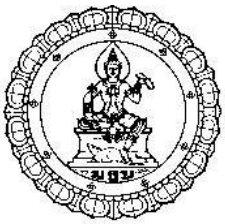

THE IMPACT OF SOCIAL MEDIA-CAUSED NEGATIVE EMOTIONS ON COLLEGE STUDENTS' RATIONAL THINKING AND OBJECTIVE JUDGMENT

YA XI HUANG

AN INDIVIDUAL STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF COMMUNICATION ARTS GRADUATE SCHOOL, CHINESE INTERNATIONAL COLLEGE, DHURAKIJ PUNDIT UNIVERSITY

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Certificate of Individual Study Approval to Master Student

Chinese International College, Dhurakij Pundit University

Master of Communication Arts

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Abstract

The purpose of this study is to investigate the impact of social media-induced negative emotions on rational thinking and objective judgment of college students. By analyzing the mean level of relevant variables in the college student population, the study found that negative emotions are widespread and their emotional nature may undermine rational thinking and objective judgment. Correlation analysis showed that there was a significant positive relationship between negative emotions induced by social media and rational thinking and objective judgment, suggesting that negative emotions may cause damage to cognitive processing and decision making. In addition, demographic variables such as gender, specialty, and duration of social media use also significantly influenced the aforementioned psychological aspects. The findings highlight the profound impact of social media on students' cognitive and emotional well-being and emphasize the need to implement educational strategies to mitigate the negative effects.

Keywords: Social Media-causued Negative Emotions;College Students;Rational Thinking;Objective Judgment.

Advisor's signature :

Advisor's name:→ Dr. Li-Wei, Wei

Date: 27 MAR 2024

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Dear Mentors, Academic Advisor, and Committee Members,

As graduation approaches, I find myself reflecting upon the past with a mix of nostalgia and gratitude. It seems like only yesterday that the prospect of completing my studies felt distant, yet time has flown by, and here I am, penning my acknowledgments. As I sit down to reminisce, my heart is filled with a myriad of emotions. The years we have spent together have been invaluable, and each challenge has contributed to my personal growth.

I am deeply grateful for the warm and kind-hearted individuals I have encountered during the most vibrant years of my youth. Their companionship has been the most precious gift in my life, and their guidance has been an invaluable compass on my journey. Every person's youth is marked by moments of uncertainty, and I am fortunate to have had so many hands extended to guide me through my own.

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invaluable. Our collaborative learning and discussions have enriched my knowledge immensely. The cooperative environment within the department has not only enhanced my professional expertise but also fostered a spirit of teamwork that will be a precious asset in my future career and life.

Furthermore, I must express my gratitude to my family and friends. Your selfless support and encouragement throughout my postgraduate journey have been instrumental in overcoming various difficulties and challenges. Your understanding, care, and love have been the driving force behind my success.

As the saying goes, "Even mountains and rivers that meet will part." We must always believe that everything happens for a reason. The gains and losses we experience are not worth dwelling upon, for flowers bloom and wither in their own time, and people come and go as they please. If we are powerless to change something, we must let nature take its course; if we are indifferent to what awaits us, we must adapt to whatever comes our way. Let us continue to grow, like trees, and may our future surpass our past.

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Yaxi Huang
Chinese International College
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Feb 2, 2024

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CHAPTER 1

INTRODUCTION

This section highlights the background and motivation of the study, the research statement, the purpose of the study, presents the research questions and the innovation and significance of the study, and explains the idea of the article. This section describes the background and motivation of the study, outlines its purpose, and presents the research questions. It also emphasizes the innovation and significance of the study, provides an overview of the structure of the article.

1.1 Research Background and Motivation

Social media provides users with personalized information and content, which largely forms a new information environment (Kümpel, 2022). Yang Yu (2019) points out that this environment accelerates the speed of public awareness of events and gradually becomes a central part of daily life. College students, in particular, are frequently exposed to news, social events, personal opinions and emotional expressions on these platforms. Gao (2012) emphasizes that online media are often taken out of context, making the search for credible information difficult. Sui and Li (2012) further point out that emotions exhibit contagious, cumulative, and instructive characteristics when transmitted in groups, and that social media provide new avenues for such emotions to spread, sometimes transforming personal emotions into social opinions with personal biases and irrational elements. In this regard, Tian and Zhang (2021) argue that negative emotions are easily aroused and rapidly spread on social media, especially short video platforms, demonstrating a resonant and circular mode of communication. These platforms vertically deepen emotional connections through empathic experiences, horizontally expand through the establishment of a sense of group belonging, strengthen communication through symbolic interactions, and utilize intelligent recommendation algorithms to facilitate dynamic sharing of content. This characteristic reinforces the power of emotional resonance and influences college students' rational thinking and objective judgment. Zhang (2021) suggests that in the face of information on social media, especially in the face of public emergencies, people need to have enhanced information recognition and judgment abilities to

prevent irrational speech expressions.

Social media is regarded as the main source of information for college students, who hold trust in the information shared on social media platforms (Pasko & Arigo , 2021; Zhu & Teng, 2022; Wang et al. 2023; Li, 2023), and who are forming their own values and ways of thinking (Zhao et al. , 2022). Further studies have shown that the widespread use of social media has had a significant impact on college students. A questionnaire survey of 5118 students in 220 higher education institutions across China conducted by China Youth Daily China Youth School Media showed that the vast majority of students surveyed use social media on a daily basis, with many of them using it for several hours a day. While social media has provided students with a convenient way to access information and communicate, it has also brought about a series of problems. More than half of the students feel that they spend too much time on social media, and nearly half of the respondents said that social media is full of information that is difficult to recognize as authentic, as well as the widespread dissemination of false and harmful information. In addition, a number of students mentioned that communication on social media is easily influenced by emotions, the risk of cyber violence, the difficulty of confirming the real identity of users, the insufficient protection of personal information and the information cocoon caused by algorithmic recommendations. (Cheng et al., 2022).Hogenboom's (2018) study further pointed out that negative emotions and news may affect the brain's perceptual ability, and there is a tendency to spread on social media, indicating that the impact of social media-induced negative emotions on college students cannot be ignored. And in Smith et al.'s (2018) study, they concluded that when college students encounter emotional information on social media, their level of rational thinking decreases significantly. This suggests that emotional truth may have an adverse effect on rational thinking. Wang (2012) pointed out that there is an essential difference between "media truth" and "objective truth". In the process of digesting media content, audiences' perceptions are shaped not only by external factors, but also by the constraints of their social backgrounds and personal attributes.

Therefore, this study will focus on the negative emotional communication behaviors induced by social media nowadays and explore their impact on whether college students can use rational thinking to make objective judgments. It is hoped that in-depth research will be conducted to understand the way college students

perceive and process emotional information on social media, as well as how emotional resonance shapes their thinking and attitudes. At the same time, this study will also explore whether college students have sufficient cognitive ability and rational thinking to assess and analyze the authenticity and credibility of the information they are exposed to.

1.2 Problem Statement

This study aims to investigate the impact of social media-induced negative emotions on college students' rational thinking and objective judgment. With the popularization of social media in daily life, college students are frequently exposed to information from different sources, including negative emotional content. This exposure to emotional information may affect their cognitive processing and decision-making abilities, thereby undermining rational thinking and objective judgment. Through literature review, questionnaire survey and data analysis, thisstudy explores how social media-induced negative emotions affect college students' emotional experience, rational thinking ability and objective judgment.

In the current digital era, social media has become an integral part of college students' daily lives (Zhou, 2023). Although social media provides a convenient platform for information acquisition and interpersonal communication, its negative impacts have gradually emerged, especially on the psychological health and cognitive processes of college students. In recent years, more and more studies have begun to pay attention to the impact of negative social media content on users' emotions, especially among the special group of college students. In a study by Liu et al. (2019), it was pointed out that the progress of social media is challenged by negative user emotions and passive behaviors. This is because in the process of using social media, users tend to experience a significant rise in anxiety when they encounter information overload and inaccurate information. Chen (2023) pointed out that in public health emergencies, social media became an important platform for the public to disseminate false information, and the "incitement" effect was more obvious, especially in the mood of anxiety and anxiety. College students are more likely to be misled by bad information due to their limited ability to recognize false information, and Johnson et al. (2020) showed that college students with enhanced rational thinking ability in high emotional resonance information are more likely to maintain objective investigation

and rationality in decision-making without being influenced by the opinions of others.

While previous studies have provided initial insights into the field, they have tended to be limited to the development of theoretical frameworks or the analysis of single behavioral outcomes. However, the need for a comprehensive cross-disciplinary analysis in the context of social media has not yet been adequately addressed, suggesting a clear research gap in this area of study. In light of this, this study aims to adopt a more comprehensive research perspective that focuses on exploring the interaction between negative emotions motivated by social media and rational thinking and objective judgment. In addition, the study will introducesocio-demographic variables, such as gender, subject specialization, social media use platforms and their duration of use, in order to delve deeper into the potential differences in these factors in the interaction of social media-inspired negative emotions, rational thinking, and objective judgments. Through this approach, a more comprehensive perspective will be provided to understand the impact of social media on college students' cognitive and affective responses.

1.3 Research Objectives

This study aims to investigate the effects of negative emotions induced by social media on college students' emotions, rational thinking, and objective judgment. Specifically, its research objectives include the following:

(1) To explore and assess the current status of the impact of social media use on college students' negative emotions, rational thinking, and objective judgment

(2) To explore whether there are significant differences in negative emotions, rational thinking, and objective judgments induced by social media among college students under different contextual variables (e.g., gender, major, length of social media use, etc.). This objective incorporates consideration of potentially influential factors with the intention of revealing differences between groups

(3) Determine the correlations between negative emotions, rational thinking, and objective judgment among college students in order to understand how these factors interact. This may help to reveal the combined effects of social media use on the psychological and cognitive states of college students

Through this study, we aim to provide targeted strategies and recommendations for universities to mitigate the possible negative effects of social media and to

promote the psychological health and cognitive development of college students.

1.4 Research Questions

This study analyzes the impact of negative emotions induced by social media on rational thinking and objective judgment of college students through a comprehensive analysis of past domestic and international literature, respectively from the research perspectives of scholars in psychology and sociology. In terms of demographics such as gender and major under the background variables, the correlation between the three variables is stated for the differences in rational thinking behavior of college students while combining with the past literature, which makes a relevant connection and paves the way for the depth of the next research questions. Therefore, this study will focus on the negative emotional communication behaviors induced by social media, aiming to study in-depth its impact on whether college students are able to use rational thinking to make objective judgments.

Based on the purpose of this study, the specific research questions are as follows:

(1) What is the current status of negative emotions, rational thinking and objective judgment induced by social media among college students?

(2) Are there any differences in negative emotions, rational thinking, and objective judgment induced by social media among college students in terms of background variables (gender, major, and length of time using social media)?

(3) What are the correlations among negative emotions, rational thinking, and objective judgment induced by social media among college students?

1.5 Significane of Study

This study has multiple implications and values, both theoretical and practical:

Theoretical significance:

(1) Although social media has been widely popularized, relatively few studies have been conducted on how negative emotions induced by social media affect the rational thinking and objective judgment of college students (Liu et al. 2019; Johnson et al. 2020; Chen, 2023) Several scholars have studied the study from a single dimension, without putting the three variables together. This study enriches and supplements the research on the mechanism of the influence of negative emotions induced by social media on rational thinking and objective judgment of college students.

(2) Broadening theoretical horizons: By exploring the influence of social media-induced negative emotions on college students' rational thinking and objective judgment, this study helps to expand the application fields of theories such as the affective intelligence theory, the dual process theory, and the spiral of silence theory, and enriches the applicability of these theories in the context of social media.

Relevance:

(1) Social media platform improvement: the results of the study may provide suggestions for improvement and optimization of social media platforms. Understanding the impact of negative emotions induced by social media on users' rational thinking and objective judgment, social media platforms can better manage information dissemination, improve the objectivity of information, and reduce the interference of emotional factors. This will help create a more fair, objective and responsible social media environment that provides higher quality information content.

