

# Research on Youth Values in the Guangdong-Hong Kong-Macao Greater Bay Area in the New Era

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## ABSTRACT

The purpose of this paper is to construct the Youth Value Scale of the Guangdong-Hong Kong-Macao Greater Bay Area, and investigate and compare the current situation of youth values in the Guangdong-Hong Kong-Macao Greater Bay Area with the designed scale. The Youth Value Scale of the Guangdong-Hong Kong-Macao Greater Bay Area was constructed by identifying the main factors that explain the youth values based on the characteristics of Lingnan culture. Exploratory factor analysis and confirmatory factor analysis were carried out for the scale. Seven dimensions of the youth values: "National Identity", "Family Happiness", "Enjoyment of Happiness", "Social Harmony", "Pioneering and Innovation", "Forge Ahead" and "Wealth and Status" were identified. Based on these factors, this paper compares the similarities and differences in the ranking of youth values in Guangdong, Hong Kong and Macao thoroughly. Practically, This paper may fill in the gaps in the study of youth values in the Guangdong-Hong Kong-Macao Greater Bay Area, providing a good example for the study of regional values. It can also provide decision-making grounds for guiding youth in the Guangdong-Hong Kong-Macao Greater Bay Area to establish correct values.

**Keywords:** *Guangdong-Hong Kong-Macao Greater Bay Area, youth; values, scale development, horizontal comparison.*

## 1. INTRODUCTION

On February 18, 2019, the CPC Central Committee and the State Council issued the outline of the development plan for the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). The Guangdong-Hong Kong-Macao Greater Bay Area (GBA) becomes one of the regions with the highest degree of openness and the strongest economic vitality in China, and the development of GBA is a major national development strategy. However, the Guangdong-Hong Kong-Macao Greater Bay Area faces the challenge of synergistic development of the three areas due to the historical, institutional, and legal differences since modern times. One of the biggest obstacles is the differences in values and lifestyles, especially among young people. Therefore, it is necessary to have an in-depth understanding of the current situation of values held by the youth in the Guangdong-Hong Kong-Macao Greater Bay Area because young people are the future leaders and main builders of GBA, and their personal values

will influence their behavior and determine the development of the region.

Although there have been some domestic studies on the theoretical aspects of the values of Guangdong-Hong Kong-Macao Greater Bay Area, there is a lack of empirical studies and comparative analysis. In addition, although foreign scholars have developed many well-established value scales, these scales are not fully applicable to measuring Chinese values. As for Chinese values scales developed by domestic scholars, the main deficiency is that they fail to fully consider the regional characteristics of the values of people in a certain region. Regarding the study of youth values in the Guangdong-Hong Kong-Macao Greater Bay Area, the existing studies lack a unified values scale with regional characteristics, which makes it impossible to fully compare the youth values in Guangdong, Hong Kong and Macao horizontally and show their specific differences.

## 2. LITERATURE REVIEW

### 2.1. *Research status of Chinese youth values*

In theoretical study, many scholars have analyzed the transformation and changes of Chinese youth values. For example, Wei Lili (2016) used the theory of intergenerational value transformation to compare the values of the post-90 s and post-80 s [1]; Yang Jing and Kou Qingjie (2018) studied the transformation and evolution of youth values in the past 40 years of reform and opening up [2]. Many other scholars have studied the cultivation of youth values. For example, Yu Junru and Dong Xiang (2010) analyzed the realistic background, basic content and cultivation mechanism of shaping youth core values [3]; Ren Peng (2018) studied the current characteristics, evolution logic and consolidation strategies of mainstream values of Chinese youth [4].

In the empirical study, the early studies mainly adopted the mature foreign scales. Typical studies include: Huang Xiting et al. (1989) used Rokeach's RVS [5] to investigate values of young students in five cities in China [6]; Shen Panyan et al. (2017) used Rokeach's RVS to investigate the values of teenagers in 2015, and compared the results with those in 1987, 1998 and 2004 [7]. With more and more empirical studies, many localization scales of Chinese youth values have been developed by domestic scholars, such as Wen Ping et al. (2005, 2008) [8,9], Xu Huachun et al. (2008) [10] and Wang Xiaofeng et al. (2018) [11].

### 2.2. *A comparative study on the values of youth in Hong Kong, Macao and the mainland*

While there have been a few studies on the youth values in Hong Kong and Macao, less studies have been conducted on comparison of the youth values of the two areas with those of the mainland. Some scholars have theoretically explored the values of Hong Kong and Macao youth. Yang Hongliu and Zhong Minghua (2017) discussed the political values of Hong Kong youth's national identity [12]. Chen Liwei (2017) studied the correspondence between core values of Hong Kong and socialist core values, and pointed out that socialist core values basically covered the core values of Hong Kong [13].

