

Exploring the Transmission Mechanism of University Students' Emotions in Online Public Opinion based on Social Combustion Theory

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Keywords: University students, Social combustion theory, Online opinion, Emotion transmission

Abstract: The development of information technology has facilitated public participation in short video communication. The openness, fragmentation and immediacy of short videos not only promotes the collision of different ideas and views, but also influences the fermentation of various kinds of netizens' emotions, and emotion communication is even regarded as the “wind vane of the real society” in the Internet field. In view of this, this paper selects university students as the research group, takes social combustion theory as the theoretical basis, and takes public crisis events as the background to study the mechanism of university students' emotion transmission under the Internet public opinion in the context of the New Crown Pneumonia epidemic.

1. Introduction

At the beginning of a crisis event, the audience's perception of the message is usually irrational - the message is often wrapped in the emotional rhetoric of the transmitter, driving the linkage of the recipients. At the same time, recipients are transformed into new transmitters, and communication patterns evolve from one-to-many to many-to-many, ultimately leading to a more group-based nature of emotion transmission in public crisis events.

Major public health emergencies are characterized by rapid spread, wide range of infection and difficulty in prevention and control, and are prone to provoke negative emotions among netizens in a short period of time, such as the new crown pneumonia in 2020 (Corona Virus Disease 2019, COVID-19). According to statistics^[1], as of June 2019, the scale of China's Internet users reached 854 million, the scale of mobile phone Internet users reached 847 million, and the proportion of Internet users using mobile phones to access the Internet reached 99.18%. The popular application and rapid development of the Internet has brought new problems and challenges to the control of online public opinion on public health emergencies. 2019 The State Internet Information Office issued the “Regulations on the Ecological Governance of Online Information Content”^[2], which clearly states that the content of online information is the main object of governance to build a good online ecology. Online public opinion is carried by online information reflecting online emotions, and the core of its control lies in the analysis of online emotion propagation mechanism and effective intervention. Therefore, the study of online emotion

propagation mechanisms and intervention measures can effectively guide online public opinion and reduce the harm of negative emotions to the Internet and real society.

2. Theoretical Foundations

2.1 Emotions and Their Transmission

The French social psychologist Gustave Le Bon, in his book *The Ravens*, pointed out the specificity of group emotions: “The mutual contagion of group emotions determines the choice of group behaviour; instinctive emotions are particularly contagious, while rational, dispassionate emotions play no role at all in the group.” The instinctive emotions and rational emotions mentioned in the book essentially involve two different modes of information reception - the former favouring the physiological level, i.e. a more purely direct response to stimuli, while the latter favouring rational cognition. In terms of human physiology, emotions arise earlier than cognition and are relatively independent. When faced with an external event that has just occurred, people often do not need the involvement of rational cognition to generate an emotional response, which provides a physiological basis for the transmission of emotions. The original events involved in public crises often have “highly emotional” discourse content, which is more likely to cause the public to spontaneously generate similar emotional experiences. This “deep emotionality” in the original topic provides the impetus for emotional contagion, and the recipients are swayed by their emotions, reducing their cognitive ability to analyse rationally and accelerating the reproduction and spread of crisis public opinion. The mechanism of “deep emotionality” in crisis events and the reasons for its influence on the public and the polarisation of groups deserves further investigation.

2.2 Basic Characteristics of Online Public Opinion and Online News Dissemination

On the Internet, the process of forming online public opinion is more rapid than that of the real society, with a wider spread and greater coverage, and it comes and goes without a trace. It can be said that the online world is a virtual opinion space that is more open and free than real life. When a major event occurs in society, public opinion circles tend to appear anywhere and everywhere they go, showing a state of starry-eyed spread across the four directions, and the existence of a large number of BBS forums on the Internet can be regarded as such a group of public opinion circles.

2.2.1 Transparency of Online Public Opinion

The transparency of online public opinion is closely related to the openness and anonymity of the Internet. The opinions and views expressed online by Internet users are presented completely openly and visually, rather than hidden opinion opinions hidden under mass public opinion, and even opinion groups, which only account for a minority, can be reflected visually online. This feature is therefore very useful for public opinion propaganda agencies to understand public opinion and grasp the direction of public opinion. News websites often use “news rankings” to count the most popular news stories over a certain period of time, making them a very intuitive way of reflecting the attention paid to news by internet users and a way of reflecting public opinion on the internet. Sina.com has a news rankings section, which includes general news rankings, domestic news rankings, international news rankings, social news rankings, sports news rankings, entertainment news rankings, military news rankings, financial news rankings and technology rankings. So the news rankings on the internet are one of the most visual means of reflecting public opinion.

