

Conducting Cross-Cultural Research on COVID-19 Memes

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Abstract

A cross-linguistic study of COVID-19 memes should allow scholars and professionals to gain insight into how people engage in socially and politically important issues and how culture has influenced societal responses to the global pandemic. This preliminary study employs framing analysis to examine and compare issues, actors and stances conveyed by both English and Chinese memes. The overall findings point to divergence in the way individuals communicate pandemic-related issues in English-speaking countries versus China, although a few similarities were also identified. ‘Regulation’ is the most common issue addressed by both English and Chinese memes, though the latter does so at a comparatively higher rate. The ‘ordinary people’ image within these memes accounts for the largest percentage in both data sets. Although both Chinese and English memes primarily express negative emotions, the former often occurs on an interpersonal level, whereas the latter aims at criticizing society and certain group of people in general. Lastly, this study proposes explanations for these findings in terms of culture and political environment.

1 Introduction

While memes have provided people worldwide with a unique way to engage in the pandemic discourse through expressing opinions and values, voicing complex feelings, and seeking out affiliations with others (Outley et al., 2020; Flecha Ortiz et al., 2021), a systematic examination of their use across cultures has not been subject to comparative analysis. The premise of this paper is that a communication-oriented study of COVID-memes will provide scholars and professionals (e.g., policy makers) with a route to understanding a key device many now use to engage with socially and politically important issues. These individual and collective narratives can be highly consequential for users’ mental health and emotional well-being (de Saint Laurent et al., 2021).

They can also impact public confidence and trust in the various preventive measures being implemented, as well as the institutions responsible for adopting them. Moreover, a comparative account of meme use across cultures should shed light on fundamental questions about the importance of culture in societal responses to the global pandemic. As (Kubba, 2020) convincingly argues, “with our attention focused on scientific and technological innovations in response to COVID-19, there is much missed with respect to cultural innovation during this time.”

This preliminary study employs a framing analysis to comparably examine the pandemic-related English and Chinese memes as collected from *memebase*¹ and *Dou Tu La*² website respectively. We analyze issues, actors and actors’ stances conveyed by the sample memes. Given the difficulty to distinguish between the geopolitical origins of online content, users employ language to establish borders while consuming such content. Therefore, viewing language as an analogue to culture is a feasible approach to cross-cultural research on digital content (Nissenbaum and Shifman, 2018).

2 Background

2.1 Operating the Concept of Culture

We operationalize culture, i.e., a frame of reference consisting of shared beliefs, values, and norms in varying degrees in a group (Hofstede, 1980), as national identity by focusing on the dichotomy of individualism and collectivism. National culture, which operates as a social control mechanism, influences actions of individuals and groups in times of crisis the pandemic (Kubba, 2020). This perspective is anchored in protection efficacy achieved within different cultures. Members of individualistic cultures (e.g., Americans) tend to prioritize

¹<https://memebase.cheezburger.com/>

²<https://www.pkdoutu.com/>

their own privacy and freedom, whereas those from collectivistic cultures (e.g., Chinese) often believe the willingness and capability of their community to protect themselves and therefore can achieve the massive social coordination (Logan, 2020).

Since Internet memes' articulation serves as both creations of groups and spaces for personal expression, this outlet allows users worldwide to express their opinions and shape the mindsets (Abidin, 2020; de Saint Laurent et al., 2021; MacDonald, 2021). Therefore, theoretically at least, the ways English and Chinese memes communicate the pandemic display similarities and differences due to different cultural contexts. However, this assumption has not been subjected to systematic research yet.

2.2 Internet Memes and the Pandemic

Since Internet memes convey visual arguments reflecting certain ideological practices (Nissenbaum and Shifman, 2018), people from different countries often employ them to express their values and opinions in the digital sphere. For example, digital anthropologists find that people in Italy use both serious and humorous memes to promote certain values and make fun of others; users in Trinidad and Chile tend to employ memes to comment on both social and personal issues; while Chinese who do not want to broadcast or share personal opinions in the offline domain often use memes to voice complex feelings (Miller). The aforementioned literature suggests that a discourse study of memes allows for a better understanding of differing public opinions of, and responses to, the global pandemic.

The literature on COVID-19 memes has primarily focused on their different uses in specific cultural contexts. The first line of research looked at how individuals employ these memes as a form of coping strategy. For instance, studies focusing on Spanish-speaking social media (Flecha Ortiz et al., 2021) and Kenya (Oduor and Kodak, 2020) identified meme use as collective coping. Research focusing on Singapore and Malaysia found that social media users often employ pandemic memes to enhance public awareness on specific issues, prescribe behaviors, and shape mindsets in the public arena (Abidin, 2020).

