

# Cross-cultural Study of Chinese and Japanese Users' Understanding of Emojis

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**Abstract:** This study explores the differences in emoji interpretation between Chinese and Japanese users, focusing on the influence of culture on digital communication. Responses from 25 participants were collected through a questionnaire distributed on Twitter and WeChat, which included personal information, social media use and understanding of emoji. The results of the study showed that although Chinese and Japanese users perceived certain emoji similarly, there were differences in the interpretation of other emoji. These results emphasize the importance of cultural context in emoji use and provide valuable insights into cross-cultural communication.

**Keywords:** Emoji; Digital Communication; Cross-cultural Research; Chinese Users; Japanese Users; Social Media; Cultural Differences.

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## 1. Introduction

During modern communication, as the global network is getting increasingly developed, people nowadays are getting more and more frequent to socialize online. Ever so gradually people start to use Emojis and use them more and more frequently, so emojis play an important role. Studies have shown that Emojis can not only express feelings directly, quickly and accurately, but also make up for the non-verbal information missing in text communication, therefore enhancing the emotional expression of online communication. This is a very important point in building and maintaining relationships nowadays, making digital communication more human [1]. The social aspects of emojis in digital communication were also investigated in another study [2]. The study was conducted through eleven efficient experiments to validate the association between emojis and social expressions, which has validity in emotional expressions and social responses. As a result, it can also be shown that emojis play a very important role in online communication, which can replace the communicator's realistic facial expression to communicate the message and enhance the depth and effectiveness of communication.

However, with the increasing use of Emojis and the development of the Internet, it is inevitable that we will also use Emojis for transnational communication. The research shows that despite the normative use of emojis across cultures, there are still differences in the use and understanding of emojis due to different backgrounds. As an example, a study found significant differences in the frequency of emojis use, context, and thematic associations between East Asia (China and Japan) and Western countries (the United States, the United Kingdom, and Canada) [3]. In addition, another research has shown that Western cultures are more inclined to use emojis with negative facial expressions, whereas East Asian cultures are more inclined to use emojis that represent medically relevant objects, such as syringes and pills. These studies can show that both the understanding and use of

emojis are deeply influenced by the cultural background.

The purpose of this thesis is to investigate whether the understanding and application of emojis is also affected by these small background details by analyzing whether the two countries are also affected by these small background differences, despite both being East Asian countries, geographically very close to each other and with extremely similar backgrounds. It shows whether the two countries will be affected by the influence of the cultural background.

In addition, this study also aims to improve cultural understanding, to understand the different understanding of emojis between China and Japan through this word test, and the results of this test can also help both countries to reduce cultural exchanges and misunderstandings, as well as to help the two countries to interact and understand each other in digital exchanges.

## 2. Literature Review

### 2.1. Origins and Development of Emojis

Digital emojis have gone through a remarkable development from the smiley face in the 1960s to today's stickers. The original smiley face was a yellow face with a grin, symbolizing positivity and optimism, and gradually spread into Western culture. By 1982, emoticons began to use keyboard symbols to mimic facial expressions, enhancing digital communication by providing non-verbal prompts similar to those used in face-to-face communication, helping to express emotions and intentions. In 1999, Joji Kurita (Shigetaka Kurita) introduced a more advanced and richer set of emoticons, representing not only emotions, but also objects and more. These emoticons, which are able to elicit neural responses similar to face-to-face based interactions, have become an important component of Computer Mediated Communication (CMC), helping non-English speakers to communicate on a global platform. These developments reflect a cultural shift towards richer and more intuitive forms of digital communication, showing the need for connection and expression in the digital age.