(2) Improvement of education and training: A deeper understanding of the rational thinking and objective judgment of college students will help relevant education departments and educators provide better teaching strategies and training programs. Cultivating college students' ability to recognize and assess negative emotions induced by social media, and improving their rational thinking and objective judgment will help them use social media more rationally, independently, and responsibly, and improve their perception of the authenticity and credibility of information.

(3) Benefits for information consumers: The results also help social media users better understand the impact of negative emotions induced by social media on themselves. Users can learn to deal with social media-induced negative emotions more rationally, avoid over-emotionalization, and improve their ability to judge information objectively, thus better meeting the needs of information consumers.

(4) Social media platform governance: In-depth research on negative emotions induced by social media can help social media platforms and government departments better manage and regulate the flow of information on social media. This can help reduce the spread of false information, rumors, and extreme emotional information, and improve the social responsibility of social media.

Overall, this study will provide insights into the phenomenon of cognitive and

emotional resonance among college students when confronted with negative emotions induced by social media, provide guidance for society to cultivate more rational, mature, and responsible social media users, and also positively impact the improvement of social media platforms and the benefit of information consumers.

1.6 Definition of Terms

Negative emotions induced by social media:

Liu et al. (2018) identified the main negative emotional experiences encountered by social media users as boredom, anxiety, and depressed moods, as well as 12 other different negative emotional responses attributed to social media platform use.

Rational thinking:

Doherty (1996) Rational thinking emphasizes the abilities of logic, reasoning, and analysis, which together promote a deeper understanding of problems and the ability to discern their underlying nature, thus contributing to the development of superior decisions . Rational thinking also emphasizes thinking objectively, comprehensively, and deeply, and these ways of thinking can help people better understand all aspects of a problem and avoid one-sided, subjective, and shallow ways of thinking.

Objective judgment:

Objective facts can maintain their authenticity because they are not subject to subjective means such as human thoughts, feelings, tools, and calculations (Encyclopedia Britannica). It has been defined differently in different fields in past studies at home and abroad.Durkheim (1895) made a profound contribution to objectivity in social science research. He believed that social research should be as objective as natural sciences, pursuing the discovery of objective facts.Said (1978) discussed the subjective bias and cultural barriers in the research about the study of oriental cultures, emphasizing the pursuit of objectivity in the study.

1.7 Research Process

Based on an extensive literature review, this study constructed a theoretical framework covering the core variables of social media-induced negative emotions, rational thinking, and objective judgment, and proposed research hypotheses accordingly. The questionnaire star platform was used for data collection, and through systematic data analysis and hypothesis validation, the study aims to explore the

mechanism of the influence of social media-induced negative emotions on rational thinking and objective judgment of college students. The results of the study will provide strategic recommendations for college students, educational institutions, social media platforms, and society to increase their reference value. The research process is divided into the following stages:

Chapter 1: Introduction. This chapter synthesizes and analyzes related literature to explore the mechanism of action between the three core variables, defines the research background, motivation, problem statement, research purpose, questions, and their significance and value.

Chapter 2: Literature Review. By combing the literature on related variables, it clarifies the concepts, dimensions and measurement methods, and synthesizes the review of existing theories and research results, according to which the research hypotheses are formulated.

Chapter 3: Research Methodology and Design. Relying on the existing theoretical research results, referring to the mature measurement tools at home and abroad, scientifically designing the research questionnaire to ensure that it can effectively capture the demand for research content, and carrying out the questionnaire's target selection, distribution, data collection and organization.

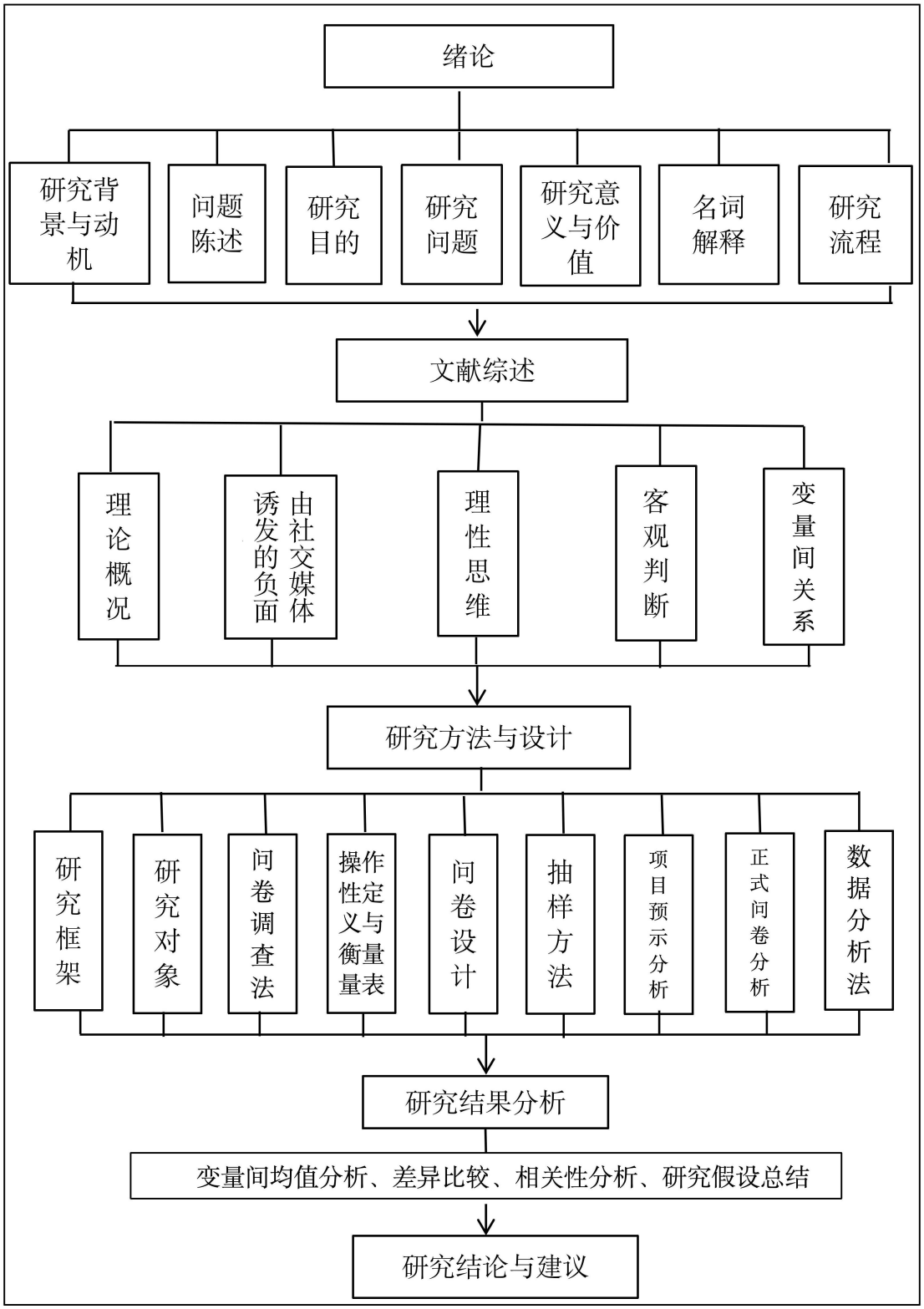
Chapter 4: Analysis of research results. Sample data were collected through the questionnaire star platform, and descriptive statistics, correlation analysis, and verification of the reliability of the questionnaire were carried out on the collected data using SPSS software, so as to obtain the conclusions of the study.

Chapter 5: Conclusion and Recommendations. Based on the results of data analysis, this study presents the key findings and corresponding recommendations.

The specific flowchart of the study aims to clearly demonstrate the design and execution steps of this study, which is presented in the form of Figure 1.1.

Figure 1.1 Research Process

Flowchart



Note: The data herein is sourced from a compilation independently conducted by the researcher in 2023

CHAPTER 2

LITERATURE REVIEW

2.1 Primary Theories of the Current Study

2.1.1 Emotional intelligence theory

Affective Intelligence Theory (AIT), was first proposed by psychologists Mayer & Salove (1990) and published in the same year. They researched that Affective Intelligence refers to an individual's ability to recognize, understand, and manage their own and others' emotions. This theory emphasizes that emotional intelligence is an important component of human intelligence, which has a profound effect on an individual's social interaction, emotional regulation, stress management, and decision-making abilities. In Goleman's (1995) published book, the popularization of the emotional intelligence theory was drastically promoted, allowing the concept of emotional intelligence to be widely recognized and accepted. Numerous researchers have applied this theory to a wide range of disciplines such as leadership, educational psychology, organizational behavior, mental health, and journalism and communication for in-depth research and analysis. (Mayer et al., 2004; Bar, 2006; Barzegar et al. 2013; Party, 2017; Fatima & Ali, 2023; Gu et al. 2023; Albarenque, 2024). At the time of MacKuen et al.'s (2010) study, behavioral tendencies associated with emotional states were found and it was noted that when people are in a state of anger they tend to look for perspectives that resonate with them, whereas those experiencing anxiety tend to take an open stance and engage in conversations more readily. Similarly, the study conducted in their Marcus et al. (2011) reinforces this idea by showing that anxiety can stimulate political conversations to be more open and thus increase participation. In summary, our present study will use the concepts based on emotional intelligence theory as a theoretical foundation to explain how college students understand and regulate negative emotions induced by social media through self-emotional awareness, self-emotional management, social awareness, and relationship management. To explore how college students' emotional intelligence, especially self-emotional management, can help them mitigate social media-induced negative emotions and maintain rational thinking and objective judgment. To analyze how college students use social awareness and relationship management skills to effectively identify and respond to others' emotions in social media environments, and

how this ability affects their rational processing of information and objective evaluation. And using a relevant questionnaire to measure college students' emotional intelligence and analyze the relationship between these abilities and their rational thinking and objective judgment.

2.1.2 Cognitive Experiential Self Theory

Cognitive-Experiential Self-Theory (CEST) was developed by psychologist Epstein. This theory seeks to explain two different models of individual decision-making and behavior, the rational system and the experiential system. Over the years, the scholar has continued to develop and refine this theory throughout his career, seeking evidence on the theoretical foundations, the interactions of the two systems, and their application to individual differences, emotions, and decision-making processes, respectively.Epstein (1994) introduced the basic concepts and theoretical framework of the Cognitive Experiential Self-Theory, which describes how the rational and the empirical systems work together to influence an individual's cognitive, emotional and behavior.Epstein& Pacini (1999) further explored the dual-process theory from the perspective of cognitive-experiential self theory, particularly how to understand and distinguish between the two information processing systems.Epstein (2003) discussed in detail the application of cognitive-experiential self theory to personality and social psychology, providing a comprehensive view of personality development and functioning. perspective.Kahn& Epstein (2011) provide a comprehensive overview of how cognitive experiential self theory integrates individual differences, including applications of the theory and assessment methods. These theoretical frameworks and findings will provide solid theoretical support for the current study that explores the cognitive and affective impact of social media on individuals.

According to CEST, the rational system operates intentionally and logically, is characterized by methodical, analytical, and verbal processing, functions primarily at the level of consciousness, and usually lacks emotion. In contrast, the experiential system operates rapidly and emotionally, is holistic, automatic and preconscious in nature, relies on associative, nonverbal processes. And closely related to emotion the rational system refers to analytical, logical, and relies on symbolic and abstract processing (Epstein, 1990, 1991, 1993, 2003). This is highly consistent with the concept of rational thinking. Rational thinking involves logical reasoning, critical

analysis, and evidence-based judgment, the very functions that characterize the rational system.