The second line of research has focused on meme use across social media platforms as social-political commentary. For instance, Reddit users and Indonesians on Instagram employ COVID-19

memes to criticize the incompetence of political leaders while highlighting those who either do or do not respect established measures (de Saint Laurent et al., 2021). Twitter users adopt pandemic memes to reclaim black power (Outley); Gen Xers use memes to claim that they can deal with the pandemic and to point out that other generations did not take self-isolation as seriously as they should have (MacDonald, 2021).

In contrast, cross-cultural research on COVID-19 memes has received less attention. One study (Chuanzhao et al., 2020) compared the perception of COVID-19 memes by young people in Russia and China, showing that both groups appreciate memes encompassing certain qualities (e.g., relevance, kindness, cheerfulness). However, Chinese respondents strive for orderliness and consensus, whereas Russians show a tendency towards polarization of opinion with a focus on individualism. The other study investigating COVID-19 misinformation conveyed by memes in China, the United States, and Iran, suggesting that pandemic-related misinformation varies significantly across countries depending on their particular culture, beliefs/religions, the robustness of freedom of speech and the power of citizens vis-a'-vis the government (Madraki et al., 2021). For example, lower rates of misinformation on Chinese social media are likely due to strict control by the Chinese government.

Building on the above-mentioned literature, we argue that COVID-19 memes convey important information regarding specific public's opinions; the ways these memes communicate the pandemic exhibit similarities and differences according to cultural context. To explore this premise systematically, this study sought to address the following research question: How do English and Chinese memes communicate the COVID-19 pandemic via the Internet?

3 Methodology

3.1 Data

We compared COVID-19 memes in two languages that can represent diverse cultures (Nissenbaum and Shifman, 2018): English and Chinese. The data comprise English memes collected on *memebase*³ and *Dou Tu La*⁴. These two websites can

³<https://memebase.cheezburger.com/>

⁴<https://www.pkdoutu.com/>

be seen as a mainstreamed space for meme curation, and therefore, constitute a suitable source for outlining the framing elements of the pandemic memes.

The first author manually collected the first 80 English memes presented on the webpage by searching ‘COVID memes’ and ‘pandemic memes’, and then selected the first 80 Chinese memes by searching two phases describing coronavirus memes (i.e., 冠状病毒表情包; 冠状病毒图片). In total, the data comprise 160 examples. This size is considered effective for a manual coding study (Kolbe and Burnett, 1991).

3.2 Method of Analysis

Framing analysis allows this study to identify communication patterns of pandemic memes across different cultures, because it communicates an event (such as the pandemic) through selection, exclusion, and emphasis (Entman, 1993). Moreover, frames highlight a certain piece of information about an event, making it more noticeable, meaningful, and memorable to audiences. In other words, framing analysis will allow this study to identify key information about COVID-19 as perpetuated in both English and Chinese memes. Specifically, the study focuses on three essential framing elements: 1) issues addressed by pandemic memes; 2) the actors involved in these issues (i.e. people either referred to in a meme or represented in indirect speech); and, 3) actors’ stances towards said issues (what idea, opinion, criticism, etc. is being conveyed).

We used a combination of content analysis and descriptive statistical analysis. We followed the principles of the grounded theory approach. In line with later developments in this approach (Nissenbaum and Shifman, 2018), the interpretative process also considered conceptual categories mentioned in the literature review section. Thus, the identified categories stemmed from previous studies and were in conjunction with new observations obtained in the course of analysis.

The first author and a research assistant used 10 examples that were not included in the data to practice coding. Next, we coded a sample set comprising 25 English and 25 Chinese memes to establish inter-coder reliability. The coding of issues conveyed by the sample memes was conducted by identifying specific topics based on content analysis, followed by collapsing and combining similar

concepts based on conceptual similarities to derive logical groupings. Actors involved in these pandemic-related issues were coded based on people and groups of people that were either referred to in the meme or that were represented in indirect speech (e.g., ‘ordinary people,’ ‘politicians,’ ‘medical workers’). Common objects as well as art objects (e.g., paintings) were coded in the category ‘other.’ Finally, stance was coded according to ‘positive’ and ‘negative’ based on Ekman’s basic emotions⁵. Final inter-reliability scores (Scott’s pi) were high: Issues (0.91), actors (0.93), and stance (0.82). The principal investigator coded the rest of the data, while consulting the research assistant to clarify, validate and comment on the main interpretations.