**Table1.** history of emojis

Name	Time of occurrence	Form	Content	Usage scenarios	Unicode	Examples
Smiley	1960s	Static	Single smiley face	Daily life	Without Unicode	😊
Emoticon	1982	Static	Various facial expressions	Daily life/CMC	Without Unicode	^^
Emoji	1999	Static	Facial expressions, abstract concepts, emotions/feelings, animals, plants, activities, gestures/body parts, and objects	Daily life/CMC	Own Unicode	😂
Sticker	After the 21 <sup>st</sup> century	Static/Animated	Texts, facial expressions, abstract concepts, emotions/ feelings, animals, plants, activities, gestures/body parts, and objects	Daily life/CMC	Without Unicode	👤

The growth of the symbols reflects a cultural shift towards richer and more visual ways of communicating digitally. They have become invaluable in communicating emotion and intent, displaying the human need for connection and expression in the digital age.

Emojis have quickly gained global popularity and have become an increasingly important element of digital communication. They cross language barriers and enable people from different speaking backgrounds to communicate effectively. The study suggests that emojis play a key role in mobile communication, specifically on China's WeChat platform, helping to convey emotional tone and reduce ambiguity in textual exchanges [4].

Although emojis have universal appeal, their interpretation varies from culture to culture, affecting the effectiveness of communication. Stark and Crawford noted that emojis carry cultural differences, which affect their interpretation, emphasizing the need for a deeper understanding of these symbols in different cultural situations [5].

### 2.2. Influence of Culture on Emoji Interpretation

Cultural context plays a key role in emoji explanation. Studies have shown that the same emoji may have different meanings in different cultural contexts, affecting the effectiveness of communication. For example, Rodrigues et al. developed the Lisbon Emoji and Affective Symbols Database, which provides criteria for emoji and affective symbols under different assessment dimensions, revealing significant differences in these symbols across cultures [6].

These difference can be due to cultural norms, values and communication styles. In the case of some cultures, emojis are used more conservatively, yet in other cultures they are an important part of everyday communication, influencing the reception and understanding of messages. Such cultural differences call for the consideration of socio-cultural factors when studying emojis.

Recently studies have provided valuable insights into the use and interpretation of emojis. For example, a systematic review by Bai et al. outlines the current state of emoji research and suggests future research directions [7]. Similarly, Zhou et al. explored the role of emojis in WeChat mobile communication, highlighting their importance in Chinese digital culture [4].

A study investigated the effect of smiley face symbols on recipients' emotions, demonstrating how these symbols affect recipients' emotions in digital communication. These studies highlight the importance of considering the cultural context when analysing the role of emoticons in communication [8].

### 3. Research Method



Figure 1. Touched emoji



Figure 2. The tears of laughter emoji



Figure 3. Angry deface emoji

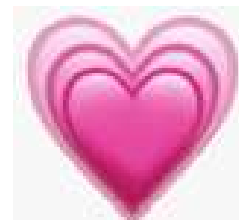


Figure 4. Heart emoji



Figure 5. Ghost emoji



Figure 6. Sleep emoji

### 3.1. Research Hypothesis

The hypothesis is that there are significant differences in the understanding of the same emoji between Chinese and Japanese users. In particular, I assume that the same emoji will attract different emotions responses and understanding in different cultural backgrounds.

### 3.2. Data Collection

For this survey I used a questionnaire designed to be spread through Twitter and WeChat. The first four questions of the questionnaire dealt with participants' personal information (e.g. gender, age) and social media use. The remaining questions focused on the understanding and use of emojis. I selected six emoji, three of which were facial emojis and three non-facial emojis. These six emoji include touched emoji, sleep emoji, ghost emoji, heart emoji, the tears of laughter emoji, and angry deface emoji, which have a high level of common usage and controversial.

The background information of the participants includes gender, age, and frequency of using social media. This information helps to understand the differences in respondents' understanding of emoji in different contexts.

### 3.3. Data Analysis Methods

For data analysis, I use a mixture of quantitative and qualitative analysis. Quantitative analysis will use statistical tools to perform both descriptive and inferential statistics on the questionnaire data in order to find out the significant differences in emoji understanding between Chinese and Japanese users. For qualitative analysis, respondents' open-ended answers will be used to gain an in-depth understanding of their emotional and cultural interpretations of different emoji.