CEST emphasizes that these two systems operate simultaneously in most cases, but they process information and make decisions on different bases and in different ways (Epstein, 2003). Within the CEST framework, rational thinking can be viewed as a manifestation of the activity of the rational system, reflecting how individuals process information and make decisions through conscious, logical analysis. This way of thinking focuses on objectively evaluating information, weighing evidence, and deriving conclusions with the aim of reaching the most rational judgments and decisions. The empirical system, on the other hand, is more effective in making decisions quickly, especially when information is limited or time is of the essence. From the perspective of CEST, rational thinking is the ability of an individual to rely on the rational system for in-depth processing and analysis when faced with complex information. This ability is critical to understanding how information is processed in social media environments, how to assess the authenticity and credibility of information, and how to make rational decisions based on information. Particularly on social media platforms, people often need to sift through, assess, and decide what is credible from a large amount of information, which requires strong rational thinking skills for effective information processing and judgment. Therefore, the cognitive experience self-theory provides a theoretical framework to help explain and understand the role of rational thinking in individual information processing and how it affects people's behavior and decision-making in social media environments. This provides theoretical support and analytical perspectives for studying the effects of social media-induced negative emotions on rational thinking.

2.1.3 Spiral of Silence Theory

The spiral of silence theory was developed by German political scientist Elisabeth Noelle-Neumann in the 1970s. This theory focuses on the avoidance behavior of individuals in public environments towards expressing minority opinions, especially when they believe that their views are not in line with the dominant view. Through this theory she explains how individuals choose to remain silent out of fear of social isolation, thus exacerbating the dominance of the dominant opinion in the process of social opinion formation and making it more difficult for minority opinions to be heard. This theory has been widely used in a variety of fields such as

communication, political science, and social psychology.Simpson (1996) discusses how the concepts underlying the spiral of silence theory affect individuals' willingness to express themselves on public issues.Scheufle & Moy (2000) provide a conceptual review of the spiral of silence theory since its inception and an overview of the empirical research exploring different conceptualizations, operationalization, and treatment of important macro-variables.Shanahan et al. (2007) provide a summary of the research on the Spiral of Silence theory, which includes a discussion of themeta-analysis of the researcher's previous studies, as well as a summary of the results that have been accumulated since then. In his study, Minghui Dang (2017) found that the spiral of silence theory is still relevant in the context of news commentary.However, in the decentralized and label-free environment of the Internet, the dominant viewpoint is often conflated with the majority viewpoint. Thus, the spiral of silence theory is to some extent consistent with group polarization theory.Matthes et al. (2018) revisited the key assumptions of the spiral of silence theory, i.e., how perceptions of the opinion climate affect the expression of political opinions, and clarified the impact of the theory's relevant moderating variables. Nie and Lu (2021) studied the coping mechanisms and strategies of college students' sudden publicopinion events based on the spiral of silence theory. These studies provide insights into understanding the spiral of silence theory, especially in analyzing opinion expression behaviors in social media environments, and provide theoretical support for how individuals balance the conflict between personal expression and professionalism. By exploring this theory, research can reveal the dynamic process of information exchange on social media and how this process affects an individual's ability to make objective judgments and demonstrate professionalism.

2.2 Negative Emotions Induced by Social Media (NEISMS) Research

2.2.1 Conceptual definition of negative emotions induced by social media

Currently, accessing the Internet is no longer the privilege of an individual, but rather all people can access the Internet and post their opinions and thoughts about specific events or simply document their lives on social media. As a result, all kinds of people have joined the huge group of Internet users (Voillot et al., 2022). According to the 52nd Statistical Report on the Development of the Internet in China published by the China Internet Network Information Center (CNNIC), Internet users

are mainly concentrated in the youth group between 20 and 29 years of age (China Internet Network Information Center, 2023).Schwartz et al. (2022) study indicated that different Internet users in terms of gender, age, education level and social relations, etc. There are differences, and this structural complexity leads to a tendency for the content of Internet users' speech to be confusing and emotional as well. This makes their ideologies more receptive to the content posted on social media.Middleton et al. (2021) studied that college students are an extremely active group in community social activities and social media information dissemination. The viewpoint is also favored in the study of Shi Xuan and Sun (2022), which argues that the flourishing development of numerous social media provides college students with a channel to understand the outside world and a platform to speak out freely. In the context of the new era, Pu (2022) argues that contemporary college student netizens on social media show the new characteristics of obvious phenomenon of circling, strong dependence on the Internet, and enthusiasm for subcultures, which makes college students, as a group, more inclined to look for answers to relevant questions online. In the face of the intricate interweaving and superposition of various information on social media, college students have experienced significant changes in social media use and opinion expression compared to the past (Chen, 2023). The results of Dong's (2023) study also showed that there was a small spurt of articles on the use of social media by college students, indicating that with the development of social media, the attention of scholars in the academic world is growing and interest is increasing, and the impact of social media on contemporary college students has become a popular research focus.

The study of emotions first originated in foreign psychology and gradually expanded from psychology to sociology. In the work of Meng (2005), she pointed out that emotion is a basic psychological activity of human beings, which is often triggered by external environmental stimuli and internal physical state, and the brief but high-intensity psychological and physiological reactions will be expressed through verbal expressions and body language such as facial expressions. Emotions are contagious, cumulative, social, and instructive in communication content, and they have a significant impact on the understanding of the meaning of things and the effect of communication (Sui & Li, 2012). And in Quigley et al. (2014) psychology experiments, they researched and found that emotion elicitation refers to the

experimental means of eliciting specific emotions from subjects by asking them to recall clips, browse through pictures, listen to music, or watch videos. Lee & Lee (2022) also confirmed that emotional contagion refers to the expression, transmission, and sharing of emotions between individuals or groups. It stems from emotional responses, including assessment of and reaction to objective events, which ultimately elicits emotional and communicative responses from both the sender and the receiver.

As one of the main participants in social media, college students are easily influenced by false information and thus produce irrational judgments and behaviors due to their lack of rich social experience and emotional instability (Ying & Zhang, 2022). Wang & Meng (2021) also believe that because college students are not yet mature in their own minds, they are easily influenced by negative online public opinion, thus affecting the shaping of correct values. Zhao & Chen (2023) showed that individuals who are stimulated by potential dangers in the society will have a stress response, which triggers negative emotions such as fear and alertness at the emotional level. Cognitively, this is manifested as cognitive impairment caused by the brain sacrificing higher cognitive functions to cope with emergency situations, which in turn reduces the ability to recognize the truth or falsity of information.

Therefore, this paper focuses on whether the negative emotions induced by college students when using social media can be objectively judged using rational thinking, which has important theoretical and practical significance.

Table 2.1

Summary of definitions of emotional messages on social media

Scholars	Defintion
Savolainen (2015)	found that the prevalent negative emotions in public discussions of controversial topics covered envy, fear, anger, ridicule, disagreement, and name-calling, while sympathy, approval, and neutrality were more commonly expressed in positive emotions. Also, he found that when communicating using electronic media, pre-existing opinions and perceptions were more likely to be incorporated into the expression of positive emotions, whereas negative emotions were mostly simply emotionally transmitted.
Yang (2019)	Define social media emotionality as the behavior of people on social media who exhibit overdependence, aggregation, panic, and isolation due to emotional factors.

Khasawneh et al.(2020)	The indirect communication that takes place on social media can also subconsciously affect a person's emotional state.
Wang & Wei (2020)	In tweets about cancer on social media, tweets of joy, sadness, and hope are more popular than others, while tweets containing joy and anger are more likely to be retweeted.
Tiang、Zhang (2021)	A study of emotional communication in short video platforms found that short videos are full of distinct emotional colors, especially negative emotions are most prominent. These negative emotions spread through likes, comments, retweets and imitation shots, while finding empathy, creating group identity, symbolic interactions and algorithmic pushing are used in order to achieve a larger and wider range of dissemination.
Chu et al, (2021)	On social media, netizens' comments on negative news such as suicide news are emotional, irrational and violent.
Wang (2021)	The characteristics of new media platforms, such as speed, convenience and huge number of users, make emotions spread rapidly. At the same time, public emotions appear in a cycle-like mechanism on new media platforms, where the same emotions continuously trigger emotional resonance, which in turn creates a wider and more intense emotional radiation.
Zhang & Yu (2021)	Adolescents who overuse social media may be at risk for a variety of mental health risks, including conditions such as depression, anxiety, sleep problems, and internet dependence.
Li et al. (2023)	Defined as emotional information contained in social media texts that go beyond simple positive, neutral, or negative categorization to include more complex and mixed emotional categories.
Zhang et al (2023)	Negative emotions among social media users are mainly fatigue, anxiety, and depression, accompanied by undesirable behaviors such as lurking, ignoring and blocking interactions, and logging out or switching platforms.

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

2.2.2 Scale for negative emotions induced by social media

In the case of social media-induced negative emotions, the main test of the subject's emotional competence, emotional regulation involves the process by which an individual exerts influence over the nature of his or her emotions, the time at which they occur, the way in which they are experienced, and the way in which they are expressed. This process implies an ability to monitor, assess, and regulate emotional responses. (Gross & Thompson, 2007). Based on this, this study uses the Emotional Intelligence Scale proposed by (Law et al. ,2004), which will be used by the scholar to assess the emotional intelligence abilities of college students, which is a good fit with the object of this study. And the scale includes four dimensions of emotional intelligence including the ability to assess and express self-emotions, the ability to

recognize and assess the emotions of others, the ability to manage self-emotions, and the ability to use emotions. The first two of these dimensions are considered by this researcher to be good measures of the subjects' emotional intelligence abilities. The first dimension involves the ability to self-assess and express emotions, and relates to a person's ability to understand his or her deepest emotional states and express them effortlessly. People with this ability can perceive their emotions even in the presence of others. The second dimension relates to the recognition and appraisal of the emotions of others and denotes the ability to understand the emotions of others. Individuals who possess this ability are particularly sensitive to the emotions of others. The resulting scores indicate the level of personal trait emotion regulation ability.

2.2.3 Studies Related to Negative Emotions Induced by Social Media

In 1948 Lasswell elaborated on the five basic constituents of media communication and emphasized the complete sequence in the process of media information dissemination: "communicator → message → medium → receiver → feedback" (Lister et al., 2003). This theoretical model clarifies the roles and relationships of the elements in the media communication process and provides an important theoretical foundation for subsequent communication studies. Social media is an important channel for disseminating information, maintaining relationships and expressing opinions. While users are happy to post concise, fast, and casual content, this has resulted in information overload. In particular, the proliferation of clickbait has exacerbated the proliferation of substandard content, causing users to fall into information chaos and struggle to find what they really need (Li & Zhang, 2015). According to Tian (2016), the online opinion climate formed by collective memories, emotional frames, and public stereotypes fosters habitual skepticism. Emerging attitudes affect every member of the network, resulting in clusters of positive, negative and neutral ideological positions that exhibit group polarization. In social media, there is a flood of all types of information, including a large amount of emotional content. Social media emotional information refers to content with emotional overtones expressed through a variety of means such as text, images, and videos (Vordos et al. ,2020).Albahli (2022) states that social media users have become the most influential sources on their platforms, freely sharing their emotional expressions, moods, and experiences. These emotional messages have several

characteristics. First, they are usually real and immediate and carry strong personal emotions. Users can express their emotional state by posting tweets, uploading photos or posting videos. These messages are usually closely related to trivial or significant events in daily life. For example, a college student might share their joy after an exam or express their dissatisfaction with a social issue on social media. This authentic and direct expression of emotions makes these messages strongly appealing to other users because they are more humane and emotionally resonant. As a result, social media has become an arena for public emotions and perceptions, and is widely used to access information.

In studying the characteristics of social media emotions, Blanchette & Richards (2010) found that emotions play an important role in driving behavior and have an impact on individuals' behavioral judgments and decisions. In a study by Meng (2015), it was found that emotions not only drive cognitive activity, but also modulate cognitive processing and behavior, and interfere with decision making, reasoning, and problem solving.Savolainen (2015) found that when communicating using electronic media, pre-existing views and opinions are more likely to be incorporated into the expression of positive emotions, while negative emotions are mostly simply communicated as emotions. Su (2019) provides a detailed discussion of the phenomenon of "mourning culture" on the Internet and analyzes the possible negative consequences of this cultural trend, including the promotion of irrational expression, negative social attitudes, personal self-disorientation, and confusion of values. Zhang & Zhang (2020) analyzed the contagion process of negative emotions in online communities by constructing a model of emotional infection, and found that the flow restriction mechanism, isolation mechanism, epidemic prevention mechanism, and healing mechanism are accurately and effectively effective in the governance of negative emotions in community networks. Most of the above studies focus on exploring the characteristics of online emotions and their causes, and try to explore effective measures to guide negative emotions.