In the empirical research, some scholars have adopted the mature foreign values scale. For example, Yang Xiong (1996) used Rokeach's RVS to investigate the life values of Macao teenagers, and compared the results with those of Hong Kong and Shanghai teenagers [14]. Xu Yan and Wang Lise (2001) used Allport's SOV [15] to compare the values of college students in Beijing and Hong Kong [16]. In addition, some scholars have adopted the self-made values questionnaire. For example, Zhang Wei et al. (2008)

compiled a questionnaire on youth values to investigate the characteristics and influencing factors of youth values in Guangzhou and Macao [17]. Tu Minxia et al. (2016) constructed a comprehensive concept of values composed of national identity, career outlook, outlook on life and other dimensions, and made a questionnaire survey on the values of young people in Guangzhou, Hong Kong and Macao [18]. It was found that the values of young people in Guangzhou, Hong Kong and Macao had a basic trend of coexistence of convergence and separation. However, one of the shortages of their study is that they investigated the youth values in the three cities-Guangzhou, Hong Kong and Macao, rather than The Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Another shortage is that they used simple questionnaire for survey, rather than a unified youth values scale.

The literature shows that scholars at home and abroad have made abundant achievements in the research of values. Foreign scholars have developed mature value scales such as SOV [15], RVS [5] and SVS [19], but these scales are not completely suitable for measuring Chinese values. Domestic scholars such as Zhang Mengxia (2005) [20] and Jin Shenghua (2009) [21] developed the Chinese Values Scale, while Xu Huachun (2008) [10] and Wang Xiaofeng (2018) [11] developed the Chinese Youth Values Scale. The main limitations of these localized Chinese value scales are that they fail to fully consider the regional characteristics of the values of people in a certain region, and most of them use convenient samples, such as only school students in the research process.

This paper attempts to construct the GBA youth values scale by combining qualitative and quantitative methods based on the Lingnan culture shared by GBA, and analyzes and compares the similarities and differences of the youth values in Guangdong, Hong Kong and Macao. This study attempts to provide decision-making grounds for cultivating correct values of the youth in Guangdong-Hong Kong-Macao Greater Bay Area.

## 3. CONSTRUCTION AND VERIFICATION OF YOUTH VALUES SCALE OF THE GUANGDONG-HONG KONG-MACAO GREATER BAY AREA

### 3.1. *The initial item database of the scale*

In this paper, the steps of constructing the initial item database of Greater Bay Area youth values were as follows: (1) Through extensive literature reading, some classic values scales at home and abroad were translated and sorted out. Foreign values scales mainly refer to Rokeach's RVS [5] and Schwartz's SVS [22]. The domestic values scales mainly refer to the Chinese

values scale developed by Jin Shenghua et al. (2009) [21], Yu Guangtao et al. (2007) [23], and Pan Yu et al. (2014) [24], and the Chinese youth values scale developed by Wen Ping et al. (2005, 2008) [8,9], Xu Huachun et al. (2008) [10] and Wang Xiaofeng et al. (2018) [11]. In the process of scale design, considering the characteristics of Lingnan culture, such as competitive spirit, inclusive mind, innovative ability, seeking truth and being pragmatic [25], 55 keywords about values conforming to Lingnan culture were summarized and refined. (2) On-line survey about the recognition degree of 55 keywords was conducted among young college students in Guangdong province. The survey also contained an open-end question, requiring that the subjects listed at least five most important keywords of values they believe in. According to the results of descriptive statistical analysis, these 55 keywords were well recognized by the subjects. Then, the content mining software was used to analyze the high-frequency keywords of the values listed in the open-end question in the survey. The top 30 high-frequency keywords of values were identified. A total of 70 keywords were selected (some similar keywords were merged), presenting a preliminary picture of the values of young people in Guangdong. In order to better describe values, these words were extended into value-oriented declarative sentences, thus forming specific value items. The initial value item database of GBA youth was constructed, which contained 70 value items. The items were numbered randomly, and the numbers remained unchanged in the following analysis. The scale was designed according to a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

### ***3.2. Pre-test and further simplification of the item database***

#### ***3.2.1. Small-scale pretest***

In order to revise and simplify the initial items, a small-scale pre-test was carried out. Based on the obtained 70 items, a questionnaire survey (trial survey) of Guangdong youth's values was designed and published on Wenjuanxing, and college students from Shenzhen, Guangdong province were invited to fill in the questionnaire with awards. A total of 938 questionnaires were collected, among which 404 valid questionnaires were retained and 346 invalid answers were excluded. Among the participants, there were 178 males, accounting for 44.06%, and 226 females, accounting for 55.94%, aged between 17 and 23.

