and response modulation is regarded as steady and systematic (Gross & John, 2003). In the meantime, the preference of emotion regulation strategies reflects relatively steady and quality-similar individual difference.

Some studies about personality traits and emotion regulation strategies shows remarkably negative correlation between neuroticism and cognitive change (-.20) and slightly positive correlation between neuroticism and response modulation (.03), meanwhile, there is a remarkable negative correlation between extraversion and response modulation (-.41) and a remarkable positive correlation between extraversion and cognitive change (.11). Weiting and Diener found that people with low level of neuroticism didn't repair negative emotions so much as ones with high level of neuroticism, while compares to people with low level of extraversion, ones with high level of extraversion tend to have more positive emotion (Ng & Diener, 2009). Huang and Guo (2003) found that extraversion and neuroticism affect aversive response and its Emotional component change in processes of regulation in a complex way. DeYoung's research (DeYoung et al., 2010) of neuroscience found that there is a negative correlation between neuroticism and an area in PFC, which was thought to have an important connection with emotion regulation. Therefore, there is an internal relationship between personality traits and emotion regulation strategies. And there ought to be individual difference of emotion regulation strategies for people with different levels of personality traits. Some researches focused on this

question but most of all with a perspective of western culture. Although “big five” was thought to be the best scheme of western personality structure and universal to cross cultural borders, the fact shows a different way (eg. Wang, Cui, & Zhou, 2005; Caprara et al., 2001). For this reason, it is essential to make a thorough inquiry of the relationship between personality traits and emotion regulation strategies.

## 2. METHOD

### 2.1 Measurement

#### 2.1.1 Personality

We used QZPS-SF to assess their personality traits, which is the short form of QZPS (Wang, Cui, & Zhou, 2005, Zhang et al., 2007). QZPS-SF includes 82 items measuring seven factors of Chinese personality: Extraversion, Kindness, Behavior styles, Talents, Emotionality, Human relations and Ways of life. Internal consistency coefficients for each subscale range from 0.79 to 0.84. Each item was rated using a Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree).

#### 2.1.2 Emotion regulation strategy

Emotion Regulation Questionnaire (ERO) developed by Gross and John (2003), which contains 10 items and was divided to Cognitive Change Subscale and Response Modulation Subscale, was used to assess Emotion regulation strategies of participants.

### 2.2 Participants

There are 426 undergraduates consisted of 170 males and 256 males ranging from 17 to 22 years old filled out Chinese version ERO and QZPS-SF.

## 3. RESULTS

### 3.1 Reliability and validity of Chinese version ERO

In order to inspect the applicability among Chinese university students, we invited 3 graduated students in psychology translated ERO into Chinese, then invited a graduated student in English translated it back in English. We contrasted their outcomes for several times and finally confirmed the Chinese version ERO we are going to use.

During the post-experiment, 256 undergraduates completed the 10-item Chinese version ERO, including 101 males and 155 females, aging from 17 to 22. Exploratory factor analyses were conducted with the 10 facets of Chinese version ERO (Table 1). Results from the scree test and the variances explained by each factor suggested a two-factor solution. The variances explains by this two factors were 52.0%. Cronbach alpha coefficient of cognitive change subscale was .79 and response modulation .71. Generally, Chinese version ERO showed total agreement with the original one in structure. Reliability and validity indexes were great enough to measure out Chinese college students’ emotion regulation strategies.

Table 1. Exploratory factor analyses results of Chinese version ERO (n=256)

Item	Factor loadings	Communalit y	Item	Factor loadings	Communality
1	.59	.34	10	.82	.68
3	.65	.45	2	.78	.61
5	.54	.29	4	.62	.39
7	.80	.63	6	.82	.68
8	.80.	.65	9	.70	.48

### 3.2 Correlations between Personality trait and Emotion regulation strategy

Table 2 shows the correlations between 7 dimensions of Chinese personalities and 2 emotion regulation strategies after controlling demographic variables like gender and age. From the results, there are significant correlations between cognitive change and all 7 dimensions, while response modulation only significantly correlated with Extraversion, Emotionality and Kindness.