In terms of the process of emotional communication and its characteristics, Sui and Li (2012) point out that the social communication of emotions in the group era is characterized by the following features: weaker information but stronger emotions; the existence of positive sarcasm and negatively touted emotional expressions; and the rapid and widespread dissemination of information. Emotional cues can act

directly on a person's judgment and decision-making processes, and different levels of emotion have different influences on memories, attitudes, and ways of acting. (Kensinger, 2009; Kumar et al., 2015). Studies by several scholars have also verified that online rumors, advertisements, and social media marketing messages with emotional overtones inspire recipients to retweet and share more than more neutral content (Lai, Tang, & Xue, 2016; Berger & Milkman, 2012; Huang et al. 2016).Zoonen et al. (2017) found that significant negative effects include cyber aggression and malicious dissemination of misinformation. Liu et al. (2018) investigated that more and more social media users shift from active and positive engagement behaviors such as sharing, retweeting, and interactive communication to passive behaviors such as browsing without posting, forced communication, switching platforms, and exiting social networks, often accompanied by negative emotions such as fatigue and anxiety.

Under the perspective of social psychology, Zhu and Ma (2018) studied the interaction from emotion to action and proposed that emotional contagion follows a cyclical pattern from psychosocial states and emotions to attitudes, and then from attitudes to behaviors. Emotions originate from an individual's social psychology, which seeks expression under intrinsic motivation or extrinsic stimuli, and when people's emotions accumulate to a certain extent they will form stable attitudes, thus inducing their social behaviors. Yang (2019) defines social media emotionality as the behaviors on social media in which people show overdependence, aggregation, panic, and isolation due to emotional factors. These behaviors may lead to problems such as confusion in the dissemination of information and the creation of irrational blind behavior. Zhao and Liu (2020) viewed emotional communication can be regarded as the behavior of expressing, interacting, and sharing individual or group emotions and their related information. And Goldenberg (2020) explored the transmission mechanism and impact of social media emotionality from the perspective of digital emotional contagion.Wang & Wei (2020) stated that among the tweets about cancer on social media, tweets of joy, sadness, and hope were more popular than other tweets, while tweets containing joy and anger were also more likely to be retweeted.Khasawneh et al. (2020) showed that indirect communication conducted by social media can also subconsciously influence a person's emotional state. Wang (2021) argued that the characteristics of new media platforms such as speed,

convenience and large number of users make emotions spread rapidly. At the same time, public emotions on the new media platform will appear similar to the cyclic mechanism, the same emotions will continue to trigger emotional resonance, and then form a wider and more intense emotional radiation. Chen's (2021) study showed that different emotional intensities of online groups lead to different trends in the evolution of public opinion. Negative emotional activities tend to stimulate greater willingness and intensity of participation among online groups, thus accelerating the transformation of public opinion. Tian & Zhang (2021) found that short videos are full of distinctive emotional colors, especially negative emotions are most prominent through the study of emotional communication on short video platforms. These negative emotions spread through liking, commenting, sharing and imitation in content creation. They also spread further by seeking empathy, fostering group identity, engaging in symbolic interactions, and utilizing algorithmic amplification, all of which are designed to expand their impact and reach. In Internet emergencies, negative information tends to get more opportunities to spread, which leads to negative bias. (Liu & Liu, 2013; Tadić et al., 2017; Liu & He, 2019) study pointed out that online public opinion evolution, as a focus of attention in the field of Internet emergencies research, relies on observable indicators such as likes and retweets, and adopts mathematical modeling and simulation simulation methods to explore the law of spatial-temporal evolution of groups in the online environment.Chu et al, (2021) study pointed out that on social media, netizens' comments on negative news such as suicide news are emotional, irrational and violent. Zhao Yunze and Wang Huaidong (2021) discussed the objectivity and social practice of the existence of emotional communication, and argued that public emotions can participate in people's cognitive process and influence social behavior as collective memory.Hussain (2020) argued that social media emotionalization refers to the dissemination of posts on social platforms with strong emotional content, which tend to be provocative, extremist, and aggressive, that tend to evoke emotional responses and empathy. These emotional messages may relate to various aspects of politics, society and culture, as well as the expression of personal feelings and values. The dissemination of emotional information in social media may trigger problems such as social instability and group conflicts, and therefore needs to attract people's attention and vigilance. Based on this, Steinert (2021) argues that emotionally charged information posted on social media

platforms, which can be widely disseminated and shared through the functions of social media platforms, can influence the social emotional climate and changes in values. Such emotionally charged messages may encompass a wide range of emotional expressions such as happiness, indignation, fear, sadness, and other various feelings.Li et al. (2023), on the other hand, defines emotional messages contained in social media texts that are not simply categorized as positive, neutral, or negative, but contain more complex and mixed emotional categories. The above scholars, emphasized the importance of emotional coloring on social media and the impact of emotional messages on social media communication and influence.

In summary, there is a relatively rich body of research on social media emotions. However, apart from some literature that specializes in the classification of emotions, there are not many studies that specialize in a more detailed breakdown of negative emotions induced by social media for college students, as a group. This study will synthesize (Yang, 2019; Su, 2019; Hussain, 2020; Chen, 2021; Tian & Zhang, 2021; Li et al. 2023) a number of scholars' understandings of social media-induced negative emotions, which are conceptually defined as messages with negative emotions, such as anger, anxiety, fear, sadness, and isolation, posted on social media platforms. These messages can include text, images, videos, or other media forms designed to convey the author's emotional state or elicit an emotional infection in readers.

2.3 A Review of Research on Rational Thinking

2.3.1 Conceptual Definition of Rational Thinking

Rational thinking is a complex and multilayered concept involving key aspects of human cognition and decision-making. It involves the analysis of information, reasoning, judgment and decision-making, usually on the basis of facts and evidence, without the interference of emotions and subjective feelings. Different experts and scholars have different opinions on the connotation of rational thinking.

Epstein (1990) believes that rational thinking is a thinking process that requires a large amount of cognitive resources as analytical materials and tools, which is based on rules and words so as to form conclusions, and that the rational way of thinking is the foundation of the rational system. Feng & Peng (2015) pointed out that rational thinking refers to reflecting on things based on certain evidence and in accordance with logical reasoning.Witteman et al. (2009) argued that rationality refers to the

ability of people to use logic, reasoning, and analysis when thinking about a problem to analyze it objectively, comprehensively, and in depth so as to come to a reasonable conclusion.Toplak & Stanovich (2014) explored rational thinking and cognitive complexity in depth.Erceg (2019) argued that rational thinking helps individuals to better understand and evaluate information, which reduces the acceptance of and trust in incorrect or inaccurate information.Edwards (1954) Behavioral Decision Making study showed that people often systematically deviate from the normative standards of rational decision making. Kahneman (2013) explored two modes of thinking when people think and make decisions, fast thinking and slow thinking, revealing the relationship between emotional and rational thinking.

Paul & Elder's (2006) study focuses on critical thinking and cognitive bias in decision making, providing an in-depth analysis of critical thinking.Saks & Spellman (2016) examined the relationship between the law of evidence and witness testimony and rational thinking, emphasizing the importance of evidence analysis in legal decision making.Hussain (2020) argues that Rational thinking is a way of thinking that is based on facts and evidence and is not influenced by personal emotions, biases and subjective factors. It focuses on developing competencies such as logical reasoning, critical thinking and information literacy to make informed decisions in an environment of information overload and disinformation.

Hemming et al. (2020) noted that rational thinking contrasts with emotional thinking, which focuses more on emotions, intuition, and affective drives.Morris et al. (2020) showed that people learning to evaluate their thinking and produce more accurate thought patterns (rational thinking) can improve people's emotional states and behaviors. These scholars' studies provide a solid theoretical foundation for understanding the concept of rational thinking and the importance of rational thinking as it is used on social media, and will help us to better explore the impact of social media's emotionally charged messages on college students' rational thinking and objective judgments.

Summarizing the above discussion, this study will cite Witteman et al. (2009), Feng & Peng (2015) and Hussain (2020), who argue that rational thinking is an important cognitive ability that can help people better understand and cope with complex real-world problems. It emphasizes logic, objectivity and rationality, and seeks objective and sensible solutions when facing problems without being driven by

emotional impulses or subjective feelings.

Table 2.2

Summary of definitions of rational thought

Scholars	Definition
Epstein (1990)	Considering rational thinking, i.e., a thinking process that requires a large amount of cognitive resources as materials and tools for analysis, based on rules and words, so as to form conclusions, the rational way of thinking is the foundation of the rational system.
Witteman et al.(2009)	Rationality means that when people think about problems, they are able to use logic, reasoning, analysis and other methods to analyze the problem objectively, comprehensively and in depth, so as to reach a reasonable conclusion.
Stanovich (2014)	The psychological and cognitive science foundations of rational thinking are discussed in depth.
Feng & Pong (2015)	Rational thinking is considered to be the ability to reflect on things in a purposeful manner, based on certain evidence and in accordance with logical reasoning.
Hussain (2020)	Rational thinking refers to a way of thinking that is based on facts and evidence and is not influenced by personal emotions, biases and subjective factors. It focuses on developing the skills of logical reasoning, critical thinking, and information literacy in order to make informed decisions in an environment of information overload and disinformation.
Hemming et al. 2020)	Rational thinking is contrasted with emotional thinking, which focuses more on emotions, intuition, and emotional drives.
Morris et al. (2020)	People learning to evaluate their thinking and produce more accurate thought patterns (rational thinking) can improve their emotional state and behavior.

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

2.3.2 Rational Thinking Scale (RTS)

As Epstein (2003) puts it, if people process information in both cognitive and empirical ways, it is reasonable to suspect that there are differences in how efficiently people use each system. The important question is how to measure each system.

This study cites the Rational-Experiential Inventory scale (hereafter: REI), a

self-report measure developed by Epstein & Pacini (1996) based on the CEST, which consists of two scales, the Need for Rational Cognition (NFC) and the Experience of Intuitive Beliefs (FI) (Epstein et al., 1996; Pacini & Epstein, 1999).Epstein et al. (1996) The scale contains 31 items: 19 NFC items and 12 FI items. Since its introduction, the REI has been refined several times.Pacini & Epstein (1999) developed the most recent version of the REI, which contains 40 items. It includes ability and participation subscales (10 items per subscale) for both the rationality and experience scales. This version is an improvement over the older version; the limitations of the older version have been eliminated. In the old version, the scales did not have parallel content, the internal consistency of the NFC scale (α = .87) was higher than that of the FI scale (α = .77), there was a socialization element in the FI items but not in the NFC items, and there was an imbalance in the number of items on each scale as well as in the number of negatively and positively worded items (Pacini & Epstein, 1999).The REI has been widely used in recent years . Many researchers have attempted to adapt the scale to different populations.Berger, Lee, & Johnson (2003) found that among positive and negative interpretations of questions, males valued specific, basic interpretations (world population growth) more than more general, less specific interpretations. Females, on the other hand, tended to favor only cursory interpretations of negative explanations. Highly rational persons considernon-basic negative explanations of world population growth (i.e., less specific, more general) to be less important. When asked to give their own examples, rationals tended to offer more specific odds explanations for the negative explanation (world population growth.) Berger (2005) This study investigated how rational ways of thinking and the level of threat escalation (slight, moderate, and sharp increases in campus burglaries) affected judgments. Individuals with high levels of rationality showed less anxiety in their responses, made lighter judgments, and showed greater variability in their responses to different levels of campus theft. Further experiments confirmed that those with higher levels of rationality were more likely to attend to evidence that could reduce anxiety.Feng & Lee (2010) showed that thinking styles (rational and experiential) have an impact on the perceived quality of supportive information, and the quality of the information has an impact. In particular, people with higher levels of rationality were likely to respond positively to suggestions, whereas people with a more experiential thinking style perceived emotional

supportive information to be of higher quality.