#### ***3.2.2. Item analysis***

In order to test the appropriateness and discrimination of values items, extreme group comparison was used in item analysis [26]. In the pre-

test samples, 27% of the samples (about 109 samples in this paper) from the top-down and another 27% from the bottom-up were selected, respectively, as the high and low extreme groups, according to the order of total ranking scores for the items. Then the independent sample T test was carried out on the mean value of the items in the high and low extreme groups. If the T value reached the significant level ( $p < 0.05$ ), the items had good discrimination, otherwise they could be eliminated. According to the item analysis results, 1 item was eliminated and 69 items were reserved.

#### ***3.2.3. Preliminary exploratory factor analysis***

The exploratory factor analysis on 69 items was carried out. Before factor analysis, Cronbach's  $\alpha$  of the initial scale was calculated, and its value was 0.959, indicating that the overall reliability of the scale was extremely high. Furthermore, KMO value was 0.950 ( $> 0.7$ ), Bartlett spherical test value was 16881.150 ( $P < 0.001$ ), satisfying the prerequisite of factor analysis.

Principal component analysis was selected as the extraction method of factors with the adoption of varimax rotation. To ensure the unidimension of items, the items that meet any one of the following conditions were deleted: (1) the commonality was less than 0.4; (2) the absolute value of factor loading was less than 0.5; (3) the load was greater than 0.4 on multiple factors. After many times of factor analysis, 35 items were retained and 34 items were deleted. According to the preliminary factor analysis results, a relatively clear factor structure with seven dimensions was obtained, with the cumulative explanatory variance variation of 62.477%. Therefore, the revised formal scale contained 35 items. Based on the feedback from some interviewees, two doctoral supervisors and two experts in social psychology were invited to review the formal scale, and the language expressions of some items were modified, which further improved the clarity and accuracy of the items.

### ***3.3. Structural analysis of youth values scale of GBA***

#### ***3.3.1. Questionnaire design***

Based on the 35 values items obtained from the pretest, a formal questionnaire on the values of young people in Guangdong, Hong Kong and Macao was compiled. According to the research needs, and taking into account the linguistic and cultural differences between Guangdong, Hong Kong and Macao, two versions of the questionnaire were designed, namely, "Guangdong Youth Values Questionnaire (Formal Survey)" and "Hong Kong and Macao Youth Values Questionnaire".

**3.3.2. Data collection**

The data collection lasted for half a year. In data collection, various means and incentives were adopted. The survey in Guangdong mainly used the paid sample service provided by Wenjuanxing(www.wjx.cn) to conduct online questionnaire survey. In two months, a total of 1314 questionnaires were collected, among which 344 invalid questionnaires were automatically rejected by the Wenjuanxing System, and 69 unqualified questionnaires were manually rejected, and 901 valid questionnaires were retained. Of all the subjects, there were 400 males, accounting for 44.40%, and 501 females, accounting for 55.60%, with an average age of 22.75 years.

Affected by the COVID-19 pandemic, the survey in Hong Kong and Macau was carried out with difficulty and long time. It took half a year to obtain adequate questionnaires for the survey. The questionnaire was published on SurveyMonkey, a popular survey website in Hong Kong and Macao. Hong Kong collected 1,260 questionnaires, among which 756 invalid questionnaires were eliminated and 504 valid questionnaires were retained; A total of 524 questionnaires were collected in Macao, among which 35 invalid questionnaires were excluded, and 489 valid questionnaires were retained. Of the subjects of Hong Kong, there were 280 males, accounting for 55.60%, and 224 females, accounting for 44.40%, with an average age of 24.93 years; In Macao, there were 298 males, accounting for 60.90%, and 191 females, accounting for 39.10%, with an average age of 22.42 years.

**3.3.3. Exploratory factor analysis**

In this paper, the valid questionnaires from Guangdong, Hong Kong and Macao were randomly divided into two approximate equal groups: 451 questionnaires from Guangdong, 254 from Hong Kong and 245 from Macao were selected and put together as one group, totally 950 questionnaires. One group of the samples was used for exploratory factor analysis to explore the internal structure of the values of young people in Guangdong, Hong Kong and Macao. The other group of samples was used in the subsequent confirmatory factor analysis.