## 4. Data Analysis

### 4.1. Descriptive Statistics

There were 25 participants in this experiment, including 13 participants from Japan and 12 participants from China. Eight per cent of the participants were male (one each from China and Japan) and the rest were female. The majority of the participants were between 19 and 20 years old (9 each), with an extra 4 participants who were 18 years old, and the remaining participants were 21, 22 and 25 years old (1 each). Out of the 25 questionnaires, only 1 person had never used Twitter, most of the other participants spent 2-3 hours per day on Twitter, and of the remaining participants, 24% spent 1 hour per day, 20% spent more than 5 hours per day, and 16% spent less than 1 hour per day.

On the question of positive, negative, or neutral emoji categorisation, the data showed that Chinese and Japanese participants' perceptions of heart emoji were very much the same and both participants believed that the tears of laughter emoji and angry deface emoji were negative emojis, but a higher proportion of Chinese participants than Japanese

participants had negative perceptions of the tears of laughter emoji as an emoji. For the neutral emoji, 72% of Chinese and Japanese participants perceived sleep emoji to be neutral, but there was a difference in the perception of ghost emoji, with 72% of Japanese participants perceiving it to be neutral, while only 48% of Chinese participants held this view. The six emoji were mainly used to communicate with friends, compared to heart emoji and Touched emoji which were used more frequently when communicating with elders and juniors.

### 4.2. Analysis of Differences

In terms of the location of emoji use, Chinese and Japanese participants showed a high degree of agreement, with almost all of them using emoji at the end of the sentence. A few participants would use them at the beginning of the sentence or in the middle of the sentence, e.g., 4% of Japanese participants would use ghost emoji at the beginning of the sentence, and 4% of Chinese participants would use heart emoji in the middle of the sentence.

For the definition of the same emoji, Chinese and Japanese participants' understandings were generally similar, but there were different interpretations on certain emoji. For example, for angry deface emoji, Chinese participants thought it represented devil and anger, while Japanese participants thought it represented mischief and anger. For ghost emoji, participants from both countries thought it indicated ghosting, but Chinese participants also mentioned the meaning of horror, while Japanese participants mentioned joking. Similarly, for the tears of laughter emoji, both Chinese and Japanese participants thought it indicated joking, but Japanese participants also thought it indicated embarrassment, while Chinese participants had the definition of happy.

In terms of perceived consistency of emoji among friends, Chinese and Japanese participants showed similar percentages. For the difference in perception of heart emoji, there was only 10% inconsistency in both countries. The emoji with the largest cognitive difference was angry deface emoji, with 50% cognitive inconsistency among friends, and the rest of the emoji had inconsistency rates between 30% and 40%.

Based on the above analysis, it can be concluded that Chinese and Japanese participants were more consistent in their overall definitions of emoji, but there were small differences in some specific emojis. In addition, there was a certain degree of inconsistency in the perception of emoji among friends, with angry deface emoji being the most controversial emoji.

### 4.3. Analysis of Correlation

For the difference between Chinese and Japanese perceptions of emoji is different based on the specific emoji. For instance, for heart emoji, both Chinese and Japanese participants perceived it as positive, but for the tears of laughter emoji, Chinese participants were more inclined to perceive it as negative. Twitter, as a globally used social APP, the length of time of using it affects participants' perception of emoji. (See table 2.) The data showed that the longer the participants used Twitter, the more consistent their perception of emoji was. Therefore there is also an effect of the frequency of Twitter use on the consistency of the participants' scenarios and interpretations of emoji.

