A Subcultural Comparative Analysis: The Case of China, Japan, and Korea

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Abstract:

As influential nations in East Asia, China, Japan, and South Korea have made significant contributions to both regional and global popular culture. The modern Hanfu movement in China, the ACG (Anime, Comics, and Games) culture of Japan, and the K-pop phenomenon of South Korea are representative of each country's distinct popular culture, attracting worldwide attention. This study aims to explore the perceptions of the Chinese public towards these three subcultures. The reasons underlying their views are also discussed. A reaction time experiment was conducted to provide quantifiable and precise outcomes. Stimuli consisted of images representing each culture, accompanied by descriptions using positive, and negative words. Participants were asked to judge whether they agreed with the combinations of images and descriptions. Reaction times and choices were used to gauge their attitudes towards the subcultures. Data analysis revealed that Chinese participants showed a very positive perception of the modern Hanfu culture based on higher positive scores and a shorter reaction time. Conversely, their impressions of K-pop were less favorable, with the highest negative scores. The score towards ACG culture is between Hanfu and K-pop. However, people are less familiar with ACG culture due to the longest reaction time. Age-based categorization indicated that younger individuals had higher awareness for all three subcultures, and their overall attitudes towards subcultures were more positive comparing with the older groups. Previous studies have inadequately addressed subcultures as specific topics. This research not only fills a gap in the academic research of East Asian subcultures but also provides a novel methodology. It provides an updated understanding of East Asian cultures and promotes an inclusive perspective on cultural diversity.

Keywords: East Asia, Subculture, Hanfu, K-pop, ACG, Reaction time

1. Introduction

Subcultures represent distinct cultural phenomena that emerge from specific groups within the broader context of mainstream culture. These groups often possess unique values, beliefs, lifestyles, behavioral norms, and aesthetic standards that set them apart from the mainstream cultures. Subcultural expressions exist in various areas such as music, fashion, language, and art, and they also signify group identities within particular social and historical contexts (Hebdige, 1979). By providing a sense of belonging, subcultures assist members in finding identity and expressing individuality within complex social settings. Engagement in subcultural activities allows individuals to connect with others who share similar interests, forming communities that have strong self-identity (Bennett, 1999). The evolution and growth of subcultures are subject to influences from social, economic, and political forces etc. As influential nations in East Asia, China, Japan, and South Korea, with their rich cultural legacies, have a broad impact. Their popular subcultures not only shape the region but also extend their reach globally.

K-pop, a distinctive subcultural phenomenon that originated in South Korea during the 1990s, has grown into a global cultural trend. Characterized by a fusion of diverse musical styles—including electronic, hip-hop, R&B, and rock—along with intricate choreography and a unique visual and fashion aesthetic, K-pop transcends being merely an entertainment commodity. It has become a significant expression of Korea's soft power, facilitating the international dissemination of Korean culture (Jin & Ryoo, 2014).

The ACG subculture, usually referred to as a cultural phenomenon originating in Japan including anime, manga, game and related contents. This subculture has developed a unique sense of community and identity across the globe, especially among young people. ACG culture first emerged in the mid-20th century and began to flourish with the rise of the Japanese animation industry, especially in the 1980s and 1990s. ACG culture emphasizes a sense of community participation, with fans interacting and communicating through online forums, social media, and offline events such as anime conventions. This interaction not only deepens the bonds between fans, but also facilitates the spread and evolution of the culture (Hills, 2002).

With roots dating back to the era of the Yellow Emperor (2000-3000 B.C.) and evolving through numerous dynasties (Teng, 2013), Hanfu had been the predominant form of dress in Chinese history until it was largely replaced by Western-style clothing in the 20th century. However, a resurgence of Hanfu culture has taken place in the early 21st century, driven by a growing sense of national pride and cultural confidence. The modern Hanfu movement has formed a new subculture and gained attention both within China and across the globe, reflecting a renewed interest in the traditional attire of Chinese people. This movement includes not just the act of wearing Hanfu but also a broader commitment to preserving the traditional culture, historical narratives, and social protocols. This revival has led to the formation of vibrant communities. The fans engage through online platforms, social clubs, and various events such as parades and photo shoots, which serve to both promote Hanfu culture and strengthen participants' sense of national identity and community (Liu, 2021).