Before factor analysis, the KMO and Bartlett spherical test values of samples were calculated. The KMO value was 0.933, greater than 0.7, and Bartlett spherical test value was 18727.113, reaching the significance level of  $P < 0.001$ , which fully indicated that the data were very suitable for factor analysis. According to the results of pre-test, the number of factors was fixed at 7. The results of exploratory factor analysis are shown in Table 1, including 30 items of 7 factors. According to the meaning of the items measured in the factors, the factors were named as National identity, Family happiness, Enjoyment of happiness, Social harmony, Pioneering and innovation, Forge ahead and Wealth and status. The variance explained by seven factors was 65.971%. The factor loadings were greater than 0.5, and there was no cross-factor, showing that the factor structure of the scale was good.

**Table 1.** Factor Analysis Results of Youth Values in Guangdong-Hong Kong-Macao Greater Bay Area

Number	Items	Factor Loading after Rotation						
		Factor 1 National Identity	Factor 2 Family Happine ss	Factor 3 Enjoyment of Happiness	Factor 4 Social Harmony	Factor 5 Pioneering and Innovation	Factor 6 Forge Ahead	Factor 7 Wealth and status
Q32	As a Chinese, I am willing to wave the red flag/wear the national emblem/sing the national anthem	0.919	0.155	-0.076	0.104	0.090	0.118	0.086
Q56	I think the national flag/national emblem/national anthem can represent my identity	0.909	0.148	-0.041	0.077	0.074	0.125	0.121
Q3	I feel cordial to the Five-Starred Red Flag and the March of the Volunteers	0.905	0.166	-0.039	0.052	0.094	0.14	0.077
Q39	When someone criticizes China, I feel insulted	0.882	0.133	-0.037	0.078	0.099	0.132	0.137
Q52	I am a descendant of the dragon and a descendant of the Chinese people	0.880	0.148	-0.050	0.159	0.059	0.115	0.132

Q2	I hope that the country will be prosperous and the people will live and work in peace and contentment	0.773	0.216	0.016	0.268	0.013	0.064	0.066
Q7	In any case, I should spend as much time with my family as possible	0.172	0.722	0.102	0.073	0.195	0.148	0.004
Q70	I think the time with my family is the happiest time	0.313	0.702	0.017	0.239	0.121	0.200	0.083
Q1	The most fundamental happiness in life lies in family happiness	0.300	0.702	0.060	0.200	0.072	0.146	0.195
Q43	Family harmony and happiness are the most important goals in life	0.176	0.681	0.205	0.166	0	0.161	0.103
Q62	It's important for me to enjoy life	0.037	0.019	0.740	0.294	0.056	0.086	0.024
Q18	To enjoy the present happiness is life	-0.019	0.175	0.727	-0.098	0.069	0.020	0.063
Q47	One should pursue happiness and avoid suffering	-0.127	0.207	0.664	0.119	0.070	-0.102	0.203
Q30	I hate the feeling of being controlled by others	-0.095	-0.113	0.641	-0.057	0.061	0.195	0.058
Q16	It is important to make yourself happy, so there is no need to think too much	0.002	0.145	0.583	0.332	0.178	-0.152	0.149
Q34	It is very important for man and nature to coexist harmoniously	0.293	0.269	0.113	0.687	0.083	0.181	0.002
Q6	It is important to protect the natural environment from pollution or destruction	0.203	0.156	0.085	0.681	-0.011	0.323	-0.041
Q4	Everyone should be treated fairly, even those they are unacquainted	0.200	0.253	0.192	0.662	0.151	0.137	-0.072
Q61	Compared with the people around me, I usually try new products and technologies first	0.174	0.108	0.066	-0.020	0.780	-0.057	0.214
Q55	When new products appear, I am very happy to try and use them	0.146	0.096	0.043	0.267	0.717	0.077	0.161
Q17	I like taking risks and dare to be the first mover	-0.033	0.073	0.178	-0.159	0.710	0.306	0.062
Q42	I am full of curiosity about the unknown field	0.041	0.108	0.176	0.333	0.582	0.328	-0.045
Q51	We must strive for progress and constantly pursue higher goals	0.306	0.237	0.023	0.061	-0.008	0.696	0.049
Q69	You can't be content with the status quo, you have to make yourself better	0.136	0.089	-0.038	0.362	0.176	0.630	0.233
Q23	Dare to compete and try to do better than others	0.142	0.207	0.042	0.166	0.229	0.601	0.273
Q48	When I encounter difficulties, I often try new solutions	0.154	0.252	0.103	0.221	0.274	0.540	0.045
Q25	Money makes people's lives happier	0.137	0.064	0.079	0.245	0.045	0.061	0.786
Q41	People live to earn more wealth	0.21	0.085	0.269	-0.266	0.051	0.101	0.640
Q8	A poor life cannot be regarded as a successful life	0.081	0.147	0.036	-0.084	0.067	0.051	0.628