2.2.2 The Superficiality of Online Public Opinion

Superficiality is the most important characteristic of online public opinion, which means that the majority of online public opinion is not a collection of well-considered and well-founded opinions, but an expression of emotions and their synthesis in the space of “absolute freedom”. In online communities, account management is generally adopted, with IDs as the user unit. Internet users can express their opinions in a relatively unrestricted environment. The freedom to express opinions in community forums is considerable, as the publisher does not have to worry too much about the consequences before speaking, and the ease of expressing opinions in forums is considerable, as the publisher can let his or her opinions merge into the vast ocean of opinions without complicated operations.

2.3 Social Combustion Theory

Social combustion theory is a theory that applies the principle of natural combustion to resolve social conflicts by making a reasonable analogy between social disorder, destabilisation and unrest and the phenomenon of combustion, and has been applied to social stability and the management of social crisis events. Based on the DBFS network rumour burning model^[3], the UDBFS conceptual model is further developed by considering the following conditions.

In the online public opinion of public crisis events, there are online users who are unknown to emotional information and known but do not show strong emotional fluctuations, and the emotional state of unburned users is increased in the DBFS model^[4]; after the online users who are unknown to emotional information are exposed to users with different degrees of emotional fluctuation expression, the transformation process of unburned users to users of other states with different emotional state transfer probabilities is set with different transformation probability^[5]; opinion centre personnel with a strong desire to spread emotions and difficult to transform in a short period of time, i.e. less likely to transform into users with inhibited communication status, users with unknown information about emotions and users with known information about emotions who do not show a strong emotional state, more likely to transform into users with inhibited emotional communication^[6].

3. The Formation of the Transmission Mechanism of University Students' Emotions in Online Public Opinion under Social Combustion Theory

3.1 Motivation Generation: Stage and Long-Term Emotions Overlapping and Resonating

Emotions can be divided into stage emotions and long-term emotions. The former is mainly emotions stimulated by a particular event, while the latter are mainly dispositions formed by the individual's environment over time.^[7]

Staged emotions are situational emotions that arise from major public health emergencies and are dominated by anxiety patterns. Izard defines 'emotion patterns' as two or more underlying emotions experienced simultaneously or rapidly as motivators and organisers of behaviour, rather than simply as responses to an assessment process. The perceptual-cognitive process of evaluation is itself guided by emotions.^[8] According to Bartha, anxiety is a necessary condition for the spread of online opinion, and online opinion is positively correlated with the level of anxiety of university students. Anxiety as an emotional pattern includes a variety of emotions such as fear, panic, sadness, anger, shame and guilt. The anxiety in this epidemic includes emotions such as fear, panic, sadness and anger.

Fear is an important part of the emotional pattern of anxiety, whereas the other emotions are

variable factors. Panic is again distinct from fear in that “panic is a worry based on uncertainty, panic involves a relatively small range of people, panic arises from a life pattern of information shortage, and fear arises from a pattern of shortage of perceptions of damage to life and health.” At the same time, the two are interconnected in that panic can further fuel fear, and fear in turn fuels panic. The uncertainty of the perception and outcome of an epidemic among university students leads to panic among university students. Under certain circumstances, panic can evolve into fear, accompanied by a variety of emotions such as sadness and anger.

Long-term emotions, also known as stock emotions, reflect the overall social mindset of a society at a certain period of time. Long-term emotions formed based on the social psychology of a social environment can be mediated by emotional online opinion and eventually transformed into stage emotions that lead to inherent social attitudes, thus influencing the dissemination and acceptance of emotional online opinion in major public health emergencies. Long-term emotions, as a kind of emotional energy, inherently breed the risk of emotional stagnation, which, if not channelled through normal channels, will be released in some alternative way under the stimulus of a certain situation.

