

A Study on the Forming Process of Chinese Youths' Images of Japan Based on the Nine-in-One Drawing Method - Taking Middle School, High School, and University Students in Harbin as Examples

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Abstract: Utilizing the KJ method, the cognitive elements of images of Japan in the survey results were classified into 24 categories, which were rich and diverse in content. A meticulous analysis, grounded in frequent pattern mining, has unveiled a notable trend: as the academic levels of the students increase, there is a corresponding rise in the support for elements that reflect the current social landscape of modern Japan. Conversely, the support of images associated with “Japan in the past” is observed to be on the wane. Furthermore, middle school students predominantly receive information in a passive manner, whereas high school students, with the burgeoning of their “formal operational thinking”, start to actively seek out information. This proactive approach stands in contrast to the more measured and rational information selection and comprehension exhibited by university students, who demonstrate a sophisticated understanding of the information they encounter.

Keywords: Nine-in-One Drawing Method; Youths; Images of Japan; Forming Process; Cognitive Development Theory

1. INTRODUCTION

1.1 Research Background

The “Japan-China Joint Public Opinion Survey” conducted by the Japanese Press NPO is the largest and longest-running survey related to the perception of Japan. The survey results from 2005 to 2019 reveal a series of changing trends in Chinese people’s image of Japan. From 2005 to 2013, affected by the fluctuation of Sino-Japanese relations, the negative image of the Chinese people on Japan showed an upward trend on the whole, and the sentiment of the Chinese people toward Japan was generally not optimistic during this period. The Japanese media’s extensive coverage of anti-Japanese actions in various parts of China has caused significant repercussions in Japanese society, leading to the so-called “China anti-Japanese theory” gaining popularity in Japan in recent years. This sentiment has also influenced the Japanese people’s image of China. The survey showed that from 2005 to 2014, the proportion of Japanese people with a

negative image of China continued to rise. Although the proportion declined slightly over the next five years, it remained high at around 90 per cent. However, it is worth noting that since 2013, the proportion of Chinese people with a negative image of Japan has decreased year by year, to 52.7% in 2019. This change shows that the Chinese people's image of Japan is improving. In other words, although the "China anti-Japanese theory" has been deeply rooted in Japan, in China, the argument is undergoing a change that is unknown to the Japanese public.

1.2 Literature Review and Research Objectives

Foreign image research occupies an important position in social psychology, which continues the tradition of attitude research. Based on the international action research in the field of social psychology, Kelman (Kelman, 1965) defined image as "the structured image of an object formed in an individual's cognitive system". In addition, in the study of social attitude, image is further deconstructed into four basic elements: cognitive elements, that is, concepts related to object attributes; The evaluation elements involve the evaluation of the merits and demerits of the object; Emotional elements, describing the likes and dislikes of the object; And action elements, which refer to the intention to act on a specific object (Midooka, 1992). This classification provides important theoretical support for our in-depth understanding of the mechanism of image formation.

1.2.1 The Specific Content of the Image on Japan

From the classification of the four elements of image, the existing research mainly combines cognitive and evaluation elements, supplemented by emotion and action elements. This research paradigm mainly focuses on the analysis of Chinese perceptions of the Japanese nation and the Japanese people as a whole. Researchers generally adopt the scale-style questionnaire survey method, by setting adjectives with opposite meanings as scale options, to quantitatively measure the image of survey subjects on Japanese people. Then, by means of factor analysis and other statistical means, we dig deep and analyze the intrinsic characteristics of Chinese people's image of Japan. The subjects covered a wide range of groups, including the general public, university students and Japanese language majors. For example, Jiang (Jiang, 2014) conducted an in-depth discussion on Chinese people's image of Japan and Japanese people through the measurement and analysis of the four elements of image. The

research reveals that the Chinese hold a complex image of Japan that is both “threatening” and “exemplary”. In terms of their image of Japanese people, Chinese people have a more positive view of Japanese women and a more negative view of Japanese men. Jiang (Jiang, 2017) focused on students at different educational stages and found that although the overall image of young Chinese students on Japan is mainly negative, they hold a positive image on Japan in terms of economy, social civilization, education and animation culture. Zhang (Zhang, 2013) conducted a comparative study on Japanese majors and non-Japanese majors, and the results showed that Japanese majors hold a more positive attitude toward Japan than non-majors. Among the studies focusing on emotional factors, the most representative is the research results of Kobayashi (Kobayashi, 2008). Kobayashi (Kobayashi, 2008) conducted a comprehensive analysis of 28 questionnaires published between 1988 and 2007 that asked Chinese people about their feelings toward Japan. Using the diachronic research method, he comprehensively sorted out the evolution of Chinese people's feelings towards Japan and its remarkable characteristics. In particular, Kobayashi (Kobayashi, 2008) noted that since the mid-1990s, Chinese sentiment toward Japan has been “not optimistic”, and predicted that in the future, “the trend is likely to deteriorate further in the medium to long term”. However, the limitation of such studies lies in the diversity of respondents and question design across different questionnaires, which leads to the focus of research mainly on the emotional level, and fails to explore other elements of the images of Japan in depth. The aforementioned research offers an objective lens through which we can comprehend the current state of Chinese people's images of Japan via scale-based questionnaire surveys. Although these images contain negative elements, young Chinese students also identify positive aspects in them, which indicates that the images of Japan are undergoing some form of transformation. However, these studies predominantly depend on scale-type questionnaires, and the images measured are often biased towards abstract concepts and lack discussion on the specific contents of images, which may lead to our incomplete understanding of Chinese images of Japan. In the study conducted by Kenjo and Miura (Kenjo & Mimura, 2010), an open questionnaire survey was adopted to conduct a detailed comparative analysis on the perceptions of Japanese majors, Japanese language learners and non-Japanese language learners among Chinese university students. This study provides us with valuable insights into the specific images of contemporary Chinese university students on Japan. The results show that non-Japanese majors’ images of Japan tend to be closely

related to historical issues such as Anti-Japanese War, while Japanese majors pay more attention to contemporary cultural and social phenomena in Japan. In addition, the mastery of Japanese related knowledge among Japanese majors has shown an upward trend. From the perspective of research methods, this study represents an innovation and breakthrough in the field of Japanese image research. However, from the perspective of the universality of the research objects, the research objects of this paper are mainly concentrated in university students, especially Japanese learners, which limits the universality and applicability of the research conclusions to a certain extent.