However, some of the questions on the REI are repetitive and unnecessarily complex, and some scholars have attempted to make revisions based on the REI scales, such as Marks et al. (2008) who developed a measure for Australian adolescents called the "REI-A", which improved the wording of some of the original REI items (Epstein & Pacini, 1999) to enhance comprehension, based on adolescents' feedback from the pilot group interviews. The wording of some of the original REI items (Epstein & Pacini, 1999) was improved to enhance understanding. The revised measures included rational and empirical scales to make them easier for participants to understand. In Fartash's (2011) study on Iranian high school students using the adult version, nine items were deleted due to low factor loadings.In Shirzadifard et al.,(2018) study, the REI-20 scale was developed based on adolescents' information processing styles, which also retained only the rational and empirical dimensions.

Based on this, and considering that the present study specifically addresses aspects of rational or experiential thinking in the context of social media, the present study prioritizes items that directly measure these constructs, and for rational thinking: items assessing logical problem solving and analytical reasoning may be more relevant; and for experiential thinking, items measuring intuition and affective decision making may be prioritized. Also, by reviewing the literature on relevant psychometric analyses of the REI above, in order to identify items that are particularly strong or weak. Items that consistently show poor discrimination or low item-total correlation may be removed, such as items that are not clearly described, such as "I have no problems," "I am unreasonable under pressure," "Thinking hard for a long time gives me no satisfaction," and "Thinking hard for a long time gives me no satisfaction. "and other items with unclear descriptions as well as reverse questions and duplicate items will be selected for deletion. Identify items that may be conceptually similar or redundant. Retaining fewer unique items that cover the breadth of the rational and empirical domains can help reduce the length of the list without significantly compromising its construct coverage. It was also considered that certain dimensions of rational or empirical thinking are more directly relevant to the current research question, and items within these dimensions were prioritized, such as "I am good at reasoning on my own," "I often follow my intuition when deciding on a course of action." etc. to ensure that the revised list remains a valid and reliable

measure of the constructs of interest in the particular context of your study.

2.3.3 Studies related to rational thinking

For university students, rational thinking is particularly crucial. College students are in a critical period of knowledge acquisition and cognitive development, and they need to constantly make decisions, solve problems, and form independent ways of thinking. Social media, as a source of acquiring information, interacts with college students' rational thinking (Zhao, 2018). Rational thinking helps college students better process emotional information on social media, assess its reliability, and think critically about it when necessary.

Stanovich (2014) explored the relationship between rational thinking and college students' decision-making in his study. He noted that rational thinking is a key component of decision making through attentional control, logical reasoning, and knowledge application. On social media, college students may face pressure from emotional information, but rational thinking helps them to better process this information and reduce the influence of emotional decisions. Some related scholars' studies have focused on the impact of social media on college students' decision-making. (Wang & Li, 2020) also showed that rational thinking can help college students better distinguish real information from false information, thus reducing information misinformation. She found that emotional information on social media can stimulate college students' emotional resonance, but at the same time, it may also cause them to be emotionally disturbed in their decision-making. Therefore, rational thinking becomes crucial in this context to help college students assess the truthfulness and credibility of information more objectively. Similarly, the American Psychological Association has published an article on social media and decision-making. The article states that emotional communication in social media may influence the decision-making process of college students, but rational thinking helps them overcome emotional biases and better cope with these influences.According to Hussain (2020), rational thinking is important in identifying and evaluating the truthfulness, reliability, and trustworthiness of information when it comes to social media. Rational thinking can help people avoid being influenced by negative emotions induced by social media and make more rational and objective decisions.Haque et al. (2021) argued that emotional responses can be described as

direct, intuitive, and associative responses that regulate thought processes and judgments. On the contrary, cognitive responses are based on facts and rational thinking.

Therefore, based on the relevant studies of the above scholars and the cognitive-experiential self theory, the present study argues the importance of rational thinking in the face of negative emotions induced by social media among college students, and they provide strong evidence in support of the critical role of rational thinking in objective judgments.

2.4 Overview of Objective Judgment (OJ) Studies

2.4.1 Conceptual definition of objective judgment

The concept of objective judgment is a principle that has been widely discussed and applied in philosophy, psychology, science, journalism and communication. Many scholars and thinkers have contributed to objective judgment, and they have studied and discussed it in depth from different perspectives and fields. However, the concept of objective judgment can be traced back to the period of ancient Greek philosophy as an important principle of human thinking and knowledge acquisition. According to psychologist Beck (1976), objective judgment is an assessment based on objective facts and evidence rather than subjective emotions or personal beliefs. In an empirical study by philosopher Popper (2005), it was found that scientific theories should be falsifiable, i.e. able to withstand objective empirical observation and testing. In social science research, Nguyen (1993) mentioned that (Weber, 1904-1905) introduced the concept of value neutrality, which advocates that researchers should try to be neutral and objective when conducting social science research, and avoid intervening personal values into the research. In the field of journalism and communication, Lippmann, (1922) in his book Public Opinion, discussed the issue of stance and the importance of objectivity in news reporting, arguing that objective reporting is achieved through the accurate collection and presentation of facts, not through the subjective interpretation of the reporter.Schudson's (1978) history of journalism in the U.S. in-depth analysis, including the development of standards for objective reporting, states that objectivity is a standard that was developed during the professionalization of journalism in the early 1900s.Gans (1979) explores news values and objectivity in Deciding What's News, presenting a view of how journalism should reflect a plurality of viewpoints and remain unbiased.Kovach& Rosenstiel (2001) in

The Elements of Journalism, they emphasized that the first obligation of journalism is the pursuit of truth, which requires journalists to strive for objectivity and impartiality in their reporting. In journalism, objectivity is seen as a fundamental principle which requires that news content should strive to be neutral and fair to ensure that facts are presented accurately and without bias (Kovach & Rosenstiel, 2014).

In recent years, there are also a number of related scholars at home and abroad who have also defined it. Among them, Paul (1990) believes that objective judgment is the ability to make decisions or assessments based on facts and evidence. He believes that objective judgment should be based on quantifiable data and observable phenomena without the influence of subjective emotions or personal bias; Locke (1689) believes that objective judgment is the ability to transcend personal positions and emotions and assess according to the principle of universality and ethical guidelines. According to him, objective judgment should be based on impartiality, fairness and comprehensive consideration to avoid the interference of one-sidedness or personal interests; Bourdieu (1984) emphasized the influence of social factors on objective judgment. He argues that objective judgments are formed on the basis of social consensus, cultural background and historical conditions, and that the formation of objective judgments needs to take into account the social structure and power relations; Yang Jijian (1978) puts forward the concept of objectivism, in which he argues that objective judgments are arrived at through the scientific method and rigorous analysis without being influenced by subjective bias or emotion. He believed that objective judgments are important in research and decision-making, and emphasized the mutually complementary relationship between objectivity and subjectivity. Yin & Ma (2020) discussed the importance of the logical reasoning process of objective judgment.

Kahneman (2009) pointed out that intuitive judgment tends to rely on a great deal of experience and subconscious processing, which is fast but may be susceptible to personal bias and error. In contrast, objective judgments are more based on rational thought, logical reasoning, and factual verification, and can provide more accurate and neutral judgments; Stanovich & West (1998) discussed the differences between objective and intuitive judgments. They argued that objective judgment is based on sound rational reasoning and valid evidence, whereas intuitive judgment relies on intuition, emotion, and experience. Objective judgments are usually more reliable and

accurate than intuitive judgments; Hogarth (2001) argues that intuitive judgments can play an important role in a given situation, but still need to be supplemented and validated by objective judgments. Objective judgment can help us to correct biases and errors in intuition. He (2023) describes objective judgments as "judgments based on evidence and logical reasoning," emphasizing the importance of their being based on facts and evidence. In her study, Yang (2023) explored the importance of critical thinking among college students in online information dissemination. She emphasized the continuous use of critical thinking to deeply analyze and interpret all aspects of "viral information" to ensure that views, thoughts and ideas are not blindly accepted, but objectively judged through analysis, synthesis, evaluation, critique and reflection.

This study is based on the study of objective judgment based on negative emotions induced by social media, which involves the field in journalism and communication. In summary, in this study, the relevant definitions of objective judgment will be comprehensively cited (Kovach & Rosenstiel, 2014; Ho, 2023; Yang, 2023;) and defined as being an assessment and decision-making that will not be based on intuition and experience, but rather, is fair, neutral, and free of personal emotions and biases, taking into account the facts, evidence, and logical reasoning.

Table 2.4

Summary of definitions of objective judgment

Scholars	Definition
Paul (1990)	Objective judgment is the ability to make decisions or assessments based on facts and evidence. He believes that objective judgment should be based on quantifiable data and observable phenomena without the influence of subjective emotions or personal bias;
Stanovich & West (1998)	The difference between objective and intuitive judgment. They argue that objective judgment is based on sound rational reasoning and valid evidence, while intuitive judgment relies on intuition, emotion, and experience;
Kahneman (2009)	Intuitive judgment tends to rely on a great deal of experience and subconscious processing, which is fast but may be susceptible to personal bias and error. In contrast, objective judgments are more based on rational thought, logical reasoning and factual verification and can provide more accurate and neutral judgments;
Hogarth (2001)	Intuitive judgments can play an important role in specific situations, but still need to be supplemented and validated by objective judgments. Objective judgment can help us correct biases and errors in our intuition;

Erceg (2019)	Rational thinking is a way of thinking that emphasizes reason, objectivity, logic, and evidence, and it requires the involvement of reflective thinking and cognitive reasoning, not just algorithmic thinking and instrumental reasoning;
Ho (2023)	Describes objective judgment as "judgment based on evidence and logical reasoning," emphasizing the importance of its being based on facts and evidence;
Yin & Ma (2020)	The importance of the logical reasoning process of objective judgment is discussed.

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

2.4.2 Scale for objective judgment

IFLA (2020) suggests that when assessing the accuracy of information, the public should obtain information from multiple perspectives and sources, and utilize other media information for verification. Zeng et al. (2013) point out that given the differences in the literacy of online subjects, surprising judgments are inevitablybiased, one-sided, emotional, and may even be contrary to the goal of the investigation. Media Literacy, also translated as "media literacy", is the earliest concept to emerge, again with information as the main subject, referring to the media user's ability to select, understand, question, evaluate, create and produce, as well as discursive responses in the face of a wide range of media information. (Wu, 2016). This study aims to explore how to objectively assess and discern media messages in the context of negative emotions induced by social media. This research concern is closely related to disinformation-related research as it involves judging the authenticity of information. Therefore, the assessment and comprehension dimensions involved in media literacy are also informative. In this study, the Heiss et al. ,(2023) Social Media Information Literacy scale, hereafter referred to as SMIL, which is used to measure social media media literacy, contains six dimensions, including navigating, filtering, evaluating, understanding, comprehending, creating, and interacting. These dimensions are designed to provide a comprehensive measure of an individual's ability to process, evaluate, and contribute information in a social media environment. Considering that objective judgment involves assessing the truthfulness and reliability of information, the assessment and comprehension dimensions of SMIL are particularly suitable for measuring objective judgment skills. The assessment dimension reflects an individual's ability to critically scrutinize the authenticity of a post's content and the credibility of its source, while the comprehension dimension

involves the ability to integrate new information with existing knowledge. Therefore, the SMIL scale is used to support the measurement of how to make objective judgments based on the context of negative emotions induced by social media, particularly the assessment and comprehension dimensions. The filtering dimension reflects an individual's ability to manage and organize information content on social media, including what information is selected for posting, how content is arranged, and how messages are designed for specific audiences. Although this dimension focuses more on the management and presentation of information rather than directly assessing the authenticity of information, it is still informative for understanding how individuals communicate effectively on social media and their subjective approach to information. When discussing objective judgments, screening ability may indirectly influence how individuals select and present information, which in turn influences audience understanding and judgment. Therefore, the screening dimension serves as a secondary measure of objective judgment ability to help analyze individuals' information processing and presentation strategies on social media.