Q24	People of high status are enviable	0.089	-0.043	0.14	-0.006	0.284	0.192	0.594
Initial eigenvalue		8.930	3.568	2.148	1.774	1.311	1.144	0.916
Explanatory variance %		17.898	8.799	8.584	8.022	7.951	7.421	7.295
Cumulative explanatory variance %		17.898	26.697	35.281	43.303	51.255	58.676	65.971
Internal consistency		0.903	0.820	0.747	0.787	0.754	0.758	0.684

3.3.4. Confirmatory factor analysis

We used the other group of the samples for confirmatory factor analysis, and tested the fitting degree between the values model obtained by exploratory factor analysis, This group of the samples included 944 questionnaires, of which 450 was from Guangdong, 250 was from Hong Kong and 244 was from Macau.

(1) Model fitting and evaluation

AMOS software was used for the confirmatory factor analysis. Bootstrap ML method was used for the model parameter estimation, and the Bootstrap sample number was set to 1000. The initial fitting results of confirmatory factor analysis are shown in Table 2. It can

Table 2. Confirmatory Factor Analysis Fitting Index Table

Category	Absolute index			Relative index			Parsimony index		
	RMSEA	GFI	AGFI	TLI	NFI	CFI	$\chi^2/df$	PGFI	PNFI
Recommended value	<0.08	>0.90	>0.90	>0.90	>0.90	>0.90	<3	>0.50	>0.50
Initial value	0.061	0.887	0.863	0.900	0.890	0.912	4.498	0.733	0.786
Corrected value	0.041	0.946	0.924	0.957	0.948	0.967	2.604	0.668	0.717

(2) Analysis of reliability and validity

The reliability of the scale was tested by SPSS, and Cronbach  $\alpha$  value was 0.917, greater than 0.7. Checking the results of confirmatory factor analysis, the composition reliability of the seven value dimensions was greater than 0.6, and five of them were greater than 0.7. All these indicate that the scale has good reliability.

Validity mainly includes content validity and structure validity. Content validity is a subjective index, which can be judged by qualitative methods. In this paper, the items mainly originated from the classical literature, and were revised according to the online interview. Experts were invited to examine and approve the items, and small-scale pretest was carried out. Therefore, the compilation process of this scale is relatively standard, which can guarantee the content validity.

The test of structural validity mainly focuses on convergence validity and discriminant validity. The evaluation of convergence validity is mainly based on the standardized factor loading of items and the composition reliability of each factor. According to the results of confirmatory factor analysis, the standardized factor loading of each item was not lower than 0.50, reaching a significant level. At the same time, the

be found that some absolute indexes (GFI, AGFI), relative index (NFI) and parsimony index ( $\chi^2/df$ ) did not meet the recommended values. At the same time, the standardized factor loading of item Q8 was 0.485, lower than recommended value, suggesting that the matching degree between theoretical model and data was not ideal, and the initial structural equation model needed to be revised. Therefore, the item Q8 was deleted, and the model was constantly revised by referring to the path provided by the revised index (MI) and adding some restrictions. After revision, each fitting index of the model was basically reasonable, and the standardized factor loading of each item was 0.500 at minimum and 0.963 at maximum, all significant at the level of  $P < 0.001$ . The 7-factor structure of GBA Youth Values Scale has been verified.

composition reliability of each factor was greater than 0.6, indicating that the scale has good convergence validity. According to the method proposed by Anderson and Gerbing (1988) [27], the discriminant validity was tested. The results show that the chi-square value of the limited model among the seven values dimensions was significantly higher than that of the unlimited model, indicating that the factor structure of the scale had a better discriminant validity.

4. ANALYSIS AND COMPARISON OF THE SIMILARITIES AND DIFFERENCES OF GBA YOUTH VALUES

The two groups of samples for the exploratory factor analysis and confirmatory factor analysis were put together, so as to deeply study the general characteristics and the specific differences of the youth values in the three areas. The sample data contained 1894 questionnaires in total, including 901 of Guangdong, 504 of Hong Kong and 489 of Macao. For the convenience of comparison, the variables such as age, education background and identity were recoded.