1.2.2. The Research Object of Japanese Image

In the academic research on Chinese people's images of Japan, scholars mainly focus on two key groups: the Chinese public and Chinese university students. When studying Chinese people's images of Japan, some studies focus on the differences between different regions (Jiang, 2014), while others provide us with a macro perspective to help us understand the overall status quo of Chinese people's image of Japan by comprehensively analyzing the results of multiple questionnaires (Kobayashi, 2008). When the research object turns to Chinese university students, the research can be further subdivided into two sub-groups: non-Japanese majors and Japanese majors. The research fields of non-Japanese majors include the comparative study between Chinese students and students from other countries (regions), and the comparative analysis between non-Japanese majors and Japanese majors. These studies are helpful to reveal the difference of university students' images of Japan in different educational backgrounds and cultural environments. For Japanese majors, the study covers in-depth research specifically for Japanese majors, as well as research comparing Chinese with Japanese majors in other countries (regions). These studies not only reveal the potential impact of language learning background on university students' image of Japan, but also explore the similarities and differences of Japanese major students' image of Japan under different cultural backgrounds. Through these meticulous comparative studies, we are able to more fully understand the diversity and complexity of different groups' images of Japan. University students are typical representatives of youths, and students majoring in Japanese have a special connection with Japan, so the study of these student groups is helpful for us to understand the state of mind of young people, and has significant social value. However, it is worth noting that the future of Sino-

Japanese relations is not only borne by university students, but also by youths who have not yet entered the university. Jiang (Jiang, 2017) chose middle school students, high school students and university students as the research objects. Although the analysis focused on the characteristics of the images on Japan of the whole group of youths, it did not deeply explore the differences in the images on Japan among different groups of young people. In this study, we selected middle school students, high school students and university students in Harbin city as our research objects. We employed the nine-in-one drawing method to investigate the Chinese youths' images of Japan. The main objectives of this study are as follows: Firstly, to grasp the cognitive elements of Chinese youths' images of Japan comprehensively and objectively; Secondly, to explore similarities and differences in these images of Japan among middle school, high school, and university students, in order to reveal the characteristics of the forming process of the image of students in different stages of youth development.

2. RESEARCH METHOD

2.1 Selection of Research Objects

First of all, when defining young Chinese students, the author first refers to Boulding (Boulding, 1956), who proposed that the basic structure of cognitive subject image is mainly formed in childhood. However, youth, as a key stage, significantly improves the cognitive ability and abstract thinking ability of individuals during this period, which has a decisive impact on the formation of images, which is more significant than childhood. Hagiwara et al. (Hagiwara et al., 2010) further found that adults remember the experiences of youth most deeply, suggesting that the most sensitive experiences of youth have a profound impact on an individual's life (Shibuya et al.). Although there is no consensus on the specific age range of youth, most studies define the age range of 15 to 24 years old as youth, which covers middle school, high school and university students in China. Therefore, this study defines "Chinese youths" as Chinese students in this age group. Secondly, in the field of foreign image research, "opportunities for contact" is a key concept. The research of Robinson-Stuart and Nocon (Robinson - Stuart & Nocon, 1996) shows that the existence of contact opportunities directly affects the formation of people's images of foreign countries. In China, access varies significantly due to geographical differences. Relatively few Chinese have direct contact with foreigners. Therefore, the selection of regional environments with less contact with

Japanese people as research objects will help reveal the true face of the Chinese people's images of Japan and enhance the general significance of the study. In this study, the regional environment with the following characteristics is defined as the area with less contact with Japanese people: first, the number of long-term Japanese residents is limited, and the opportunity to communicate with Japanese people is less; Second, there are fewer Japanese companies and Japanese tourists, and the lack of job opportunities to contact with Japanese people; Third, due to factors such as geographical location and economic foundation, there are fewer opportunities to visit Japan. Harbin, the capital city of China's northernmost province, has these characteristics. To sum up, this study selects middle school students, high school students and university students in Harbin, the representative capital city of Heilongjiang Province, as the research objects.

2.2 Subjects

In this study, a cluster random sampling method was employed to select participants from Harbin: third and fourth-grade students from two middle schools, first and second-year students from two high schools, and sophomore and junior students from three universities. The students conducted questionnaires between December 2020 and January 2021. There was a total of 573 valid subjects, including 165 middle school students, 228 high school students and 180 university students.

2.3 Test Procedure

The research process is as follows: First, the teachers of each class issue informed consent to the students; Then, the questionnaire was issued, and the author explained to the students as follows: "Please follow your real thoughts and draw *What can you think of when talking about Japan* in the box in the order of 1 to 9 in the picture. If you cannot use pictures to express, you can also use words, symbols and graphics to express. It doesn't matter if you can't draw nine, just draw as many as you can think of. Also, next to the symbol, write what you are drawing". Finally, the subjects who agreed to participate in this study were surveyed in class, each subject was not allowed to communicate, the survey time was about 25 minutes, and the questionnaire was collected on the spot after completion.