3.2 Emotional Infection: from Individual Emotions to University Student Emotions

The process of spreading emotional online opinion is itself a process of spreading emotions and the transformation of individual emotions into college students' emotions, with emotional infection as the mechanism. According to Russell, there are six main types of individual emotions: excitement, joy, relaxation, anger, anxiety and sadness.^[9] Izard proposed the Differential Emotion Scale (DES), which considers emotions to be divided into positive, neutral and negative categories, with negative emotions including those caused by internal, external and situational factors. Negative emotions are generally considered to be more likely to be transmitted than positive emotions. In major public health emergencies, individual emotions are predominantly negative and dominated by the situation.

College student emotion can also be referred to as collective and social emotion. It is generated by individuals in the process of constant interaction with others. The process of turning individual emotions into university student emotions through audience interaction, i.e. the social transmission of individual emotions, must rely on internet-based university student communication. ^[10]In the field of communication, the emotions of the audience are often generated and shaped through the media, and emotional online opinion as a communication medium is the intermediary for the transformation of individual emotions into university students' emotions.

Individual emotions gradually spread to university student emotions, which in turn further strengthened individual emotions, a process of emotional infection. In this epidemic, panic among university students was a distinctive feature, and in the face of the sudden epidemic, panic spread rapidly and widely among university students. The characteristic of emotional internet opinion is that it acts as a medium to vent the panic and anxiety of university students through the construction of a situation, which in turn triggers the emotional infection of university students. The epidemic has affected the normal life of college students, and the spread of negative emotions among college students, coupled with the amplification effect of the Internet, has intertwined different emotions and provided a “breeding ground” for the creation of emotional Internet opinions. In the study of emotional infection, some scholars believe that individual emotions not only affect others, but can also affect college students internally, gradually expanding and strengthening through the continuous interaction of college members, such as panic emotions being perceived by the receiver and fed back to the sender, thus forming an emotional cycle. The emotional cycle, as a continuous cyclical process, leads to different members of university students easily forming a consistent social

perception and emotional state. Emotional online opinion not only promotes individual emotional arousal and emotional interaction in this process, but also plays an important role in the formation of emotional empathy among university students. The formation of university students' panic and anxiety cannot be separated from the daily and personalisation of emotional online public opinion.

3.3 Emotional Framework: from Perception to Feeling to Action

According to Goffman, a frame is an “interpretive schema” that university students rely on to organise or construct the practical experiences of human society and to form meanings that influence their behaviour. According to Entman, framing is essentially about selectivity and salience, the process of forming which involves selecting an aspect of the perception of reality and making it more salient in a communicative text. In the case of human communication activities, communication texts contain not only factual information but also subjective human emotions, so framing can not only highlight factual information but also construct social reality by highlighting implied emotions, thus facilitating university students' definitions of particular issues, causal interpretations, moral assessments or proposals for action.

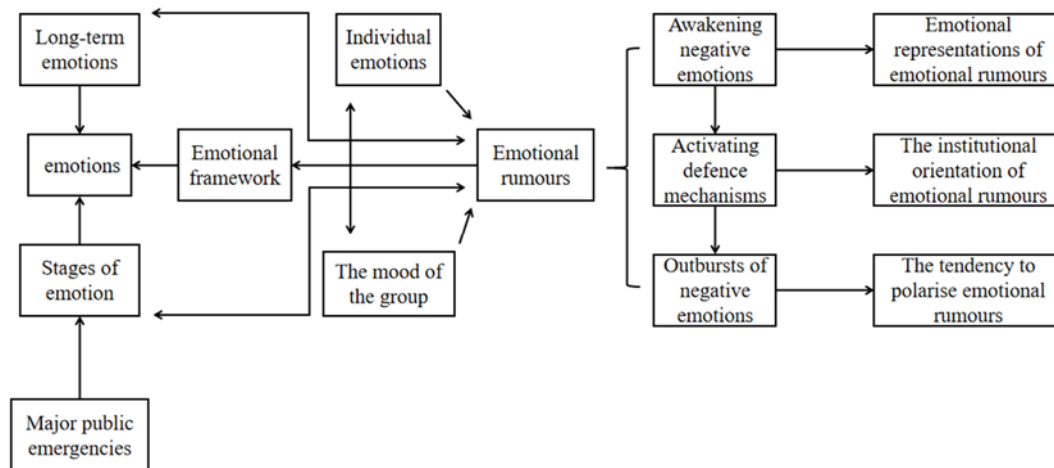


Fig.1 The Mechanism of Dissemination of Online Public Opinion and Its Evolution Mechanism