4 Findings and Discussion

The results of the research question support the working premise of this study; namely, that memes convey respective public’s opinions and that culture influences how people have been responding to the pandemic.

4.1 Issues Addressed by COVID-19 Memes

We found that both English and Chinese memes address issues relating to ‘regulation,’ ‘scarcity of supplies,’ and ‘work and study.’ ‘Regulation’ (i.e., rules/preventive measures issued by government institutions) accounts for the largest overall percentage of the identified issues in Chinese and English data groups (56% and 37% respectively, example 1 (Appendix: Figure 1) and 2 (Appendix: Figure 2)). This result aligns with (Norstrom and Sarna, 2021)’s study focusing on COVID-19 memes in Poland, showing that ‘bans and orders’ is the most prominent issue. This result can be explained by the framing theory: people across cultures tend to use internet memes to emphasize the most pressing challenges brought about by the pandemic (e.g., sheltering-in-place, social distancing). Also noteworthy is that the Chinese memes addressed the ‘regulation’ issue more often than did the English memes. This result can be explained by the fact that, compared to Western countries, China’s coronavirus crackdown has involved more surveillance and tighter controls (Kuo, 2020). As a result, the series of regulations issued and implemented by Chinese authorities have likely posed greater challenges for Chinese citizens than have

⁵<https://www.paulekman.com/universal-emotions/>

comparable government measures posed for people in the West.

‘Work and study’ is the second most common issue conveyed by the English memes (18%) (example 3 (Appendix: Figure 3)), followed by ‘viewing 2020 as a bad year’ (17%) (example 4 (Appendix: Figure 4)) and ‘vaccine’ (13%). In contrast, the first issue occurred less often in Chinese memes. This can be explained by the notion that people from individualistic cultures stress personal goals and matters ([Kubba, 2020](#)). Issues relating to bad year and vaccine are absent in the Chinese data. The second most prominent issue (i.e., ‘fighting the virus’ or showing their determination to crack down on the virus, example 5 (Appendix: Figure 5)) (21%) in Chinese memes suggests that people hailing from collectivistic cultures focus more on group goals. The absence of issues regarding ‘virus escalation,’ ‘politics’ and ‘unemployment and economy’ in Chinese data might be due to a lack of freedom of speech coupled with strict media censorship in China, since these issues relate to negative news and sensitive topics.

4.2 Actors Involved in the Issues

We identified that actors involved in both English and Chinese memes include ‘ordinary people’ (77% and 79% respectively) and ‘medical worker’ (1% and 3.8% respectively). Interestingly, we observed that while English memes often used celebrities (e.g., movie and TV actors and singers) to refer to ordinary people, Chinese memes largely employed popular Internet characters (such as ‘Panda Man’ or person with a panda-like head, and ‘a girl with mushroom-shaped head’) to refer to a particular actor. This result is consistent with ([Norstrom and Sarna, 2021](#))’s study focusing on COVID-19 meme use in Poland, which showed that ‘ordinary men’ is the most prominent actor. While the unique categories identified in the English memes are ‘politician,’ (9%), ‘media figures,’ (3%), and ‘animal’ (3%), those found in the Chinese memes are ‘authority,’ (4.9%), and ‘humanized virus,’ (9.8%).

While Chinese memes employed ‘medical workers’ to address the importance of adhering to regulations, English memes used this actor to reveal the escalation of the virus. The results can be explained by China’s cultural and societal norms, that is, the strong emphasis on harmonious relationships and cooperation among community members ([Ge-Stadnyk, 2021](#)). Furthermore, one com-

monly used actor among the English memes (i.e. ‘politician’) is absent in the Chinese data. That is, Chinese are taught, and expected, to respect and obey the country’s officials and are not allowed to poke fun at them through, for example, the use of memes ([Madraki et al., 2021](#)).

4.3 Stances Conveyed by the Pandemic Memes

We found both positive and negative emotions across the sample images. Negative emotions (e.g., anger, sadness, disappointment) were the most prominent stance found in English and Chinese memes (81% and 83% respectively). We thus have an overall negative skew. While the sample memes expressing positive emotions (e.g., amusement) were notably plain and direct, those conveying anger and sadness were nuanced and indirect. We observed that anger embedded in Chinese memes primarily occurs on an interpersonal level (i.e., reference to specific individuals, example 6 (Appendix: Figure 6)), whereas anger in English memes often aims at criticizing society and certain group of people in general (e.g., Gen Z, example 7 (Appendix: Figure 7)).