2.4 Research Tool

The research utilized the nine-in-one drawing method (Moritani, 1989)

as its primary tool. This method was originally used in psychotherapy as a means of non-verbal expression. Due to its characteristic of concretization of abstract things, (Kagami et al., 2009) applied this method to the study of Japanese images. Nakazawa (Nakazawa, 1988) defined image as the “mental image” constructed by people's hearts, emphasizing that image is not empty, but a creative representation of real things based on people's past experiences. Images are malleable and can be synthesized, compared and recombined. Based on this, this study believes that compared with language description, pictures can more intuitively reveal the “mind image” of youths of different ages in Japan, thus providing us with a deeper understanding.

2.5 Statistic Analysis

2.5.1 About Frequent Pattern Mining

Data mining technology is a kind of technology to obtain information and knowledge from massive data. Pattern mining is an important technique in this field, which focuses on the discovery of combinatorial patterns that occur frequently in data sets and have unique characteristics. Frequent pattern mining algorithms can reveal regularities and correlations deep in the data by identifying and extracting portfolios of items that exceed certain frequency thresholds. Initially, the algorithm was mainly applied to shopping basket analysis in the retail field, and through the association rule algorithm, we were able to understand the subtle links between customer purchase behavior, for example, “Customers who buy diapers tend to also buy beer”. In this study, the author plans to use the frequent pattern mining algorithm to deeply analyze the “probability of occurrence of the images of Japan”, and strive to accurately depict the unique characteristics of Japanese image, so as to provide more abundant and accurate insights for related fields.

2.5.2 About Association Rules

In shopping basket analysis, association rules are the basis of frequent pattern mining. The Association Rules proposed by Agrawal et al. (Agrawal et al., 1993) reflect the interdependence and relevance of things. If there is a correlation between two or more things, then we can make a prediction about one of them from some of those things. Based on the above research, suppose that $I = \{I_1, I_2, \dots, I_m\}$ is a collection of different itemsets. Given a transaction database D , where each transaction T is a nonempty subset of I . In this study, the author needs to calculate “itemset

support” based on association rules. support of itemset X support(X) refers to the frequency of occurrence of itemset X in transaction database D, thus describing the importance of X. For itemset X, $X \subseteq I$, $\text{count}(X \subseteq T)$ is assumed to be the number of transactions that contain X in transaction set D, which is one of the class X=25 images of Japan in the present study. There are four categories in transaction set D, which are the number of middle school students, high school students, university students and all respondents respectively. The calculation formula is as follows:

$$\text{support}(X) = \frac{\text{count}(X \subseteq T)}{|D|}$$

3. RESEARCH RESULTS

3.1 Classification of the Images of Japan

The author first entered the pictures and related texts in the questionnaire in order from 1 to 9. Subsequently, the KJ (Kawakita, 1967) method was utilized. The survey results of middle school, high school and university students were classified respectively in order to carry out the next step of specific image analysis. The specific steps of the analysis are as follows: 1) The author and two survey assistants preliminarily determined the secondary categories of images based on the picture title, content and related text. 2) On the basis of the first step, a primary category containing all secondary categories is summarized. 3) Three additional survey assistants were invited to confirm the classification results, and the agreement rate reached 91.5%. 4) For the different categories, the author and five survey assistants jointly confirmed and finally identified 24 primary categories and 252 secondary categories. Refer to Table 1 for primary categories, their definitions, and their corresponding typical secondary categories.

Table 1(a): Classification of the Images of Japan

	Primary Categories	Definition	Typical Secondary Categories	Evaluate
1	Representative Scenery	Cherry blossoms, Mount Fuji and other things that are most representative of Japan in the eyes of the Chinese people	cherry blossoms, Mount Fuji	Vigorous

Table 1(b): Classification of the Images of Japan

	Primary Categories	Definition	Typical Secondary Categories	Evaluate
2	Sightseeing	Tourist cities, famous scenic spots and other things related to sightseeing in Japan	beautiful scenery, night view of Tokyo, Kyoto, Hokkaido, Okinawa, hot springs	Vigorous
3	Economy	Things related to the Japanese economy	developed economy, industry	Vigorous
4	Technology, High Performance and High Quality	Something that represents Japan's advanced technology and high-quality Japanese products	technology, Shinkansen, cars, appliances, watches, high quality architecture	Vigorous
5	Intimacy	Something that makes people feel close to Japan	Sekiya in TV drama "Ipartment", Yada Koji	Vigorous
6	Order, Etiquette and Custom	The order, etiquette, and habits of Japanese society that have been passed down from ancient times to the present day	stable social environment, safe, public order, clean, polite, serious, honest	Vigorous
7	Popular Culture	Japanese anime, manga, games, TV series, movies, songs and other contemporary Japanese popular culture	anime, manga, mystery novels, games, horror movies, songs, stars	Vigorous
8	Traditional Culture	Traditional clothes and other things related to traditional Japanese culture	kimono, sumo, judo, tea ceremony, Shrine, carp flag	Neutrality
9	Food Culture	Japan's unique food and Japanese food culture	sushi, ramen, sake, matcha, Yoshinoya	Neutrality
10	Nationality and Language	Things related to the appearance of the Japanese people, the characteristics of the Japanese nation, the Japanese language, etc.	Japanese, Japanese women, short, Japanese, unity, Yamato nation, good at imitation	Neutrality
11	Physical and Geographical Environment	Things related to the natural conditions and geography of Japan	map, island, sea, frequent natural disasters, earthquakes	Neutrality