The historical and contemporary cultures of China, Japan, and South Korea have been extensively studied, with a focus on areas such as historical context, religious beliefs, modern art, and literature (Wang, 2016; Kim, 2017; Chen, 2018; Park, 2019). Subcultures of these nations were not widely discussed. This study aims to address this gap by evaluating Chinese people's perceptions of above popular subcultures using a reaction time experiment. This method offers a more objective and precise alternative to traditional surveys and interviews, providing empirical data on participants' potential preferences and emotional reactions. The present study not only contributes to the academic research on East Asian subcultures but also introduces a novel research approach. It aims to enhance the understanding of East Asian cultures and foster a more inclusive appreciation of cultural diversity.

2. Methods

2.1 Participants

In this experiment, a total group of 37 participants (Mage=25.32, SD=13.06) from Shanghai and Qingdao were randomly selected. The sample consisted of 25 females and 12 males. Each participant was briefed on the process and requirements of the study. They all agreed to participate the experiment.

Age information was collected to divide participants into two age groups: 'young' for those under thirty years of age and 'older' for those above thirty. This categorization allowed for a more structured examination of potential age-related differences in the responses to the experimental stimuli.

2.2 Stimuli

A total of nine images were selected as stimuli for this experiment: three representative images for K-pop (K), three for ACG (A), and three for modern Hanfu culture

(H). Alongside these images, three positive and three negative descriptors were chosen to characterize each culture. Apart from that three other descriptions were used as distractors.

For K-pop culture, the positive descriptions were: globally popular, inspirational, energizing; the negative descriptions were: boring, pretentious, superficial; the distractors were: commercialized, fan economy, Korean culture. For ACG culture, the positive descriptors were: hot-blooded, cute, childlike; the negative ones were: disgusting, sick, brainless; the distractors were: self-expression, Japanese culture, ACG product market;. For Hanfu, the positive descriptions were: national cohesion, cultural confidence, classical modesty; the negative ones were: feudal trash, strange clothes, claptrap; the distractors were: Chinese culture, traditional dress, national symbols;.

These descriptors corresponded to the images of the respective cultures and were displayed on-screen with the images on the left and the words on the right. A total of 18 trials were conducted to match the images and words of the three cultures. The presentation order of each trial was randomized.

2.3 Design and procedure

This study employed a within-subjects design. Each participant experienced all experimental conditions. Participants reviewed and signed an informed consent form before the experiment started. They were then guided by the experimenter to a computer station where an on-screen instructional message outlined the subsequent steps and experimental requirements. The initial phase involved a learning component, during which participants were presented with three pages introducing the relevant subcultures to familiarize themselves with the content. Following this learning phase, images representing the three subcultures were displayed alongside their corresponding descriptions, with one picture-word pair shown at a time.

Participants were asked to evaluate whether the words accurately described the culture depicted in the images. They were to press the left button if they agreed with the description and the right button if they disagreed. Upon making their judgment, the screen would automatically proceed to the next trial, with the order of culture-image and word pairings randomized for each presentation.

Once all 18 trials were completed, participants were informed that the experiment had completed. After all participants finished, the experimental data—including keypress records and reaction time for each judgment—were exported for analyses.

2.4 Data analysis

Raw data was preprocessed prior to analysis, which involved quantifying participants' keypress responses. Participants who made an agreeing keypress (left key) were assigned a score of 1, while those who made a disagreeing keypress (right key) were assigned a score of 0.

To assess Chinese attitudes toward the three Asian subcultures, a one-way ANOVA and within-group t-tests were conducted to evaluate the responses to the positive and negative descriptions of the cultures provided by the participants. Additionally, to explore the attitudes of participants from different age groups toward these subcultures, between-group t-tests were conducted. This analysis compared the ratings and response time between younger and older participants, on their positive and negative descriptions of the three cultures.

3. Result

3.1 Single-factor ANOVA analysis and T-test for the scores

A single-factor ANOVA analysis indicated that there was a significant difference ($F=6.99$, $p<0.05$) in the subjects' negative ratings of the three subcultures. Further t-tests revealed that the negative ratings for Hanfu (H) were significantly lower ($M=0.27$, $SD=0.51$; $p<0.05$) than those for ACG (A) ($M=0.43$, $SD=0.60$) and K-pop (K) ($M=0.92$, $SD=1.09$). Additionally, the negative ratings for K-pop ($M=0.92$, $SD=1.09$) were significantly greater ($p<0.05$) than those for ACG ($M=0.43$, $SD=0.60$) and Hanfu ($M=0.27$, $SD=0.51$). In terms of positive ratings for the three subcultures, the subjects' ratings for Hanfu ($M=2.54$, $SD=0.78$) were significantly higher ($p<0.05$) than those for K-pop ($M=2.19$, $SD=0.73$).