In order to examine the overall youth values in GBA and present a profile of youth values in GBA comprehensively, the overall average scores of seven

values dimensions were calculated by using the total sample data. At the same time, the average score of each

values dimension was calculated based on demographic variables, such as gender and age, as shown in Table 3.

**Table 3.** Overall Mean of Youth Values in GBA

Values Dimensions	Overall Mean N=1894	Gender		Age			Education Background			Identity	
		Male N=978	Female N=916	≥20 N=671	21-24 N=583	≤25 N=640	Middle School Student N=255	College Student N=1483	Postgraduate N=156	Students in School N=1190	Incumbency N=704
National identity	3.599 (1.299)	3.498 (1.287)	3.707 (1.305)	3.708 (1.279)	3.799 (1.132)	3.303 (1.408)	2.666 (1.449)	3.789 (1.200)	3.323 (1.254)	3.697 (1.205)	3.434 (1.430)
Family happiness	3.884 (0.746)	3.905 (0.722)	3.861 (0.771)	3.860 (0.748)	3.925 (0.699)	3.871 (0.786)	3.515 (0.953)	3.950 (0.681)	3.851 (0.782)	3.867 (0.727)	3.911 (0.778)
Enjoyment of happiness	3.770 (0.666)	3.783 (0.671)	3.756 (0.662)	3.713 (0.691)	3.791 (0.647)	3.811 (0.654)	3.825 (0.822)	3.761 (0.626)	3.762 (0.754)	3.735 (0.675)	3.829 (0.647)
Social harmony	4.162 (0.700)	4.086 (0.705)	4.243 (0.686)	4.190 (0.705)	4.170 (0.677)	4.125 (0.715)	4.112 (0.821)	4.190 (0.674)	3.972 (0.697)	4.137 (0.705)	4.204 (0.690)
Pioneering and innovation	3.432 (0.744)	3.499 (0.752)	3.361 (0.729)	3.406 (0.749)	3.437 (0.678)	3.455 (0.796)	3.219 (0.870)	3.456 (0.701)	3.556 (0.856)	3.449 (0.719)	3.403 (0.786)
Forge ahead	3.916 (0.654)	3.905 (0.665)	3.929 (0.641)	3.975 (0.633)	3.868 (0.668)	3.899 (0.658)	3.682 (0.809)	3.956 (0.610)	3.926 (0.692)	3.937 (0.641)	3.882 (0.673)
Wealth and status	3.214 (0.734)	3.280 (0.735)	3.142 (0.726)	3.252 (0.741)	3.261 (0.720)	3.130 (0.732)	3.044 (0.919)	3.244 (0.690)	3.200 (0.761)	3.280 (0.731)	3.101 (0.725)

Notes: Standard deviation is in brackets. \*\*\*p<0.001, \*\*p<0.01, \*p<0.05.

**4.1. The mean value and ranking of the overall scores of the youth values in GBA**

According to the overall mean of the 7 dimensions (Table 3), the ranking order of youth values in GBA from most important to less important are Social harmony, Forge ahead, Family happiness, Enjoyment of happiness, National identity, Pioneering and innovation, and Wealth and status. Social harmony comes first, and wealth and status comes last. According to the statistical results of gender, age, education

background and identity, there are subtle differences in the ranking of values among different groups.

**4.2. Ranking and comparison of mean values scores of youth in Guangdong, Hong Kong and Macao**

Table 4 shows the average scores and the rankings of values of youth in Guangdong, Hong Kong and Macao.



**Table 4.** Comparison of the average scores of youth values in Guangdong, Hong Kong and Macao

Value Dimension	Overall Mean (N = 1894)		Youth in Guangdong(N=901)		Youth in Hong Kong(N=504)		Youth in Macao(N=489)	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
National identity	3.599 (1.299)	5	4.515 (0.475)	1	1.946 (1.068)	7	3.617 (0.767)	5
Family Happiness	3.884 (0.746)	3	4.123 (0.573)	4	3.583 (0.907)	4	3.753 (0.700)	2
Enjoyment of Happiness	3.770 (0.666)	4	3.661 (0.618)	5	3.962 (0.651)	2	3.772 (0.721)	1
Social Harmony	4.162 (0.700)	1	4.462 (0.486)	2	4.049 (0.717)	1	3.725 (0.752)	4
Pioneering and Innovation	3.432 (0.744)	6	3.446 (0.678)	6	3.256 (0.798)	5	3.588 (0.766)	6
Forge Ahead	3.916 (0.654)	2	4.148 (0.520)	3	3.669 (0.715)	3	3.744 (0.663)	3
Wealth and status	3.214 (0.734)	7	3.266 (0.658)	7	2.910 (0.832)	6	3.430 (0.655)	7

Notes: Standard deviation is in brackets.