Table 1(c): Classification of the Images of Japan

	Primary Categories	Definition	Typical Secondary Categories	Evaluate
12	Living Environment	Japanese people's living environment and other things that Japanese people often come into contact with in their lives	seafood is cheaper than meat, villas, rooms, tatami MATS, vending machines	Neutrality
13	Fashion	Japanese fashion, Japanese clothing brands and makeup tips	student clothes, clothing brands, makeup	Neutrality
14	Literature	Famous Japanese writers, literary works, and things related to Japanese literature	student clothes, miniskirts, clothing brands, makeup, Nobel Prize in Literature, Akutagawa Ryunosuke, Kawabata Yasunari, Norwegian Wood	Neutrality
15	History of Japan	history of Japan and related matters before the Sino-Japanese War	Japan learned from China, Jian Zhen eastward, after the Meiji Restoration	Neutrality
16	Symbol of Japan	The Japanese flag and the Japanese emperor	the Emperor, the flag	Neutrality
17	Traditional Thought	Bushido and the difference in the status of men and women are representative of traditional Japanese thought	Bushido, the status of Japanese women, male superiority and female inferiority	Neutrality
18	Modern Society	Various phenomena existing in Japanese society	high suicide rate, gangland, education level	Neutrality
19	Adult Entertainment Trade	Things related to the adult entertainment trade such as adult films	adult entertainment shops, adult movies	Neutrality
20	Chinese anti-Japanese Drama and anti-Japanese Film	Chinese film and television works on the theme of Anti-Japanese War	anti-Japanese drama and movie "Nanjing! Nanjing!"	Neutrality

Table 1(d): Classification of the Images of Japan

	Primary Categories	Definition	Typical Secondary Categories	Evaluate
21	Understanding of War and History	A critical description of matters related to the war between China and Japan and of the Japanese government's understanding of the war against Japan	Anti-Japanese War, Nanjing Massacre, Japanese army, denial of history, tampering with textbooks	Passive
22	Political and Territorial Issues	Political issues related to China, such as Sino-Japanese relations, and issues related to contemporary Japan, such as whaling	Sino-Japanese relations, the Diaoyu Islands incident, nuclear radiation, whaling, constitutional amendment, Shinzo Abe	Passive
23	Anti-Japanese Sentiment	Acts and language expressing antipathy towards Japan	Japan is unfriendly to China, bullies China, boycotts Japanese products, little Japan, and dirty words	Passive
24	Unknown	It is not clear how it relates to Japan	people, duty-free shop	
25	Blank Item	Blank squares without pictures and descriptions		

3.2 The Overall Characteristics of the Images of Japan

In this survey, we collected a total of 4,840 pictures, including 1,402 for middle school students, 2,012 for high school students, and 1,426 for university students. The author classifies these pictures according to the above classification steps, and uses the itemset support algorithm to calculate the itemset support of middle school students, high school students, university students and all respondents. All the results are arranged in order of the support of all the respondents from highest to lowest. The results are shown in Figure 1. In order to compare the differences in the images of Japan among the three groups of students, the author first conducted a Chi-square test on the survey results of middle school students, high school students and university students. The results showed that there were significant differences in the students' images of

Japan ($\chi^2=185.308$, $df=46$, $p < 0.001$).

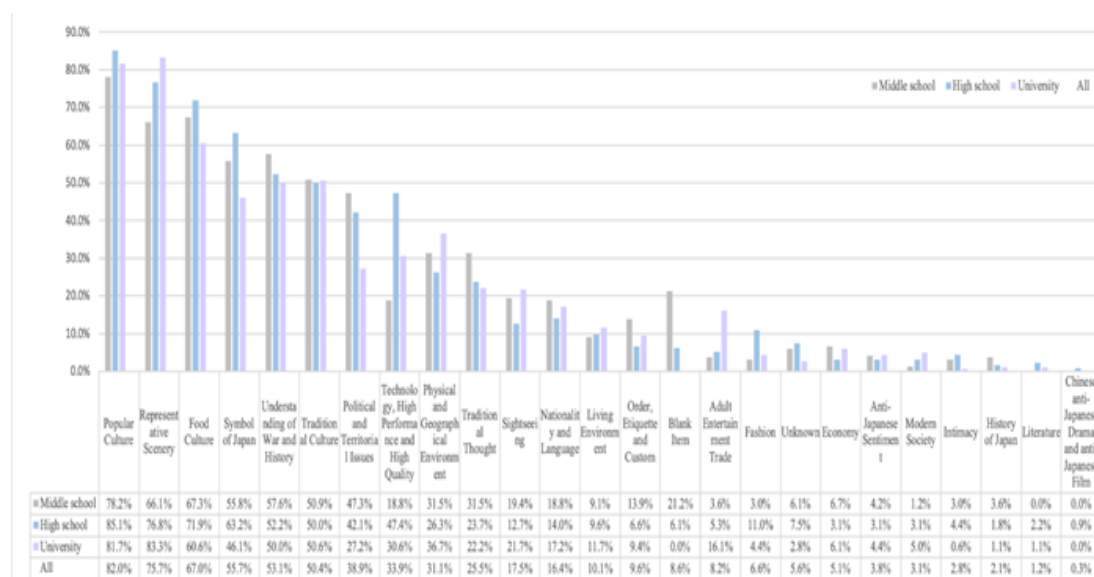


Figure 1: Chinese Youth's Image of Japan

In terms of image ranking, the categories in which the respondents' image of Japan reached more than 20% support include "popular culture", "representative scenery", "food culture", "symbol of Japan", "understanding of war and history", "traditional culture", "politics and territorial issues", "technology, and high performance and high quality", "natural and geographical environment" and "traditional thought". While support rankings vary across student groups, the top 10 image categories are essentially the same. However, the top 10 images of middle school students did not include "technology, high performance and high quality", but included the tenth place "blank item", which means that at the middle school level, a significant number of students were unable to draw nine pictures. In contrast, high school and university students are more impressed by "technology, high performance and high quality". Secondly, from the perspective of evaluation elements of image, positive image and neutral image are more prominent than negative image. First, among all respondents and the three student groups, the top three images were positive, including "popular culture", the "representative scenery" and "food culture". Among them, "popular culture" ranked first among middle and high school students, and second among university students, with support ratings of more than 70 %, which is a high-frequency positive image. Among the top ten images, "representative scenery" was the only category that its support increases progressively with academic levels. Second, among the images where the support reached above 20% in different academic levels, only the "understanding of war and history" and