Emotional online opinion counteracts university students' existing emotions by framing them, thus shifting from weak emotions to strong emotions. In a broad sense, emotions include three levels: cognitive, feeling and action tendencies. First, on the cognitive level, emotional online opinion provides beliefs that are consistent with the audience's psychology, thus reducing the emotional stress caused by cognitive dissonance. “Beliefs” refer to the individual's or university students' perception of the present moment and their basic judgment of the current environment. At the beginning of the epidemic, university students believe that the situation is serious, that individuals are susceptible to infection and that their health will be seriously damaged, and this basic belief gradually forms the belief of gullibility to online public opinion; secondly, at the level of feelings, emotional online public opinion enables individuals to establish a connection with university students, and individuals or university students form a specific emotional valence to the current event, subject or thing, which is a positive or negative emotional reaction. At the same time, it creates an 'emotional climate', which forms part of the 'psycho-social' context. Emotional atmosphere is the product of repeated social interactions and constitutes the “emotional background” for the spread of emotional online public opinion; thirdly, at the level of action tendency, studies have shown that university students are more willing to forward emotional online public opinion than non-emotional online public opinion, and negative emotional online public opinion mainly

causes negative emotions among university students. Emotional online opinions can weaken the audience's rational thinking and turn to irrationality.

4. Evolutionary Mechanism of Emotional Online Public Opinion

Emotions are actually a kind of information that influences the decision-making judgments of university students. The process of spreading emotional online opinion is also known as the process of spreading emotions. Generally speaking, it occurs in a continuous cycle of “major public health emergencies - negative emotional arousal - emotional online opinion - increased negative emotions - re-inhibition”. Emotional evolution is divided into three main stages: negative emotional arousal, defence mechanism activation and negative emotional outburst. Negative emotions and emotional online public opinion show a linkage mechanism, forming a unique evolutionary mechanism.

4.1 Negative Emotional Arousal: Emotional Representations of Emotional Online Opinion

At the initial stage of major public health emergencies, university students are prone to panic psychology, and emotions spread rapidly through interpersonal transmission in the mode of university students' infection. At this stage, emotional online public opinion is mainly a substitute for satisfying the panic psychology of university students, and to a certain extent, it has a communication mechanism to reduce the common fear of university students. Emotional online opinion is in some ways an 'emotional exchange', which triggers personal opinions and emotional reactions from inciting moral comments. Most online opinions have a clear emotional purpose.

4.2 Defense Mechanism Activation: Institutional Orientation of Emotional Online Public Opinion

In general, the suppressed negative emotion is usually transformed into a new negative emotion, thus reinforcing the original negative emotion. In the case of the individual, the inhibited emotion is usually expressed as a more intense emotion when the emotional object is directed towards the self. When the self is protected through inhibitory mechanisms, emotions begin to be directed towards others, interactional objects, spheres, institutions, hierarchical systems, states and even national systems. As a result, university students display feelings of hostility, anger and alienation towards the social structures and cultures in which they live. The framework of defence mechanisms for negative emotions centres on “suppressing, reinforcing and transforming negative emotions that are not released.” When emotions are suppressed, they are usually reinforced or transformed. The main mechanisms of transformation are displacement, attribution, projection, sublimation and reversal. Displacement and attribution mechanisms convert to anger, projection replaces anger with less intense anger, and sublimation and reversal convert to positive emotions.

In this epidemic, panic and fear among university students dominated the socially dominant emotions, thus triggering an emotional defence mechanism based on attribution mechanisms. Based on this social psychology, the emotional online public opinion in this period showed an institutionalized orientation.