2.4.3 Relevant studies on objective judgment

Objective judgment plays a crucial role in the use of social media by college students. Social media, as a platform for high information flow, contains a variety of opinions, statements, and information, and college students need to have the ability to make objective judgments to distinguish between true and false information, to identify facts and biases, and to make informed decisions (Briñol et al., 2006). Objective judgment is important in several ways: on the one hand, college students need to be able to verify the truthfulness of information to avoid being misled or deceived (Pennycook & Rand, 2019). On the other hand, they also need to recognize bias in information and maintain independent thinking and judgment. In addition, objective judgment helps college students to control their emotions and avoid emotionally driven irrational behaviors and decisions (Hassell, 2017).

2.5 Correlation study between the three variables of this study

2.5.1 Studies of Negative Emotions Induced by Social Media &Rational Thinking

Social media has become an important platform for college students to obtain information and communicate, but the large amount of emotional information in it

may have an impact on their rational thinking and objective judgment. Previous studies have explored the characteristics of negative emotions induced by social media and their effects on audiences.

Lai & Tang (2016) found that emotional rumors were able to infect audiences through emotional communication, causing them to develop positive or negative emotions similar to those of the rumors. Under the influence of emotions, audiences lack rational analysis of information, which increases the spread of rumors. In addition, a study by Johnson & Jones (2019) found that emotional arousal leads to emotional bias in political decision-making, which is further exacerbated by emotional polarization.Pennycook & Rand (2019) in their study explored the effect of attaching warning labels to some information on the accuracy of the information in the dissemination of fake news and disinformation on social media. Haferkamp et al. (2012) explored the differences in self-presentation between men and women on social media to further understand how individuals behave and express themselves on social media. However, it has also been suggested that rational thinking can modulate the effects of emotional resonance to some extent (Kermarrec et al., 2020).Johnson et al. (2020) showed that college students who had improved rational thinking skills in high emotionally resonant messages were more likely to remain investigative and rational in their decision-making roles without being influenced by opinionated influence. In a study by Liang & Zhang (2024), it was shown that in the age of smart media, the trend of entertainment and fragmentation of video content leads to shallow reading and minimal engagement on the part of the audience. This sensory stimulation weakens the audience's perceptual ability and makes them more inclined to immediate rather than in-depth thinking, thus weakening their ability to analyze rationally and causing attention problems and over-indulgence.

ROLE THINKING IN DECISION-MAKING: Rational and emotional empathy play different roles in the decision-making process of college students. Rational thinking is often viewed as a control in decision making that can be used by individuals to help filter information and convey emotional messages of emotionally charged information. An idea supported in Jones & Brown's (2019) study. They found that college students who relied more on rational thinking in decision making could reduce the influence of emotions on them.

2.5.2 Studies of Negative Emotions Induced by Social Media & Objective Judgments

Research has shown that social media is closely related to objective judgment. With the rise of social media, information dissemination has become more rapid and widespread, and users receive a large amount of information. And the ability of objective judgment becomes the key ability to recognize, filter and evaluate this information. In the context of social media informatization, college students need to improve their objective judgment skills to accurately understand and respond to information in social media (Hassell, 2017).

2.5.3 Studies Related to Rational Thinking and Objective Judgment

In the current complex and changing social environment, objective judgment is closely related to rational thinking (Zhang et al. 2022). Rational thinking is the ability to think and make decisions based on rationality, analysis and reasoning, while objective judgment is one of the specific manifestations of rational thinking. Objective judgment relies on logical reasoning, factual verification, and a neutral stance to make rational decisions and judgments by analyzing and evaluating information (Briñol et al., 2006). However, research on rational thinking and objective judgment in recent years can be divided into two main categories: psychological and philosophical perspectives. Research from the psychological perspective focuses on revealing the cognitive mechanisms, developmental processes, and influencing factors of individual rational thinking and objective judgment. Research from the philosophical perspective pays more attention to the conceptual nature, value assessment and social ethics of rational thinking and objective judgment.

In research from the psychological perspective, some studies have shown that rational thinking and objective judgment are two interdependent cognitive factors that interact with each other in the cognitive process and jointly promote the improvement of people's decision-making and problem-solving abilities. Psychologist Kahneman's (2011) study pointed out that there are some differences between rational thinking and objective judgment, and that different individuals show different degrees of bias and predisposition in rational thinking and objective judgment.By describing heuristics and biases in psychology, Tversky & Kahneman (1974) revealed that when people make judgments in uncertain situations, they often with the help of heuristics (simplified cognitive strategies), which leads to specific biases and errors. They also present some common heuristics and biases associated with them.Gilovich et al.'s

(2002) comprehensive work explores the psychology of intuitive judgments, including a variety of topics such as inductive reasoning, judgment heuristics, decision-making biases, and stochastic cognition, and reveals a variety of limitations and common misconceptions in the human mind.Kahneman's (2011) book, Thinking, Fast and Slow" details two modes in human thinking: fast intuitive thinking and slow deep thinking. The book helps readers better understand heuristics and biases in human decision making by describing research findings in the fields of cognitive psychology and behavioral economics and provides suggestions on how to improve the quality of decision making.Slovic et al.'s (2002) chapter describes the impact of emotional heuristics on judgment and decision making. The authors discuss the important role of emotions in decision making and explore the application of affective heuristics to risk assessment, crisis response, and public policy making.

In studies from a philosophical perspective, many experts and scholars have emphasized the intrinsic connection and interdependence of rational thinking and objective judgment by examining the analysis of the two, arguing that rational thinking is the basis and prerequisite for objective judgment. (Immanuel Kant, 1781; Li, 2021) However, other researches hold a different viewpoint, believing that rational thinking and objective judgment are two independent cognitive processes, which are not necessarily connected with each other.

In summary, rational thinking and objective judgment, as important factors in the cognitive process of individuals, are highly controversial in terms of their nature, interrelationships, and influencing factors. Based on this, this paper aims to explore the nature of rational thinking and objective judgment and their interrelationship by analyzing the classification and review of existing studies.

2.5.4 Correlation studies and hypotheses between the three variables

Information on social media is often diverse and complex, including information from different positions and viewpoints. Some scholars believe that the college student group, with its active thinking and strong ability to accept new things, is an important part of the development of China's network society (Lou, 2011; Guo, 2014; Huang, 2015; Su, 2019; Li & Li, 2021; Sun & Song, 2022). As a high-quality group among Internet users, college students should play an exemplary role in the construction of the network information environment and contribute to the

construction of a clear cyberspace. However, while the network provides convenience, it also brings certain obstacles to the overall development of the college student group. Due to their lack of social experience and more unstable emotions, college students are easily influenced by false information, leading to misconduct in network information exchange. (Lai, 2023; Qu et al., 2023) Therefore, when dealing with negative emotions induced by social media, we should maintain rational thinking, seek evidence from multiple sources, and try to obtain multiple sources of information to gain a more comprehensive perspective, so as to make objective judgments.

Based on the connection between the three, the following research hypotheses are proposed:

H1: The mean values of the three variables of negative emotions, rational thinking, and objective judgment induced by social media are moderately high among Chinese college students.

H2: The effects of social media-induced negative emotions, rational thinking, and objective judgment vary according to the background variables (gender, major, platform of social media use, and time of social media use).

H3: There is a correlation between social media-induced negative emotions, rational thinking, and objective judgment among Chinese college students.

CHAPTER 3

METHODOLOGY

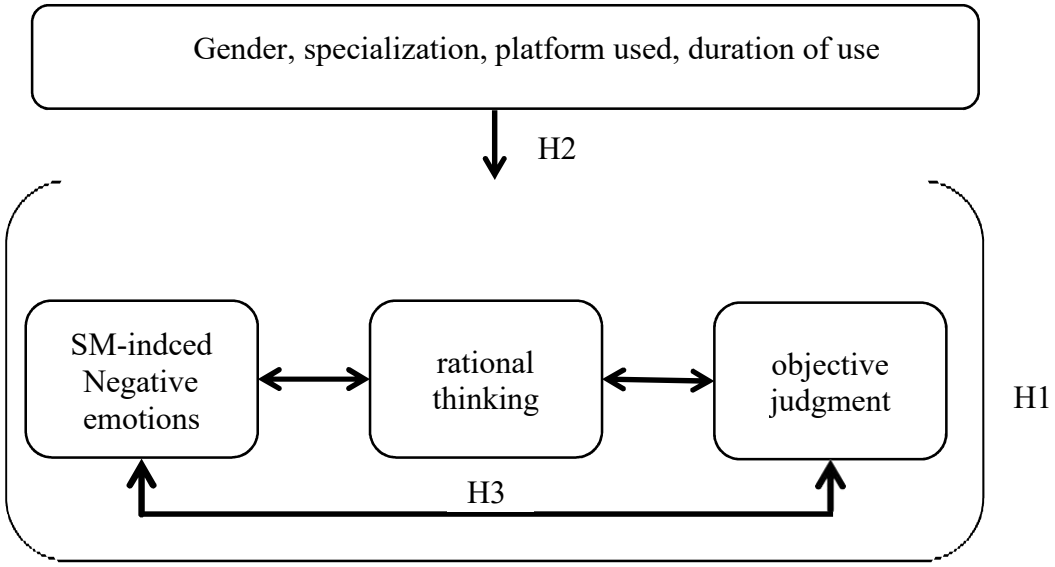
This chapter mainly describes the operational definitions and measurement methods of each variable studied in this paper, and explains the sources of the scales selected for the variables. At the same time, the measurement scales suitable for this study are formed after optimizing and refining the relevant scales with the characteristics of this study itself. This chapter also specifies the scope of data collection, the selection of research subjects, and the analysis methods, etc., to further analyze the applicability, comprehensiveness, and authenticity of the sample, to ensure that the questionnaire is real and effective, and ultimately to provide a reasonable explanation for the literature review and the hypothesis.

3.1 Research Framework

In the initial preparatory phase of this research endeavor, a comprehensive review of existing scholarly literature was conducted. This extensive survey served as the foundational bedrock upon which the present study is predicated. Drawing upon the principles of attribution theory, this investigation delves into the nuanced dynamics between social media's emotive content and its influence on the critical thinking and objective decision-making processes of college students. To elucidate this intricate interplay, a theoretical framework was meticulously constructed. This framework not only encapsulates the theoretical underpinnings derived from the pertinent literature but also significantly advances our understanding by meticulously examining the interrelations among the identified variables. Such an exploration is instrumental in refining and augmenting the application of relevant theories when confronted with the emotive nature of social media content. For a comprehensive visual representation of this framework, the reader is directed to Figure 3.1, which delineates the proposed research model in detail.

Figure 3.1

Research Framework



Note: This figure demonstrates the relationship between the study variables.

3.2 Participants

This study takes Internet users of college students at a comprehensive university in the southwest area as the research object. The concept of Internet users is relatively broad, and this paper collectively refers to users who use social media as Internet users in the context of the online environment of social media. The definition of college students in this study is in line with Article 68 of the Law of the People's Republic of China on Higher Education, which covers students enrolled in colleges of higher education, colleges of higher education and higher vocational schools, as well as students enrolled in higher vocational schools and adult education institutions. Articles 15 and 16 of the Law stipulate that higher education is divided into degree and non-degree education. Degree education is divided into full-time education and part-time education, including specialized education, undergraduate education and postgraduate education. Therefore, according to the difference in the mode of training, university students can be divided into full-time students and part-time students; according to the difference in the level of qualifications, they can be divided into specialized students, undergraduate students, master's degree students and doctoral students.