“politics and territorial issues” were negative images. With the advancement of academic level, the support degree of these two negative images showed a downward trend. Specifically, “understanding of war and history” ranked fourth among middle school students and fifth among both high school and university students, with more than 50 % support from each student group. The ranking of “politics and territorial issues” from middle school to university was seventh, eighth and ninth, with support rates of 47.3%, 42.1%, and 27.2%, respectively. These fall under high-frequency images with support exceeding 20%. This result shows that although there are fewer types of negative images, their frequency is high, and they constitute an important part of the youths’ images of Japan.

3.3 The Forming Process of the Images of Japan

3.3.1 Image Categories with Rising Support

With the advancement of students’ academic level, the support degree of certain image categories showed a significant upward trend, including “representative scenery”, “living environment”, “adult entertainment trade” and “modern society”. The four categories of image with increasing support include “representative scenery”, “living environment”, “adult entertainment trade” and “modern society”. Among them, “representative scenery” mainly includes the two most representative natural scenery in Japan, namely cherry blossoms and Mount Fuji. The survey results show that in the three groups of students, this image has obtained a high rate of support, and with the advancement of students’ academic level, the support rate of this image not only maintains a high level, but also shows an obvious growth trend. This demonstrates that the most representative landscapes of Japan are not only present throughout the different stages of youth development but also become more entrenched and widely recognized as students mature. The three categories of “living environment”, “adult entertainment trade” and “modern society” exhibited trends similar to those of “representative scenery”, but their support rates were lower in each student group, all below 20%. Among them, the secondary category of “living environment” mainly includes elements closely related to daily life, such as “seafood is cheaper than meat”, “Washitsu” and so on; The second category of “adult entertainment trade” involves words and movies related to adult entertainment trade, such as “prohibited for minors” and “adult entertainment shop”; The secondary category of “modern society” includes positive, neutral and negative parts. Positive images include “advanced education level” and “people yearning for peace”; neutral images include “education method is different from China” and

“contradiction between the two classes”; negative images include “high suicide rate” and “train molester”. From the specific content of the secondary categories, it can be seen that the above three categories are related to “things or phenomena existing in contemporary Japanese society”. At the same time, although the change rules of these three categories show an upward trend, the overall change trend is relatively stable. Among them, only “adult entertainment trade” has more than 10% support difference between high school students and university students. This indicates that more adult students understand specific trades in Japanese society that are different from Chinese society.

3.3.2 Image Categories with Declining Support

With the advancement of students' academic level, support for some image categories showed a downward trend, including “understanding of war and history”, “politics and territorial issues”, “traditional thought”, “history of Japan”, and “blank items”. Of particular note are the categories “understanding of war and history” and “politics and territorial issues”, which are the only two frequently negative images in the survey. This suggests that as students expand their knowledge and broaden their horizons, their perspectives on these sensitive topics may become more thoughtful and sophisticated. First of all, when exploring the category of “understanding of war and history”, we find that its secondary category mainly covers three aspects. First, it includes pictures and words that depict “the greatness of China” and “the understanding of war”, such as “the Eighth Route Army of China is a hero” and “the national humiliation”. Second, it relates to the historical descriptions of the Anti-Japanese War in textbooks and the images of the Japanese army depicted in anti-Japanese film and television works, such as “fascist”, “Nanjing Massacre”, “Japanese devils”, “cruel” and so on. Third, it mainly comes from the news media, reflecting the attitude of the Japanese government against the war, such as “not recognizing history”, “Yasukuni Shrine” and so on. Among these three types of images, the descriptions related to Anti-Japanese War are not only diverse but also detailed. Respondents' images of the war against Japan ranged from knowledge of specific historical events to detailed depictions of the Japanese military. It can be seen that the image of “understanding of war and history”, which is closely related to school history education, anti-Japanese film and television works and news media, has the highest support rate among middle school students, and the support rate is as high as 57.6%. In high school, support for this image remained high (52.2%), but decreased. At the university level, although the probability of this image