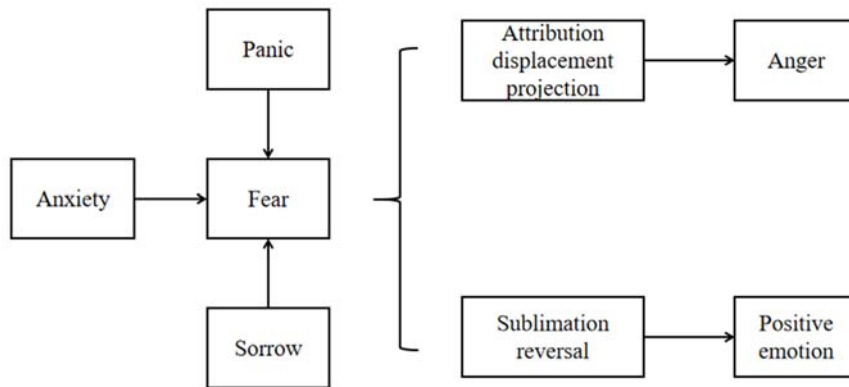


Fig.2 Activation of Defence Mechanisms for Anxious Emotional Patterns

4.3 Emotional Outbursts: the Tendency to Polarize Emotional Online Opinion

As the epidemic develops, university students use emotional online opinion as a medium for emotional catharsis and interaction under persistent negative emotional stress, but as time continues to increase, university students' emotional endurance reaches a threshold and negative emotions may explode at any time. In fact, before or after the defence mechanism arises, its motivational mechanism may also enter a new cycle of sudden outbursts into high-intensity anxiety, great anger and depression.

At this stage, besides being triggered by cognitive dissonance, emotional online opinions are also widely spread. The two types of emotional online opinions are intertwined, and they not only carry emotions themselves, but also create and amplify emotions, turning weak emotions into strong emotions. In the online environment, information dissemination is characterized by multi-node and multi-circle accumulation, and emotions are also of this nature. The flow and aggregation of different emotions allow them to change from weak to strong, and eventually form emotions shared by university students.

5. Conclusion

In major public health emergencies, emotional online public opinion accompanies the whole process of event development and is a public opinion phenomenon that cannot be ignored. Although existing research recognises the relationship between emotions and online public opinion, it only treats emotions as a mediating variable in the spread of online public opinion. In fact, in a crisis situation, emotion, as a mediating variable of online public opinion, is itself an important component of online public opinion, or even the core element of online public opinion. Emotional online public opinion, which is mainly spread emotionally, is extremely harmful and can easily lead to irrationality among university students. At different stages of an event, emotional online public opinion presents different states, so understanding and grasping its propagation rules can help guide and eliminate university students' anxiety and panic, and improve the country's ability to deal with major crisis events.

References

- [1] Bai Mei, Lu Xiaochen. Research on online opinion dissemination model based on users' emotional state[J]. *Chemometrics And Intelligent Laboratory Systems*, 2022, 12(03): 147-151+157.
- [2] Chen Lingjing, Hu Xuan. Corporate social responsibility, online emotional communication and brand value: a case

study based on Hongxing Erke[J]. *Journal of Commercial Economics*,2022,(03):94-96.

[3] Qi Yanli. *Social media public emotion infection and interactive participation in the Shanxi rainstorm*[J]. *Public Communication of Science & Technology*,2022,14(02):63-66.

[4] Permission. *Analysis of the communication effect of "emotion setting" in Internet buzzwords*[J]. *Journal of News Research*,2022,13(02):106-108.

[5] He Fei, Yang Sen. *A study on the mechanism of emotional rumor spreading and evolutionary mechanism--the New Crown Pneumonia outbreak as an example*[J]. *Contemporary Communications*,2022,(01):90-93.

[6] Cao Rui. *The value dilemma and practical progress of mainstream value communication of short video*[J]. *New Media Research*,2021,7(23):82-84.

[7] Xiang Yushan. *The generation mechanism of emotional communication in public crisis events*[J]. *Youth Journalist*, 2021,(21):54-55.

[8] Shi Hao. *Research on the online communication of red culture: a perspective based on emotional communication*[J]. *Voice & Screen World*,2021,(21):7-10.

[9] Wang Chaoyang, Yu Huilin. *Emotional preference effect in news short video communication--an empirical study based on Pear Video's social section*[J]. *Journalism & Communication Review*,2019,72(03):42-55.

[10] Sui Yan, Li Yan. *On the role of online language in the socialization of individual emotions*[J]. *Chinese Journal of Journalism & Communication*,2020,42(01):79-98.