3. Single-factor ANOVA analysis and T-tests for reaction time

A single-factor ANOVA analysis revealed significant differences ($F=9.26$, $p<0.05$) in participants' reaction time when making negative judgments about the three subcultures. Subsequent t-tests indicated that the reaction time for Hanfu culture ($M=6.69$, $SD=2.88$) were significantly faster ($p<0.05$) than those for ACG culture ($M=9.56$, $SD=3.07$) and K-pop ($M=8.38$, $SD=2.68$). Additionally, the reaction times for ACG culture (A) ($M=9.56$, $SD=3.07$) were significantly slower ($p<0.05$) than those for Hanfu culture ($M=6.69$, $SD=2.88$) and K-pop culture ($M=8.38$, $SD=2.68$).

Similarly, a significant difference ($F=4.58$, $p<0.05$) in

reaction time was observed when making positive judgments. The reaction times for Hanfu (*M=6.11, SD=2.57*) were significantly faster (*p<0.05*) than those for ACG and K-pop, and the reaction time for ACG (*M=8.01, SD=2.91*) were significantly slower (*p<0.05*) than those for Hanfu (*M=6.11, SD=2.57*) and K-pop (*M=7.32, SD=2.69*).

3.3 T-test for the scores between the young and the older group

Between-group t-tests indicated that in negative ratings, the older adults assigned significantly higher scores (*p<0.05*) to ACG (*M=0.80, SD=0.63*) and K-pop (*M=1.7, SD=1.16*) compared to younger individuals (*A: M=0.30, SD=0.54; K: M=0.69, SD=0.93*). Conversely, in positive ratings, older individuals gave significantly lower scores (*p<0.05*) to ACG (*M=2.00, SD=0.67*) than younger groups (*M=2.48, SD=0.70*).

3.4 T-tests for reaction time between the young and the old group

Between-group t-tests indicated that older adults exhibited significantly longer reaction time (*p < 0.05*) compared to younger individuals across all three subcultures. The mean reaction time for older adults were as follows: ACG negative (*M = 12.34, SD = 2.09*), ACG positive (*M = 9.35, SD = 2.89*), Hanfu negative (*M = 9.46, SD = 3.33*), Hanfu positive (*M = 7.81, SD = 2.60*), K-pop negative (*M = 9.24, SD = 2.02*), and K-pop positive (*M = 8.40, SD = 2.88*). In contrast, the mean reaction time for the younger group were: ACG negative (*M = 8.53, SD = 2.72*), ACG positive (*M = 7.51, SD = 2.80*), Hanfu negative (*M = 5.66, SD = 1.89*), Hanfu positive (*M = 5.48, SD = 2.30*), K-pop negative (*M = 8.06, SD = 2.86*), and K-pop positive (*M = 6.92, SD = 2.57*).

Table1: Scores and Reaction Time For ACG, Hanfu and K-pop

		ACG		Hanfu		K-pop	
		Score	Reaction Time (s)	Score	Reaction Time (s)	Score	Reaction Time (s)
Negative	Total	0.43	9.56	0.27	6.69	0.92	8.38
	Young	0.30	8.53	0.30	5.67	0.63	8.06
	Old	0.8	12.34	0.20	9.46	1.70	9.24
Positive	Total	2.32	8.01	2.54	6.11	2.19	7.32
	Young	2.48	7.51	2.50	5.48	2.11	6.93
	Old	2.00	9.36	2.56	7.81	2.40	8.40

4. Discussion

This study explores Chinese people's attitudes of three subcultures in Asia and discusses the reasons behind. Reaction time technique is used as the experimental method. The results of the data analysis show that Chinese subjects have a better impression of Hanfu culture native to China. Hanfu culture received the lowest negative ratings and the highest positive ratings. At the same time, it has a shorter reaction time when people evaluate Hanfu culture. The opposite is for Korean K-pop culture, which scored much higher in negative ratings than either of the other two. When judging ACG culture, which originated in Japan, subjects had much higher reaction time in both positive and negative ratings than K-pop and Hanfu. In addition, data analysis of the age dimension revealed that young people's reaction times were much faster than those of older people when judging all three cultures either positively or negatively. Older people's negative evaluations of ACG and K-pop were much higher than those of young people.