continues to decline, the decrease is very small (2.2 %). To sum up, although the image of “understanding of war and history” is at a high level in all student groups, it shows a downward trend as a whole, and this trend becomes more and more stable with the advancement of academic levels. Secondly, similar to “understanding of war and history”, the second category of “political and territorial issues” mainly covers three aspects: First, the theme closely related to the Diaoyu Islands issue, such as “Diaoyu Islands belong to China”; The second is related to Sino-Japanese relations and Japan-US relations, including “Sino-Japanese antagonistic relations”, “Japan-US collusion” and so on; The third is Japan’s domestic problems, such as “Fukushima nuclear leakage accident” and “whaling issue”. Since the Diaoyu Islands incident in 2010, relevant issues have been intensively reported by the Chinese media, which has influenced the Chinese students’ images of Japan. At the same time, international issues in Japanese society also attracted the attention of respondents, and although these images are not directly related to China, they reflect the diversity of youths’ international perspectives and images of Japan. In terms of support, although the overall trend is downward, support for these images is similar for middle and high school students, both at more than 40%, while support for university students drops to 27.2%, showing a clear difference from high school students. This change shows that the image diminishes as the academic level progresses, especially during the transition from high school to university. Therefore, it can be believed that compared with middle and high school students, university students are more likely to treat “political and territorial issues” in an objective and calm attitude. Thirdly, the second category of the image of “traditional thought” mainly involves two aspects: first, the elements closely related to the Japanese Bushido, such as “samurai”, “seppuku”, “katana” and so on; Secondly, the cognition of the status of men and women, including “male superiority”, “human rights” and so on. Compared with the above two images, the support rate of “traditional thought” is low, from middle school to university, respectively, 31.5%, 23.7%, 22.2%, but the support rate of about 20% to 30% indicates that this category is still a high frequency image. Notably, the image was the most frequent among middle school students, with support declining from high school to university, but only by 1.5 %. It can be seen that since high school, the image of “traditional thought” in the minds of respondents tends to be stable. In addition, the secondary category of “history of Japan” covers pictures and texts related to ancient and modern Japan, such as “Japan learned from China” and “Meiji Restoration”. However, support for these categories is generally below 5%, which is a low-frequency image.

In terms of evaluation elements, although the above four types of images are negative and neutral, they include images related to historical issues left over from Anti-Japanese War and the Diaoyu Islands incident, images related to the spiritual world inherited from ancient Japan, and images related to ancient and modern Japan. Therefore, they all share a common core attribute — “Japan in the past”, which reflects respondents’ multidimensional understanding and complex emotions about Japanese history. Finally, the “blank items”, as part of the study, although not included in the quantitative statistics of the primary categories, reflect the respondents’ inability to generate more images of Japan. In terms of support for “blank items”, 21.2% of middle school students were significantly higher than 6.1% of high school students and 0% of university students. This data shows that compared with high school students and university students, middle school students have a relatively simple images of Japan, and they have less understanding of relevant knowledge about Japan.

3.3.3 The Image Categories with the Highest Support from High School Students

These categories include “popular culture”, “food culture”, “Symbol of Japan”, “technology, high performance and high quality”, “fashion”, “unknown”, “intimacy”, “literature” and “Chinese anti-Japanese drama and anti-Japanese film”. Although the image categories with the highest support from high school students were the most numerous, only four categories, “popular culture”, “food culture”, “Symbol of Japan”, and “technology, high performance and high quality”, received more than 20 % support. First, in the “popular culture” image, the secondary category presents quite a rich content. First, anime and manga related content accounts for the vast majority. Among them, it covers anime and manga in their entirety, along with their related aspects, such as “anime”, “MOE culture”, anime magazine “Shonen JUMP”, etc.; It also includes content directly related to anime, for example, respondents listed more than 40 works and characters in genres including children’ s, shojo, historical, sports, mystery, Boys’ Love, passionate, horror, as well as anime movies, etc. In addition, there are also specific descriptions of cartoonists, anime music and characters. Second, mystery novels, Japanese dramas, horror films and their characters and authors are also mentioned. Third, pop music and popular artists also appear in the questionnaire. Although the secondary category of “popular culture” is rich and varied, it is mainly focused on anime related images. In terms of support, high school students

took the lead with 85.1 %, while middle school students and university students received 78.2 % and 81.7 %, respectively, indicating that popular culture is extremely important at different academic levels. At the middle and high school levels, the category of “popular culture” takes the top spot, whereas at the university level, it ranks second, with a negligible gap of only 1.6%. Therefore, it can be concluded that “popular culture” constitutes a central component of Chinese youths’ images of Japan. Secondly, the second category of “food culture” image can be summarized into four aspects: first, the overall description of “Japanese cuisine” and “delicious cuisine”, which reflects the respondents’ overall image and favorable image of Japanese food culture; Secondly, the names of representative ingredients and dishes in Japan, such as “seafood”, “Kobe beef”, etc., these specific food names show the respondents’ rich and specific understanding of Japanese diet; Third, Japanese restaurants and food brands that have entered the Chinese market, such as “Yoshinoya” and “Fuji”, etc. The wide spread of these brands in the Chinese market has deepened the respondents’ understanding and cognition of Japanese food culture. Finally, there are statements about Japanese eating habits, such as “eat anything raw” and “ice water”, which reveal the respondents’ abstract cognition of Japanese food culture. Although the content of “food culture” is relatively simple compared with “popular culture”, the types of its secondary categories are quite rich. From the above results, it can be seen that respondents, especially high school students, show a strong interest in food culture, which is closely related to our daily life. They are able to transcend the restrictions of national borders and master relatively rich knowledge related to Japanese food culture, which reflects the open attitude of contemporary young people to diverse cultures. Third, although the category “symbols of Japan” consists only of two secondary categories, “national flag” and “Emperor”, both have a high support rate exceeding 40%. Specifically, among high school students, the support of these two political symbols reaches 63.2%. This indicates that high school students have a clear understanding of the concept of Japan's national symbols. Finally, in the image category of “technology, high performance and high quality”, the secondary category covers the general understanding of Japan’s technological development, such as “advanced technology” and “high quality architecture”, as well as the description of specific Japanese brands, including the automobile brands “Toyota”, “Honda” and “Nissan”, and the electronics brands “SONY”, “Toshiba” and “Hitachi”. There are also common Japanese products in daily life such as “refrigerator”, “watch”, “Pilot pen” and so on. Japan’s advanced status in science and technology

has been globally recognized, including by China. With China's rapid economic growth, the public's demand for high-tech products is rising. Although domestic brands are on the rise, they are still struggle to fully meet the diversified needs of the market, resulting in increased attention towards Japanese brands. This is particularly evident among high school students who are actively exploring and discovering new things, showing a heightened interest in high-tech products. In summary, the above four categories of images highlight characteristics such as "Japanese uniqueness" or "distinct advantages compared to China". This reflects that high school students, as a group, are more inclined to pay attention to things that have particularities and differences.