**Table 2.** Analyzing the relationship between Twitter time of use and emojis definitions.

Frequency of Twitter use	Emoji definition similarity
Under 1 hour	0.7
1-3 hours	0.8
3-5 hours	0.85
Over 5 hours	0.9

## 5. Discuss

### 5.1. Results Interpretation

It can be drawn from the study that there are differences between Chinese and Japanese users in their understanding of emojis. Japanese users tend to decode the meaning of emoji in a more specific and careful way, for example, considering touched emoji to mean sadness rather than just a generalized emotion. Chinese users, on the other hand, viewed emojis more as a supplement to an emotion rather than an expression of a specific emotion. This difference may result from the different cultural backgrounds and language expressions between China and Japan. Japanese culture focuses more on the subtle expression of emotions, while Chinese culture tends to convey emotions through words and context.

The main influence mechanisms of cultural background on the understanding of emoji are in the areas of language, social behavior, and media use. Japanese users are used to communicating messages through subtle emotional expressions, which is reflected in their careful and nuanced understanding of emoji. Chinese users, on the other hand, are used to expressing emotions through text and context, leading to a broader understanding of emoji [9].

### 5.2. Theoretical Contributions

This study complements existing theories of cross-cultural communication by highlighting the importance of cultural context in digital communication by showing the differences between Chinese and Japanese users' understanding of emojis.

### 5.3. Real-world Application

In cross-cultural communication, it is recommended that the use of emoticons should take into consideration the cultural background of the other party and choose expressions with more generality and clarity in order to avoid misunderstandings.

Social media platforms and emoji designers should consider the needs of users from different cultural backgrounds and provide various and highly customized emoji options to improve communication effectiveness and user satisfaction [10].

## 6. Conclusion

This study reveals differences in emoji interpretation between Chinese and Japanese users, highlighting the influence of cultural context on digital communication. Japanese users tended to assign more specific meanings to emojis, while Chinese users used them more as a supplement to text. Some limitations of this study include the relatively small sample size and the possible bias of self-reported data, which may affect the generalisability of the results. The future study should expand the sample size to cover a more diverse population and explore the impact of evolving digital communication trends on emoji use and interpretation.

## References

- [1] Erle, T. M., Schmid, K., Goslar, S. H., & Martin, J. D. (2022). Emojis as social information in digital communication. *Emotion*, 22(7), 1529-1543.
- [2] Gesselman, A. N., Ta, V. P., & Garcia, J. R. (2019). Worth a thousand interpersonal words: Emoji as affective signals for relationship-oriented digital communication. *PloS One*, 14(8), e0221297.
- [3] Guntuku, S. C., Li, M., Tay, L., & Ungar, L. H. (2019). Studying cultural differences in emoji usage across the East and the West. *Proceedings of the International AAAI Conference on Weblogs and Social Media*, 13, 226-235.
- [4] Zhou, R., Hentschel, J., & Kumar, N. (2017). Goodbye text, hello emoji: Mobile communication on WeChat in China. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 748-759). ACM. doi: 10.1145/3025453.3025800.
- [5] Stark, L., & Crawford, K. (2015). The conservatism of emoji: Work, affect, and communication. *Social Media+ Society*, 1(1), 1-11.
- [6] Rodrigues, D., Prada, M., Garrido, M. V., & Lopes, D. (2017). Lisbon emoji and emoticon database (LEED): Norms for emoji and emoticons in seven evaluative dimensions. *Behavior Research Methods*, 50(1), 392-405.
- [7] Bai, Q., Dan, Q., Mu, Z., & Yang, M. (2019). A systematic review of emoji: Current research and future perspectives. *Frontiers in Psychology*, 10, 2221.
- [8] Lohmann, K., Pyka, S. S., & Zanger, C. (2017). The effects of smileys on receivers' emotions. *Journal of Consumer Marketing*, 34(6), 489-495.
- [9] Van Kleef, G. A. (2017). The social effects of emotions are functionally equivalent across expressive modalities. *Psychological Inquiry*, 28(2-3), 211-216.
- [10] Chen, Y., Yang, X., Howman, H., & Filik, R. (2024). Individual differences in emoji comprehension: Gender, age, and culture. *PLOS ONE*, 19(2), e0297379.