The positive evaluation of Hanfu culture may be caused by the subjects' cultural identity. Cultural identity is a social psychological process in which individuals enhance their self-identity construction and sense of belonging by identifying with a particular culture. According to Tajfel and Turner's social identity theory, people tend to evaluate the cultural group they belong to more positively (Tajfel & Turner, 1979). Thus identification with traditional Chinese culture makes the Chinese peole much more fond of Hanfu than other national subcultures. The result is also consistent with Huang's findings (Huang & Geng, 2018). In addition. The short reaction time indicate people are more familiar with Hanfu. The strong publicity of Hanfu and traditional Chinese culture on social media platforms has also enabled the rapid spread of Hanfu culture, which has deepened people's understanding and positive impression of Hanfu culture, and indirectly contributed to the re-cognition of and emphasis on traditional culture Pang et al. (2021).

Subjects' negative attitudes towards K-pop culture may be attributed to the current geopolitical situation and the po-

litical relations between China and South Korea. During the early 2010s, K-pop's presence in China surged in popularity, particularly post-2012. Its distinctive style attracted a substantial group of China's youth. As noted by Chen (2013), this rise in popularity sparked a "Korean Wave" among Chinese youth, including music, TV dramas, and variety shows. It quickly gained favor and significant cultural influence. However, between 2013 and 2015, the geopolitical dynamics between China and South Korea encountered frictions, which in turn affected the reception of K-pop. Zhang (2014) highlighted that political situations can influence cultural exchanges between the two nations. The year 2016 marked a notable shift in public attitudes towards K-pop. The resistance to K-pop emerged amidst political events (Liu, 2016). This resistance to K-pop culture persists to some extent today.

In the experiment, participants exhibited longer reaction time when evaluating ACG culture compared to the other two subcultures. It happened for both positive and negative judgments. The long processing time indicates participant were not familiar with ACG comparatively. Kahneman's cognitive resource theory (1973) posits that familiar and automated processes do not consume significant cognitive resources, whereas novel or unpracticed information demands more cognitive effort, manifesting as longer reaction times. The longer reaction time for ACG may be attributed to a general unfamiliarity with this subculture. Zhang (2019) documented the rise of ACG culture in China around the year 2000, which surged with the development of Internet. While its popularity has reduced in recent years. K-pop, despite its early origins, has sustained its popularity in Asia and has even spread into European and American markets. The modern Hanfu subculture, which gained popularity around 2018, are still expanding the influence nowadays. Thus it explains the relatively lower familiarity and higher reaction time associated with ACG among the subjects.

The study also revealed that younger participants exhibited quicker reaction time and less negative evaluations of K-pop, ACG, and Hanfu subcultures compared to the older subjects. The generational difference is the potential cause for the disparity. Social media platforms provide young people with easier access to diverse cultural expressions. The frequency and depth of this exposure lead to a higher level of acceptance and comprehension of current popular subcultures among the youth than the older adults. In contrast, older individuals, particularly those in middle age, tend to focus more on current news, professional information, and other work-related content when using social media. They are less likely to be exposed to subcultural information through social media recommendations. Consequently, they may have less knowledge about these popular cultures. Conversely, they could form opinions based on bias or negative news reports, leading to more negative perceptions of ACG and K-pop

It's important to note that this study has some limitations. In the future, more studies could focus on exploring these aspects. Firstly, the age range of the subjects selected in this study was not broad enough. Future studies could expand the age range of subject samples to include individuals from all age groups. Secondly, due to the constraints of the experimental situations, only subjects from two regions in China were selected for this study. Future research could include more areas in China, as well as overseas regions. This allows a more in-depth cross-sectional study on nationality and cultural preferences.

5. Conclusion

This study employed the reaction time technique to explore the Chinese public's perceptions of three prominent Asian subcultures. This approach aimed to assess the subjects' intrinsic attitudes towards the three subcultures based on their reaction time and keypress responses. The data analysis revealed that Chinese participants demonstrated a deeper understanding and more favorable impression of Hanfu culture. Since Hanfu got shorter reaction time, higher positive scores, and lower negative scores. In contrast, participants generally held a less favorable view of K-pop, which received the highest negative ratings. Additionally, Chinese participants exhibited less familiarity with ACG culture, resulting in longer reaction times across all evaluations. Further analysis based on age indicated that younger individuals were more familiar with and held more positive evaluations of all three subcultures compared to older adults. This study not only addresses a gap in the current academic research on East Asian subcultures but also introduces new methodologies for research in this area. It contributes to provide updated perceptions of Chinese people's perceptions to subcultures and also deepens the understanding of East Asian culture.

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