4. CONCLUSION AND DISCUSSION

4.1 The Overall Characteristics of the Images on Japan

In this study, middle school students, high school students and university students studying in Harbin city were investigated, and the nine-in-one drawing method was adopted to explore the Chinese youths' image of Japan. Based on the survey results, the author divides the most complex cognitive elements of the images of Japan into 24 categories by KJ method. Among these, 7 were identified as positive, 13 as neutral, and only 3 as negative. This result shows that Chinese youth's images of Japan are mainly positive and neutral, and relatively few negative images. In terms of the specific content of the images of Japan, the survey revealed a rich diversity. On the one hand, it includes "representative scenery", "popular culture" and other things closely related to contemporary Japan; On the other hand, it also covers elements related to ancient and Japan such as "history of Japan", "traditional thought" and "traditional culture". The above images show Chinese youths' understanding of or interest in contemporary Japanese society, as well as its history and culture. It is worth noting that the survey results also contain the images of close relations with China, such as "understanding of war and history" and "political and territorial issues".

These images reflect the complex historical and realistic relations between China and Japan, as well as the profound understanding and thinking of Chinese youth. The results of this study are consistent with the view of Fan (Fan, 2007). Chinese people's image of Japan is neither simplistic nor standardized, but rather diverse and intricate. This discovery not only helps us to have a more comprehensive understanding of Chinese youth's cognition and attitude toward Japan, but also provides a useful

reference for fostering exchanges and cooperation between China and Japan.

4.2 The Forming Process of the Images of Japan

This study reveals a phenomenon: with the advancement of the students' academic level, respondents' support for those things or phenomena that reflect contemporary Japanese society, such as "representative scenery", "living environment", "adult entertainment trade" and "modern society" increased. Among these categories, except for "representative scenery", which showed a relatively significant increase, the support trend of the other three categories remained relatively stable. In contrast, those images associated with "Japan in the past", such as "understanding of war and history", "political and territorial issues", "traditional thought", and "history of Japan", experienced a decline in support. In addition, high school students exhibited the highest support across nine image categories. Notably, only four of these categories - "popular culture", "food culture", "symbol of Japan", and "technology, high performance and high quality" - garnered more than 20 % support. These categories are often recognized for their unique Japanese characteristics or perceived advantages over China. Piaget's (Piaget, 1969) theory of cognitive development proposes that children enter the "formal operational stage" roughly around the age of 11. During this stage, they gradually shed the constraints of reality and concentrate on abstract and hypothetical problems. According to the characteristics of the respondents' images of Japan, the middle school stage is in the early stage of "formal operation stage". During this period, students obtain information about Japan mainly through schooling and traditional media.

Jiang (2017) observed that traditional media influences can lead audiences to form both positive and negative perceptions. In other words, the same information source can form the images of Japan belonging to different evaluation elements. The author believes that the reason for this phenomenon is that the formation of the images of Japan is not only related to the source of information, but also closely related to the individual's ability to process information. Given that middle school students are in the early stage of formal operation, their ability to handle complex knowledge is not fully developed. Consequently, their images of Japan are often relying on simplistic, mechanistic, and superficially processed information. After entering the high school stage, students' "formal operational ability" significantly improves. They no longer just rely on textbooks and traditional media, but become more proactive in

obtaining information through various channels. According to a survey by the China Internet Network Center (2020), individuals aged 10 to 29 constitute 40.8% of internet users, with students accounting for 26.9% of this group. Since the vast majority of Internet users are Chinese youths, it can be assumed that as students' formal operational ability enhances, they begin using more diverse methods to enrich their understanding of Japan. Moreover, the high school stage is also a turning point for students to free themselves from the restrictions of information acquisition in middle school. Curiosity drives them to actively seek new knowledge and information, more so than university students. This active pursuit contributes to why high school students have the most varied images of Japan. Finally, upon entering the university stage, students, through the process of accumulating knowledge during high school, become more rational.

Moreover, the further refinement of their "formal operational ability" makes their cognitive level reach a new height. Therefore, university students' images of Japan gradually become more stable and systematic, leading to a more comprehensive and profound understanding. Comprehensive analysis reveals that middle school students tend to form their images of Japan through traditional and passive information acquisition, resulting in their image is relatively simple and their knowledge reserve is relatively limited. In contrast, high school students begin to get rid of the restrictions of access to information, showing a significant concern for "uniqueness" and "difference". With their enhanced "formal operational ability", high school students become increasingly proactive in acquiring information, a trend that is particularly pronounced compared to middle school students. After entering the university stage, although they are similar to high school students in the overall composition of their images of Japan, in terms of the degree of support for each image category, university students show a more peaceful curiosity, and they are calmer and more rational in choosing and processing new information.