### 3.3 Prediction effect of personality traits to emotion regulation strategies

On the basis of Correlations analyses, we performed stepwise multiple regression analysis with cognitive change and response modulation modeled as a linear function of personality traits(table 3).

Table 2. Correlations between Seven-factor Chinese Personality and emotion regulation strategies (n=426)

	Extraversion	Emotionalit y	Human relations	Kindnes s	Behavior styles	Talent s	Ways of life
cognitive change	.20**	.14**	.33**	.32**	.17**	.27**	.29**
response modulation	-.18**	.30**	.09	-.17**	-.04	.03	-.04

\*\* p<.01

Table 3. Regression analysis results of personality traits to emotion regulation strategies (n=426)

Dependent Variable	personality dimensions came into regression equation	$\beta$	R <sup>2</sup>	$\Delta R^2$	t	P
cognitive change	1. Human relations	.162	.123	.123	2.784	.006
	2. Ways of life	.216	.160	.037	4.079	.000
	3. Kindness	.186	.187	.027	3.540	.000
response modulation	1. Emotionality	.336	.088	.088	7.128	.000
	2. Kindness	-.242	.154	.066	-5.107	.000
	3. Extraversion	-.115	.166	.013	-2.468	.014

### 3.4 Path analyze of personality traits and emotion regulation strategies

AMOS was used to perform path analyze to personality traits and emotion regulation strategies for exploring the path relationship between them. Revised models fitting were all good enough (Figure 1). ( $\chi^2=10.06$ ,  $df=5$ ,  $\chi^2/df=2.12$ ; GFI=0.99, NFI=0.98, TLI=0.96, RFI=0.92, IFI=0.99, CFI=0.99, RMSEA=0.04)

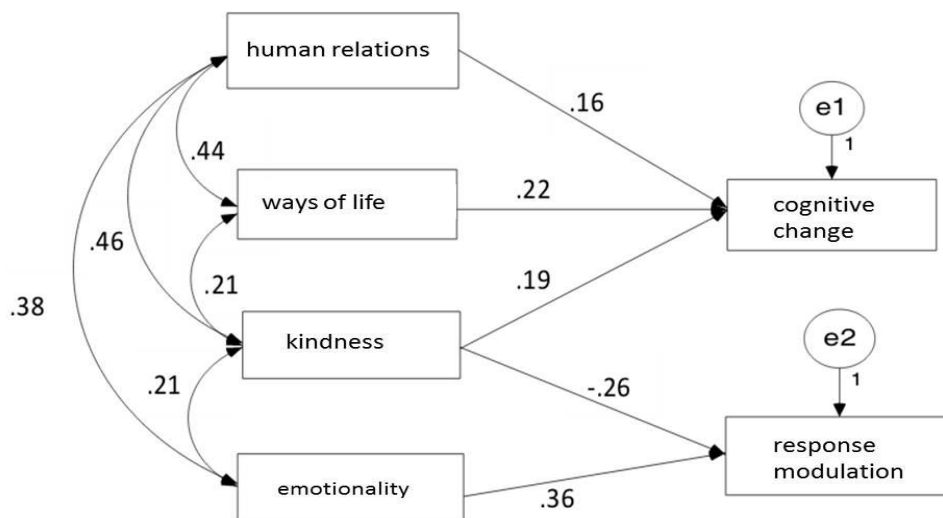


Figure 1. Relationship model between personality traits and emotion regulation strategies

## 4. DISCUSSION

Above all, one of emotion regulation strategies cognitive change can be well predicted by some dimensions of Chinese seven personality traits-human relations, ways of life and kindness. Meanwhile, emotionality and kindness were good predictors of response modulation.