Drawing on Nissenbaum and Shifman (2018)’s work, we observed that sadness embedded in the memes conveys ‘sarcastic pity,’ ‘earnest fail,’ and ‘pathetic loss.’ Interestingly, meme users (especially Chinese) express sadness by depicting their own social embarrassments, daily struggles and failures (e.g., weight gain) (i.e., earnest fail, example 8 (Appendix: Figure 8)) and by manifesting pathetic loss (i.e., sadness is felt over trivial or mundane inconveniences). Although English memes also conveyed these nuanced emotions, they also often express sarcastic pity (i.e., berating people by sarcastically expressing pity over perceived failures or incompetency, example 9 (Appendix: Figure 9)).

These observations can also be explained through a cultural lens. As ([Kubba, 2020](#)) asserts, citizens holding individualistic worldviews tend to reject government interference and trust their immediate social networks. However, people from collectivistic cultures often find strength in bonding with both their own governments and the larger citizenry.

4.4 Theoretical and Practical Implications

First, this study broadens CMC literature by examining internet memes from a communication-oriented perspective. Second, while previous re-

search employed framing analysis to investigate communication in political and media discourse, this study has used it to examine user-generated content. Finally, this paper's results can inform future research aimed at better understanding how cultural and social environments influence people responding to crises.

Further, the empirical findings derived from this study can be useful for media scholars, psychologists, and policymakers who are interested in memes and online narratives. Based on this study's findings, one can assert that coronavirus memes not only reflect a harsh reality at the personal and societal levels, but also lend support for, or express strong disapproval of, specific belief systems and courses of action.

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A Appendix: Examples for COVID-19 Memes

Dating during quarantine be like

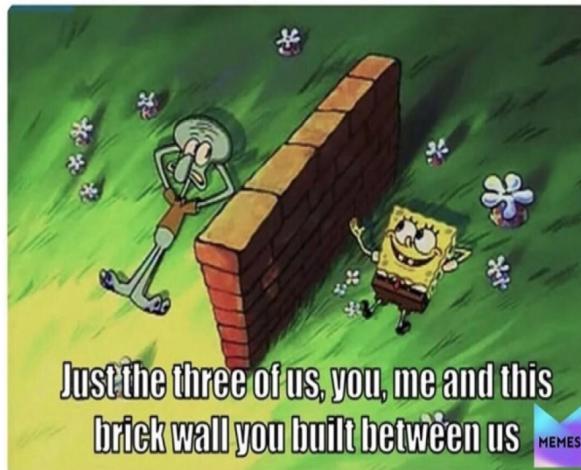


Figure 1: Example 1

class in 2100:
teacher; now that we learned 2019 lets learn 2021
student: what about 2020?
teacher:



Figure 3: Example 3



Figure 2: Example 2 - Text Translation: This is how I look at home.

Man walks into a bar, orders a Corona and 2 Hurricanes
Bartender says, that'll be \$20.20



Figure 4: Example 4



不去聚餐
最是健康

Figure 5: Example 5 - Text Translation: Not dining together is healthiest.

What Happened?

Me wondering how
America went from WWIII
to quarantine to Civil war in
less than half a year



Figure 7: Example 7

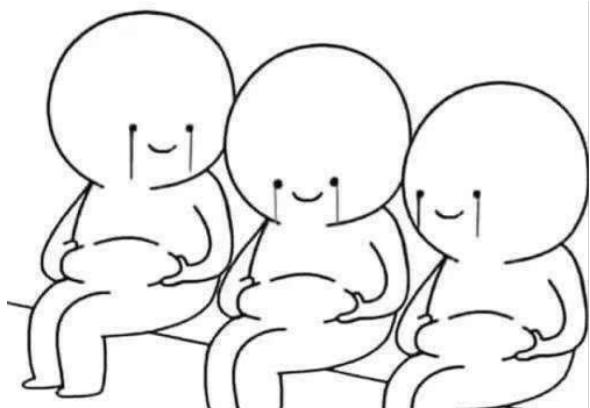


Figure 8: Example 8



Figure 6: Example 6 - Text Translation: I am going to poison you to death.



Figure 9: Example 9