Compared with the overall values rankings of GBA youth, Guangdong youth ranks National identity first, and the order of other dimensions remains the same; Hong Kong youth ranks Social harmony first, and Enjoyment of happiness ahead of Forge ahead, and National identity the last, and the order of other dimensions has no change; The order of first four values of Macao youth is reversed (Enjoyment of happiness ranks first), while the order of the last three have not changed.

Compared the overall value rankings with the rankings given by Guangdong youth, the largest difference is National identify. Guangdong youth ranked National identity first, while National identify list 5th in the overall value ranking. With the strengthening of China's comprehensive national power and its international status, Chinese people are living in peace and prosperity, and their lives are getting better. Thus, Guangdong youths have a high level of national identity and feel proud of the achievements of Guangdong and the country. In the ranking of Hong Kong youth's values, Social harmony comes first, Enjoying happiness comes second, and National identity comes last, with the lowest average score. Hong Kong youths place high importance in Social harmony because in recent years, Hong Kong has experienced social unrest, and the situation continues to be volatile, jeopardizing the economic and social development of Hong Kong. Therefore, people are longing for social harmony and stability. It is also understandable that the National identity is at the bottom by Hong Kong youth because of the erosion and infiltration of Western-style liberal democracy and other mainstream Western values, and the political, economic, social and cultural differences between the Mainland and Hong Kong, as well as the malicious portrayal of the

negative image of the Chinese Mainland by some media. Some Hong Kong youths prefer to belonging to the "Hong Kong people" identity. In the ranking of Macao youth's values, Enjoying happiness comes first and Family happiness comes second. Although National identity comes 5th but with a high average score of 3.6 compared with 1.9 of Hong Kong youth value. Despite being ruled by Portugal for more than 400 years, the traditional Chinese cultural philosophy has still been well preserved. Macao people are relaxed and laid-back, and enjoy the pursuit of a simple and happy life with a gentle nature. Furthermore, in the past 20 years since its return to the motherland, Macao has enjoyed economic prosperity and stability, and the standard of living of its residents has improved significantly. Macao youths also have received good education on Chinese history and patriotism since childhood, having a high sense of national belonging.

In order to show the values profile of young people in Guangdong, Hong Kong and Macao more intuitively, a radar chart is drawn according to the mean values of each dimension, as shown in Figure 1. On the whole, young people in GBA give a higher average score for Social harmony, Forge ahead, Family happiness and Enjoyment of happiness, but a lower average score for Pioneering and innovation and Wealth and status. Although the scores for National identity are as high as 3.5 points or more, the differences are obvious, with Guangdong the highest, Macao the second and Hong Kong the lowest.



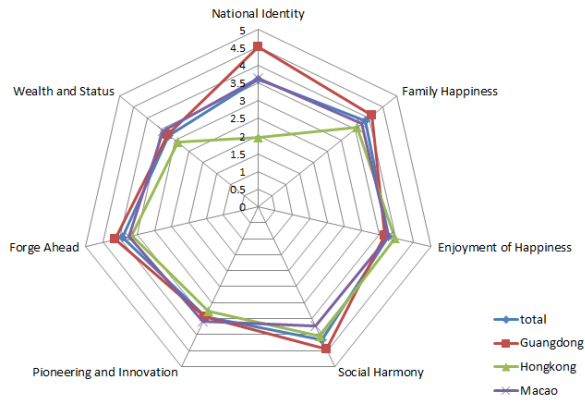


Figure 1 Radar Chart of Youth Values in GBA

## 5. RESEARCH ANALYSIS AND DISCUSSION

### 5.1. The structure of youth values scale in GBA

In this paper, the GBA Youth Values Scale was obtained through empirical research, and the seven-factor structure of GBA values was clarified. The seven values proposed in this paper describe the whole picture of GBA youth values, and fully show that GBA youth values not only conform to the commonness of Chinese traditional culture represented by Lingnan culture, but also highlight the unique regional features. They also fully reflect the structural characteristics of GBA youth values system.