Given that most part-time students and doctoral students have already integrated

into society and possess a certain degree of social experience, their thoughts and behaviors are relatively mature. Faced with negative information on social media, individuals tend to tend to think rationally and are less likely to make irrational consumption decisions. At the same time, a comprehensive university does not offer a master's degree program. Therefore, the term "college students" in this paper mainly refers to full-time college students and undergraduates, and is limited to students between the ages of 18 and 23. It does not include those who already have a university degree. The research of some related scholars found that due to the characteristics of college students who are not deeply involved in the world and emotionally unstable, they are easily influenced by false information, thus forming irrational judgmental behaviorsYing et al. (2022).In the study of Erceg et al. (2019), it was shown that college students were chosen as the object of the study because they are representative, and their cognitive ability and way of thinking are universal. are generalizable and therefore the findings can be generalized to a wider population. In addition, college students usually have a higher level of education and cognitive ability, so their cognitive abilities and ways of thinking are also more representative (Zhao, Yuhan, and Yu, Lin,2014).Haines et al. (2015) evidence that there are differences between women's and men's online activities on social media and that gender norms influence the way women and men interact on social media.Skogen et al. (2022) study states that the article uses factors such as length of social media use, age, and social platforms as contextual variables because these factors may influence an individual's experience and experiences on social media.McLuhan categorizes media into two groups: cold media, which is low-definition and requires a high degree of user engagement, and hot media (McLuhan, 2011). In the age of smart media, the improvement of network speed and stability has pushed the media to continuously break through the limitation of clarity, so that hot media, mainly video, has become the core way of information expression. Short videos, vlogs and live broadcasts have become people's preferred pastime in fragmented time with strong audio-visual experience and intuitive emotional packaging. As of June 2023, the number of online video (including short video) users in China has reached 1.044 billion, accounting for 96.8% of the total number of Internet users. In this study, different majors were selected as background variables because students of different majors may have differences in their studies, life, employment, etc., and these differences may affect

their cognitive assessment judgment (Gao et al. 2022).

A total of 900 questionnaires were distributed for this survey. During the initial screening process, the collected questionnaires were reviewed to eliminate invalid responses, such as cases where respondents all chose the same option. In the end, 853 questionnaires were recognized as valid with a valid recovery rate of 94.78%.

In this study, the basic information of the respondents included gender, discipline major, social media use platform, and social media use time.

Out of the 853 valid questionnaires, the characteristic statistics are shown in Table 3.1.In terms of gender, the number of male respondents is 313 (36.7%) while the number of female respondents is 540 (63.3%). Therefore, the proportion of male respondents is lower than that of female respondents, which is due to the imbalance of the ratio of male and female students in this university; in terms of subject specialties, there are 455 respondents in Arts, accounting for 52.2%, and 408 respondents in Science, accounting for 47.8%, which is higher than that of Science, but there is not a big difference between the two; in terms of the platforms used for social media to obtain information, there are 63 respondents in Microblogging, accounting for 7.4%, 378 respondents in Jittery, accounting for 44.3%, WeChat 223, 26.1%, QQ 101, 11.8%, and other platforms 88, 10.3%. This means that respondents' social media platforms are most popular, with WeChat being the second most popular; in terms of the daily use time of social media platforms, 28 people, or 3.3%, chose less than 1 hour, 135 people, or 15.8%, chose 1-2 hours, 181 people, or 21.2%, chose 2-3 hours, and chose 3 hours, or 509 people, or 59.2%. More than 509 people, accounting for 59.7%, indicating that the majority of respondents use social media for more than 3 hours a day.

Table 3.1

Sample Characterization Statistics

Demographic Variables	Category	N	Percentage
Gender	Male	313	36.7
	Female	540	63.3
Profession	Arts	445	52.2
	Science	408	47.8
Social Media Platform	Weibo	63	7.4
	Tiktok	378	44.3
	WeChat	223	26.1

	QQ	101	11.8
	Others	88	10.3

Table 3.1

Sample Characterization Statistics (continued)

Demographic Variables	Category	N	Percentage
Social Media Use Duration	Less than 1 hour	28	3.3
	⩾1～＜2 hours	135	15.8
	⩾2～＜3 hours	181	21.2
	⩾3 hours or more	509	59.7

*Note***:** *The data herein is sourced from a compilation independently conducted by the researcher in 2023*

3.3 Questionnaire Survey Method

The research idea is to first determine the concepts of negative emotions induced by social media, rational thinking and objective judgment used in this paper through the literature study, and to find the deficiencies in the current research. In response to these deficiencies, targeted additions were made to find what is suitable for the research direction of this paper. This researcher adopts the method of theoretical analysis to analyze the current impact of negative emotions induced by social media on college students' rational thinking and objective judgment, and puts forward the theoretical hypotheses of this paper. Finally, the questionnaire of this study was designed according to the operationalized definitions and measurement scales of the variables of this study.

3.4 Operational Definitions and Measurement Scales

3.4.1 Negative emotions induced by social media

3.4.1.1 Operational Definition of Negative Emotions Induced by Social Media

In the review section, by organizing and summarizing the findings of existing studies and giving support to relevant theories, this study will rely on the definitions of (Yang, 2019; Su, 2019; Hussain, 2020; Chen, Guanshan, 2021; Tian & Zhang, 2021; Li et al. 2023) relevant scholars as a reference to summarize the definitional overview of negative emotions induced by social media as the definition of negative emotions induced on the Posting information containing elements of negative

emotions on social media platforms.

3.4.1.2 Measurement of Negative Emotions Induced by Social Media Scale

In this study, the Emotional Intelligence Scale (Law et al., 2004) paper was used to assess the Emotional Intelligence Competence Scale of college students, which, according to this definition, consists of four dimensions: the ability to assess and express self-emotions, the ability to recognize and assess the emotions of others, the ability to manage self-emotions, and the ability to use emotions. According to Law et al. (2004), it was shown that the scale has strong validity and is suitable for this study. In keeping with the specific objectives of this study, the questionnaire was refined and narrowed down so that it focuses only on the assessment and expression of one's own emotions and the identification and evaluation of others' emotions. These dimensions were chosen to investigate college students' reactions to negative emotions triggered by social media. The research scale is shown in Table 3.3 below：

Table 3.3

Measurement of Negative Emotions Induced by Social Media Scale

Dimension	Item
Ability to assess and express one's own emotions	1. usually I can tell the reasons why I will feel certain things.
	2. I understand my emotions well.
	3. I can really understand how I feel.
	4. I often know why I feel happy or unhappy.
Ability to recognize and assess the emotions of others	5. I can control my temper when I am in trouble.
	6. I am very good at controlling my emotions.
	7. When I am angry, I can usually calm down in a short time.
	8. I have great control over my emotions.

Note 1: This scale is for the Social Media Induced Negative Emotions Scale items.。

Note2： Law, K. S., Wong, C. S., & Song, L. J. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. Journal of Applied Psychology, 89(3), 483-496. doi: 10.1037/0021-9010.89.3.483. PMID: 15161407.

3.4.2 Rational thinking

3.4.2.1 Operational Definition of Rational Thinking

Rational thinking refers to the thinking process in which an individual's preferences and tendencies when confronted with a problem, and is able to analyze,

evaluate, and make decisions about the problem by using logical reasoning, critical thinking, and problem solving skills. This thinking process requires individuals to have certain cognitive and thinking abilities, including intelligence, reflective ability, numeracy, and other past experience thinking, and these concepts and theories can help us better understand the formation and impact of cognitively suspect beliefs (Erceg et al., 2019).

3.4.2.2 Rational Thinking Measurement Tool

The REI (Rational-Experiential Inventory-20) scale was cited in this study, which was originally developed by Pacini & Epstein (1999) as the full version of the Rational-Experiential Inventory (REI) to measure an individual's rational and experiential thinking styles.The REI (Pacini & Epstein, 1999) is a 40-item inventory consisting of two main scales: rational (20 items) and experiential (20 items). Each scale contains two subscales: competence (10 items) and engagement (10 items). The scale has good internal consistency (rationality, α=.90; rational competence, α.83; rational engagement, α=.84; experientiality, α=.87; experiential competence, α=.80; experiential engagement, α = .79). Thus, there are four subscales: rational competence, which refers to the level of logical thinking ability, e.g., "I am good at careful reasoning"; and rational engagement, which refers to the level of enjoyment of thinking in an analytic way, e.g., "Thinking carefully about something for a long time does not give me satisfaction." Experiential competence, reports of high or low intuitive thinking ability, e.g., "I can usually sense whether someone is right or wrong, even if I can't explain how I know"; experiential engagement, enjoyment or lack of enjoyment of intuitive thinking, e.g., "I like to rely on my intuitive impressions ".

Respondents rated each item on a 5-point Likert scale ranging from 1=Strongly Disagree to 5=Strongly Agree.The results of Pacini & Epstein's (1999) study indicated that the scale had good internal consistency. Many scholars' studies have also provided good evidence for the reliability of the REI (Handley et al., 2000; Marks et al., 2008; Pacini&Epstein, 1999; Witteman et al., 2009). This indicates that the scale has good validity. According to the needs of this study, after screening and adjusting for deletion, the 40-question question option on the rational and empirical dimensions of the REI scale was deleted and only 10 questions were retained. The research scale is shown in Table 3.4 below：

Table 3.4

Rational Thinking Measurement Scale

Dimension	Item
Rational Dimension	9. I am good at careful reasoning.
	10. I always like to think.
	11. I enjoy intellectual challenges.
	12. I am good at solving complex problems.
	13. I am a good analytical thinker.
Empirical dimension	14. Using my intuition usually works well to help me solve problems in life.
	15. when I listen to my deepest intuition for answers, it's all right.
	16. I often follow my intuition when deciding on a course of action.
	17. I trust my first feelings about people.
	18. when it comes to trusting people, I can usually rely on my intuition.

Note 1: This scale is a Rational Thinking Scale question item.

Note2 : Norris, P., Pacini, R., & Epstein, S. (1998). The Rational-Experiential Inventory, short form. Unpublished inventory. University of Massachusetts at Amherst.

3.4.3 Objective Judgement

3.4.3.1 Objective Judgment Operational Definition

In the review section, by organizing and summarizing the findings of the existing studies and giving support to the relevant theories, this study will be based on the definition of social media information literacy with reference to Heiss et al. , (2023), which refers to an individual's ability to identify, evaluate, use, and participate in the exchange of information in a social media environment. This includes how to effectively navigate social media platforms, curate and manage content, assess the authenticity and reliability of information, understand and interpret information, and create and interactively share content. The definition of social media information literacy is closely related to objective judgment. Information literacy emphasizes an individual's ability to identify and evaluate information in a social media environment,

which directly correlates to the process of making objective judgments.According to Paul (1990), objective judgments are evaluations that will not be made on the basis of intuition and experience, but rather, they will be made based on consideration of facts, evidence, and logical reasoning to make evaluations and decisions that are fair, neutral, and free of personal emotion and bias.

In summary, this researcher believes that the truthfulness and reliability of assessment information is the core of forming objective judgment. Defining this operationally as the ability of an individual with high social media information literacy to critically review and analyze information, this ability allows them to more accurately judge the value and truthfulness of information and thus make more objective decisions.

3.4.3.2 Objective judgment measurement tools

In this study, the Heiss et al. (2023) Social Media Information Literacy Scale, hereinafter referred to as SMIL, was used to measure social media literacy, which contains six dimensions: navigation, screening, assessment, comprehension, understanding, creation, and interaction. According to the need of variable 3 "objective judgment" in this study, only the three dimensions of screening, assessment, and comprehension were retained to test college students' ability to make objective judgments. Participants were asked to rate how well each item described them on a five-point scale from 1 (completely disagree) to 5 (strongly agree). The total score of the SMIL scale was calculated based on the average assessment of the five items, with higher scores indicating greater objective judgment. The study scale is shown in Table 3.5 below：

Table 3.5

Objective Judgment Measurement Scale

Dimension	Item
Selection	19. I customize the information displayed in my social media tweets according to my interests and preferences. 20. I edit my social media tweets to show me information that is important to me. 21. I set my social media tweets to show me information that interests me. 22. I search my social media feeds for information that interests me.
Eval.	23. I can critically evaluate the accuracy of message content on social media.

Compreh.	24. I can critically evaluate the truthfulness of the content of messages on social media. 25. I can critically evaluate the credibility of social media sources. 26. I can critically assess the credibility of social media sources. 27. I can understand complex content on social media. 28. I can understand posts from more complex topics on social media. 29. I can understand complex relationships mentioned on social media. 30. i can understand complex issues expressed in social media.

Note： Heiss, R., Nanz, A., & Matthes, J. (2023). Social media information literacy: Conceptualization and associations with information overload, news avoidance and conspiracy mentality. Computers in Human Behavior, 148, 107908.