4.3 Deficiency and Prospect

This study has made some achievements in revealing the characteristics of Chinese youths' images of Japan, but there are also some limitations. Primarily, the study was confined to students in Harbin city, thereby restricting the findings to portray the image of Japan among youths in this specific urban setting. In order to achieve a more comprehensive understanding of the universality and difference of Chinese youths' images of Japan, future studies can expand the sample scope and set the research

objects as youths studying in cities with more contact opportunities with Japan. This will facilitate comparative analysis with the results of this study. Secondly, although this study deeply analyzes the forming process of images of Japan of three different academic level students from the perspective of cognitive development theory, it mainly focuses on the causes of these images from the perspective of cognitive subjects. As for the object factors that affect the formation of the images of Japan, such as access to information, remains somewhat superficial. In order to have a more comprehensive understanding of the formation mechanism of the images of Japan, future studies could conduct empirical research specifically on the access to Japanese information. This would involve exploring the distinct impacts of various information sources on youths' images of Japan, thereby offering a more comprehensive insight into the multifaceted factors influencing the forming process of these images of Japan. Such efforts would enable a more accurate grasp of the characteristics and evolving dynamics of youths' images of Japan. Finally, compared to the study by Wen (Wen, 2023) that used open-ended questionnaires, although this study had fewer respondents, it collected a greater number of secondary categories, pictures and related texts. There are also differences in the characteristics of images across different students' academic levels. The variations in results may be attributed to the different survey methods used, which warrant further exploration in future studies.

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Online Resource

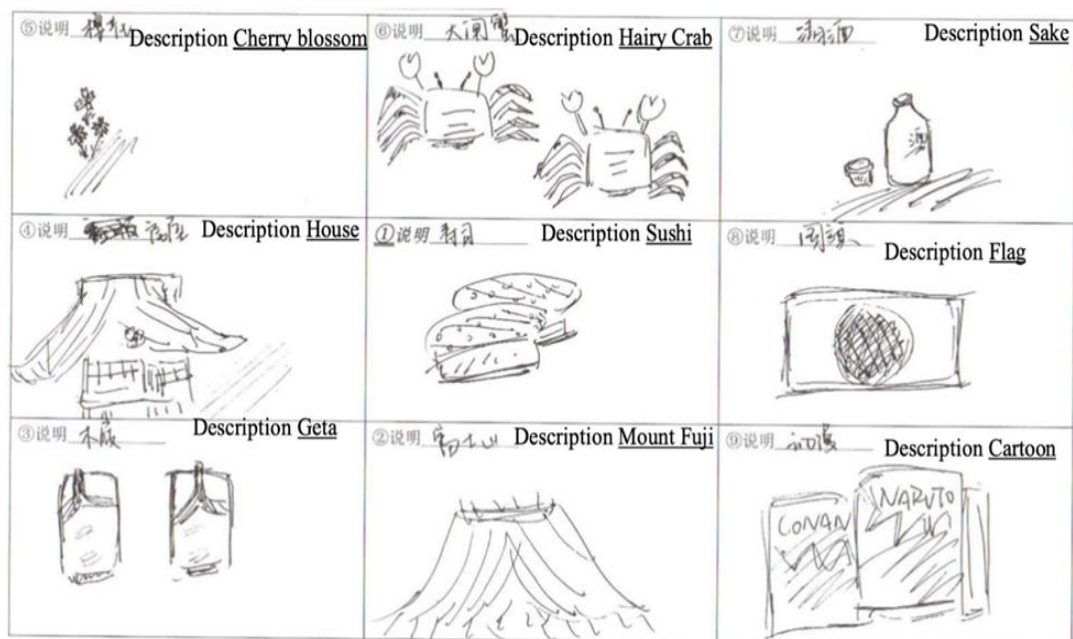
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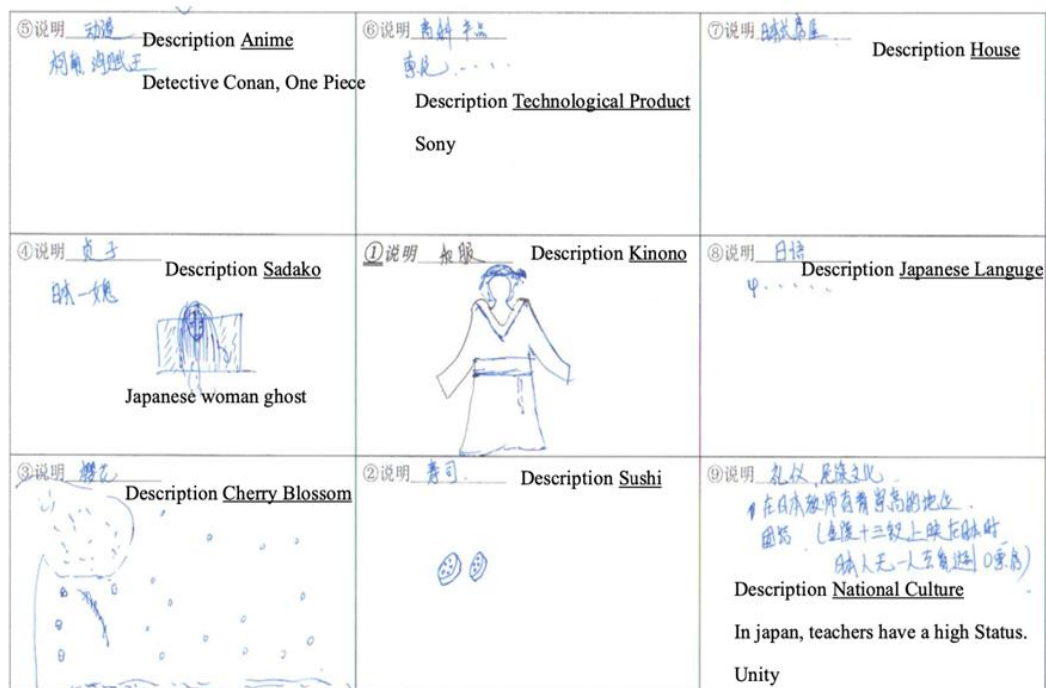
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APPENDIX



Drawing Example 1



Drawing Example 2