### 5.2. COMPARISON OF YOUTH VALUES IN GUANGDONG, HONG KONG AND MACAO

Generally speaking, there is little difference between the average ranking and the overall ranking of youth values in Guangdong, Hong Kong and Macao, which reveals that there are regional similarities in youth values in these areas. Such similarities provide an important ideological foundation for the coordinated development of GBA. Most young people in Guangdong, Hong Kong and Macao attach great importance to Social harmony, Forge ahead, Family happiness and Enjoyment of happiness, but pay little attention to Wealth and status. At the same time, because the young people in Guangdong, Hong Kong and Macao have grown up in different social and historical backgrounds and institutional environments, they have different understandings and views in the fields of economy, politics and life, which are reflected in certain differences in the ranking of values. It can be observed from the rankings of values that Guangdong youth ranks National identity first, with a high degree of national identity, and Social harmony second, concerning about the harmony of society; Young people in Hong Kong rank Social harmony first, valuing social harmony most, enjoying life and cherishing their own

personality development, but they give low rank to National identity. Macao youth ranks Enjoyment of happiness first, paying attention to enjoying life, family happiness and national identity.

It is worth noting that although the average score of National identity is high, there are obvious regional differences, with Guangdong and Macao youths scoring higher and Hong Kong youths scoring the lowest. It shows that the youths of Guangdong and Macao have a higher sense of national belonging, while the youth of Hong Kong has a lower sense of national identity. The empirical survey data of this paper support part of research conclusions of Yang Hongliu, Zhong Minghua (2017) [12], Tu Minxia et al. (2016) [18]. Yang Hongliu and Zhong Minghua (2017) pointed out that in recent years, many political events initiated or participated by a small number of Hong Kong youth have led to the continuous deviation and deterioration of Hong Kong youth's national identity [12]. This theoretical inference is supported by the survey data in this paper, since the overall ranking of National identity of Hong Kong youth is really low. The political and academic circles should explore ways to curb the alienation and extreme trend of Hong Kong youth's political values. By improving the mechanism of "One country, Two systems" and implementing the fundamental principle of "Patriots govern Hong Kong", Hong Kong youth's sense of national honor and national identity will be enhanced, and the formation of GBA's consensus on political values will be promoted. Tu Minxia et al. (2016) pointed out that the vast majority of Hong Kong and Macao youths hold dual identities, but there is a tendency to De-Sinicization identity to a certain extent, and Hong Kong and Macao youths generally have a low degree of identity with only being the Chinese [18]. This study supports Tu Minxia's conclusion (2016) that Hong Kong youth has low sense of the identity with only being the Chinese, but has different results about Macao youth's value of national identity. According to the results of this paper, Macao youth shows higher ranking for national identity than Hong Kong youth does, which is increasingly converging with the value ranking of Guangdong youth. This may be due to various civic education that Macao has been carrying out for many years and the close exchange activities between Macao youth and the youth from mainland cities, which is worth learning from by Hong Kong youth.

## 6. CONCLUSION

### 6.1. Research conclusion

In this paper, based on the review of relevant literature in the field of values, combined with the online interviews of youth from GBA, we built an item database of GBA youth values. The online

questionnaires for the young people from GBA was designed, and seven dimensions of GBA youth values were obtained by exploratory factor analysis, namely, National identity, Family happiness, Forge ahead, Social harmony, Enjoyment of happiness, Wealth and status and Pioneering and innovation. The results show that the value scale has good reliability and validity. Based on the sample data of questionnaire survey, this paper compares the similarities and differences of youth values in Guangdong, Hong Kong and Macao.

### **6.2. Research significance**

(1) Theoretical value. Following the standard scale development process, this paper developed the GBA Youth Values Measurement Scale based on Lingnan culture, which filled the gap in the theoretical research of youth values in GBA. The scale developed in this paper provides a value measurement tool for similar research in the future, and also provides a good example for regional value research.

(2) Application value. This paper makes an in-depth investigation of the youth values of GBA, and comprehensively analyzes the similarities and differences of the youth values of the three areas, providing data support and grounds for policy-making decision and promotion of the coordinated development of GBA.

### **6.3. Research limitations**

This study has some limitations. First of all, due to the impact of the COVID-19 pandemic, it is very difficult to conduct on-the-spot investigation and interview in Hong Kong and Macao, and online investigation can only be used, which may affect the research results. Secondly, this paper reveals the similarities and differences in the values of young people in Guangdong, Hong Kong and Macao. However, due to length limit, there is no further study on how to establish correct values for young people in GBA in the new era. Future research can focus on the similarities and differences of values of young people in GBA, and comprehensively explore the cultivation path for coordinated development of correct values of young people in the new era under the guidance of socialist core values.

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