Human relations dimension reflects some traits people showing in interpersonal interaction like gentleness and enthusiasm, which express our attitudes as individuals towards interpersonal interaction (Wang & Cui, 2004; Zhang et al., 2007). Human relations had significantly positive correlation with forgiveness (Zhang & Luo, 2011). Forgiveness refers to fading away of ones' negative cognizes, emotions and behaviors upon aggressors after they suffered injustice. What's more, it involves the processes of positive cognizes, emotions and behaviors arising, which means motivation change processes that bring empathies upon aggressors to sufferers (Luo & Huang, 2004). Only if this change happens, which inevitably demands people to re-understand and re-judge the emotional events they encountered then generate empathy with aggressors, can they forgive internally, thereby it is conducive to their mental health. Furthermore, cognitive change drives people to understand negative emotional events that make them frustrated, angry and disgusted

in a positive way or rationalize those events. Therefore, those who got higher marks in human relations dimension may possibly use the emotion regulation strategy.

Ways of life represent individuals' attitude towards life and career. Ones got higher marks always have clear targets, firm goals and lofty ideals. They are also full of confidence in the future and commitment to excellence. On the contrary, ones got lower marks tend to take things as they are and drift them along. They make no attempt to make progress and easily hold back, so that they stay mediocre. This dimension directly reflects Individual motivation level, which Shows significant correlation with Achievement motivation of personality dimensions, in the structure of Chinese personality (Wang & Cui, 2004; Zhang et al., 2007). Individuals with higher level of Achievement motivation take clear purpose on excelling others and themselves. They take more proactive behaviors especially when running into a stone wall. And they are used to make cognitive change as is one kind of proactive emotion regulation strategies.

Emotionality manifests Individual emotional stability characteristic (Wang & Cui, 2004; Zhang et al., 2007). When they get higher scores on this dimension, they are thought to be more stable and peaceful and able to control their own emotions. So they are more likely to choose response modulation as their motion regulation strategies.

What's special in our study is that kindness can positively predict cognitive change and at the same time negatively predict response modulation. And so-called "good man" in Chinese culture can be described by kindness. Those scored higher are sincere, friendly, Considerate and sympathetic. Someone got lower score might be hypocritical, cheating, self-interested and unscrupulous (Wang & Cui, 2004; Zhang et al., 2007). Therefore, people with kindness are more inclined to forgive others and care about others' feelings and think on others' positions (Zhang & Luo, 2011). They are sincere and friendly to people and barely hide their true feelings. So they prefer cognitive change than response modulation facing to emotion problem.

Some research Findings shows that there is close relations between emotion regulation strategies and mental health (Gross, 1998b; Gross & Levenson, 1993, Gross, 1998a). Preference of response modulation may bring low Positive emotional experience and less positive emotional expressions. And it positively correlates with low life satisfaction and happiness and high level of depression. On the other hand, tending to cognitive change may bring higher Positive emotional experience and more positive emotional expressions. And it positively correlates with high life satisfaction and happiness and low level of depression. On the basis of studies about personality traits and mental health, Wang and Cui (2007) raised that there are three different kinds of correlations between Chinese personality traits and mental health. It means except for human relations dimension which has no significant relationship with mental health, extraversion, kindness and ways of life are promoters to mental health, meantime, emotionality and behavior styles are suppressors and Talents "promoter-suppressor". Compared to ours, some results have no difference, like that kindness and ways of life significantly positively correlate with cognitive change, and they are promoters to mental health. Emotionality has significantly positive correlation with response modulation and it is a suppressor to mental health. Some results are also different. For example, we found that there is significantly positive correlation between human relations and cognitive change, and human relations promote mental health. But in the study of Wang and Cui, there is no significant correlation between them. Moreover, we didn't find out extraversion as a promoter, Behavior styles as a suppressor and talents as a "promoter-suppressor" These differences possibly came from the singleness and occasionality of their results which are the basics of the relation model between personality traits and mental health they raised (Zhang, Wu & Pan, 2013). In addition, when Wang and Cui were measuring mental health they used some negative indexes and no positive ones. It was a real regret. Broadly speaking, we need accumulate more findings of the relation model between personality traits and mental health to obtain more steady and consistent conclusions.

The differences between Chinese and western personality structure are not only in names and quantities, but in a system level (Wang & Cui, 2008). We can't compare our results with western relative studies directly. But they reach an agreement in the conclusion that personality traits can predict emotion regulation strategies effectively. It confirmed our hypothesis that there is a close relation between them.

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