3.5 Questionnaire Design

Questionnaire Survey Method (QSM) is a common research method used to collect and analyze data to understand people's perceptions, attitudes, behaviors, and opinions. It is applicable to various research fields such as social sciences, psychology, and market research (Chen & Lee, 2017). This study uses the questionnaire survey method, which is mainly used to collect data through questionnaires. The questionnaire, as the core part of the research instrument, usually consists of three main sections, each with specific objectives and content. These sections are designed and organized to ensure that the questionnaire can accurately collect relevant data and meet the requirements of the study. The first part is the description section of the scale, which aims to introduce the respondents to the purpose and background of the whole questionnaire, as well as to explain in detail the indicators involved; the second part is the basic information section of the respondents, which aims to understand some of the basic background of the respondents. This includes information such as gender, subject specialization, social media platforms used, and length of time spent on social media. This information will be used as a basis for control indicators or descriptive statistics when analyzing the results of the study. The third section is the main part of the questionnaire and is the focus of this study. In this part, for the variables covered in this paper, the corresponding subscales will be designed for measurement. Each subscale will contain a series of continuous questions for corresponding concepts. This part needs to be designed to ensure accuracy, incrementality and coverage of the questions to ensure that representative data is obtained. The questionnaire was designed using a 5-point Likert scale

This study consisted of 34 questions. The basic information of the survey sample was collected and consisted of the first 4 questions.Shirzadifard (2018) in his study examined the relationship between this rational and empirical processing styles and factors such as age, gender and academic performance. It was found that rational processing style was positively related to academic performance while empirical processing style was negatively related to academic performance. Therefore, this study included major and gender in the development of contextual variables to be analyzed. Questions 5 to 12 were used to measure the respondents' emotional intelligence abilities in coping with negative emotions triggered by social media, which consisted of two aspects: the ability to assess and express one's own emotions, and the ability to recognize and assess the emotions of others. Questions 13 through 22 covered these dimensions and were primarily used to measure survey respondents' experience of rational thinking, which encompasses both rational and empirical thinking dimensions. Questions 23 to 34 were mainly used to measure the survey respondents' ability to objectively judge social media media literacy, which contained the dimensions of screening, comprehension, and assessment. Among them, questions 5 to 34 are scale questions, using a five-point Likert scale, with 1 representing total disagreement and 5 representing total agreement. This questionnaire is designed to understand the characteristics and patterns of social media use among college students, to grasp their knowledge of social media literacy, and to provide a basis for the subsequent construction of new methods, modes and paths of online ideological education.

3.6 Sampling Technique

This study was conducted by online web-based questionnaire survey, and the questionnaire pre-survey was conducted in the month of August 2023 using Convenience Aampling (CAS). This study is based on college students enrolled in a comprehensive university in the Southwest Area. College students aged 18-23 years old were mainly selected as survey respondents. The economy of the southwest area is relatively underdeveloped, and the college students are relatively inexperienced, emotionally unstable, and easily influenced by false information, leading to the formation of irrational judgment behavior. Therefore, it has a certain degree of representativeness. This study adopts the convenience sampling method to select

samples.

3.7 Pilot Study

In the existing research, the recommendation on the sample size of the pre-test questionnaire selection is the principle of 3 to 5 times of the total number of scale items (Wu, 2010), in this study, the total number of scalar items is 30, and the sample size of the 3 times selection should be 90, considering the possible need to eliminate the invalid questionnaires, a total of 120 small-sample pre-test questionnaires were distributed in this study. This study distributed questionnaires to a comprehensive university through WeChat and QQ groups, and finally 120 questionnaires were returned, and questionnaires with too long or too short answer times were excluded, and finally 100 valid questionnaires were obtained, with a validity rate of 83.33%, which were analyzed as pretest data.

3.7.1 Reliability of Pilot Study

In the reliability analysis of this study, the focus was on the internal consistency or stability of the scale, which was mainly measured by Cronbach's alpha coefficient.Cronbach's alpha coefficient is used to evaluate the level of internal consistency of the different variable items in a small sample of data. Generally, if the value of this coefficient is higher than 0.7, the scale is considered to have acceptable reliability. In addition, the item-total score correlation (CITC) analysis was used in this study to further examine the homogeneity of the scale. This analysis was accomplished by calculating the correlation coefficient of the product of point differences between individual item scores and the overall score. Typically, topics with CITC values above 0.5 were considered acceptable. If a topic has a CITC value below 0.5, it should be considered for removal, provided that the removed CITC value is below the Cronbach's alpha coefficient. When the Cronbach's alpha coefficient is below 0.7, it indicates that the consistency of the questions in the scale is poor and adjustments need to be made; however, this does not mean that the questions are completely worthless. When the Cronbach's α coefficient lies between 0.7 and 0.9, it indicates that the scale shows high internal consistency; and the scale shows high internal consistency when the coefficient value is more than 0.9, which indicates that the internal consistency of the scale is extremely high (Su & Yu, 2022). In this study, SPSS was used to test the prediction of negative emotions, rational thinking, and

objective judgment induced by social media, and the test results are shown in Tables 3.6.1, 3.6.2, and 3.6.3. As shown in the table, the Cronbach's alpha coefficients of all variables in this study are greater than 0.7, with variable 1 being 0.886; variable 2 being 0.907, and variable 3 being 0.927, which indicates that the reliability of the three variables is good.

（1） Reliability Analysis of Negative Emotions Induced by Social Media

As shown in Table 3.6.1, the CITC values of the negative emotions induced by social media scale items ranged from 0.515-0.758, which were all higher than the critical value of 0.5, indicating that the scale questions were received, and the Cronbach's α of the whole scale was 0.886, which was much higher than the lowest value of 0.7, indicating that there was a high level of internal consistency of the scale.

Table 3.6.1

Results of the Reliability Test of the Negative Emotions Scale Induced by Social Media

No.	Item	CICT	Cronbach's α (After Deletion)	Cronbach's α
1.	Usually I can tell the reasons why I will feel certain things.	.515	.885	
2.	I understand my emotions very well.	.641	.874	
3.	I can really understand how I feel.	.703	.868	
4.	I often know why I feel happy or unhappy.	.575	.881	0.886
5.	I can control my temper when I am in trouble.	.731	.864	
6.	I am very good at controlling my emotions.	.758	.862	
7.	When I am angry, I can usually calm down in a very short time.	.609	.877	
8.	I have great control over my emotions.	.729	.864	

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

（2） Reliability Analysis of the Rational Thinking Scale

As shown in Table 3.6.2, the CITC values for the Rational Thinking Scale items

ranged from 0.564 to 0.782, which were all above the critical value of 0.5, indicating that the scale questions were received, and the Cronbach's alpha for the entire scale was 0.907, which was much higher than the lowest value of 0.7, indicating high internal consistency of the scale.

Table 3.6.2

Results of the Rational Thinking Scale Reliability Test

No.	Item	CICT	Cronbach's α (After Deletion)	Cronbach's α
1.	I'm good at careful reasoning.	.685	.896	
2.	I always like to think.	.734	.893	
3.	I enjoy intellectual challenges.	.643	.899	
4.	I am good at solving complex problems.	.678	.897	
5.	I am a good analytical thinker.	.782	.891	
6.	Using my intuition usually works well to help me solve problems in my life.	.702	.896	0.907
7.	When I listen to my deepest instincts for answers, it's all right.	.640	.899	
8.	I often follow my intuition when deciding on a course of action.	.594	.902	
9.	I trust my first feelings about people.	.657	.899	
10.	When it comes to trusting people, I can usually rely on my intuition.	.564	904	

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

（3） Reliability analysis of the Objective Judgment Scale

As shown in Table 3.6.3, the CITC values of the Objective Judgment Scale question items ranged from 0.584-0.801, which were all higher than the critical value

of 0.5, indicating that the scale questions were accepted, and the Cronbach's alpha for the whole scale was 0.927, which was much higher than the lowest value of 0.7, indicating that there was a high level of internal consistency in the scale.

Table 3.6.3

Results of Objective Judgment Scale Reliability Test

No.	Item	CICT	Cronbach's α (After Deletion)	Cronbach's α
1.	I will customize the information displayed by my social media tweets according to my interest preferences.	.632	.924	
2.	I will edit my social media tweets to show me information that is important to me.	.584	.925	
3.	I will set up my social media tweets to show me information that interests me.	.610	.924	
4.	I will search social media for information that interests me.	.613	.924	
5.	I can critically review the accuracy of message content on social media.	.780	.918	
6.	I can critically review the truthfulness of the content of messages on social media.	.755	.918	0.927
7.	I can critically examine the credibility of social media sources.	.709	.920	
8.	I can critically evaluate the credibility of social media sources.	.801	.917	
9.	I can understand the complexity of content on social media.	.701	.921	
10.	I can understand posts from more complex topics on social media.	.710	.920	
11.	I can understand complex relationships mentioned in social media.	.722	.920	
12.	I can understand complex issues expressed in social media.	.681	.921	

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

3.7.2 Validity of Pilot Study

Validity checks measure the validity of each item in a questionnaire and analyze the validity of the measurements. It can effectively determine the rationality of the scale item design. This study refers to mature scales to ensure the validity of the scale content. However, considering the small sample size in the pretest and the translation and definition problems of the scale, exploratory factor analysis will be used to test the validity of the scale.

When conducting exploratory factor analysis, the Bartlett's spherical test and KMO value of each factor analysis should be observed first.The significance level of the Bartlett's spherical test should be less than 0.05, while the KMO value should be greater than or equal to 0.6, which indicates that the data can be used to extract information effectively.

(1) Variable 1: Validity analysis of negative emotions induced by social media

From Table 3.7.1, it can be seen that the KMO value of the scale of negative emotions induced by social media is 0.791, which is greater than 0.6, indicating that the data can effectively extract information.The significance level of Bartlett's spherical test is less than 0.05. Therefore, variable 1 has good validity.

Table 3.7.1

Results of a validity test of the Negative Emotions Scale induced by social media

KMO and Bartlett's test		
KMO Number of Sampling Suitability Measure		.791
Bartlett's test of sphericity	Approximate cardinality	540.708
	Degrees of freedom	28
	Significance	.000

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

(2) Variable 2: Validity analysis of rational thinking

From table 3.7.2 it can be seen that the KMO value of Rational Thinking Scale is 0.899 which is greater than 0.6 and the data can be used to extract the information efficiently.The significance of Bartlet's sphere test is less than 0.05.Therefore, variable 2 has good validity.

Table 3.7.2

Results of a validity test for rational thinking

KMO and Bartlett's test		
KMO Number of Sampling Suitability Measure		.899
Bartlett's test of sphericity	Approximate cardinality	536.383
	Degrees of freedom	45
	Significance	.000

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

(3) Variable 3: Validity analysis of objective judgment

From table 3.7.3, the KMO value of objective judgment scale is 0.862 which is greater than 0.6 and the data can be extracted information effectively.The significance of Bartlet's sphere test is less than 0.05.Therefore, variable 3 has good validity.

Table 3.7.3

Results of the validity test of the Objective Judgment Scale

KMO and Bartlett's test		
KMO Number of Sampling Suitability Measure		.862
Bartlett's test of sphericity	Approximate cardinality	984.614
	Degrees of freedom	66

	Significance	.000

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

3.8 Analysis of Official Questionnaire throught the Research

After collecting the recovered research questionnaires, the statistical software SPSS was used to organize and summarize the sample data, and the questionnaire data were statistically analyzed. The analysis included descriptive analysis, scale reliability analysis, mean value analysis, difference analysis and correlation analysis between the variables.

3.8.1 Reliability Analysis

Reliability analysis is a necessary step in quantitative research to assess the reliability and validity of measurement instruments. Reliability, or credibility, refers to the degree of consistency of the results obtained when the same object is measured repeatedly using the same method. Reliability indicators are usually expressed in terms of correlation coefficients, which are mainly categorized into stability coefficients (consistency across time), equivalence coefficients (consistency across forms), and internal consistency coefficients (consistency across items). Among them, Cronbach's reliability coefficient is the most commonly used reliability indicator, and the reliability coefficient of the total scale should preferably be above 0.8, and between 0.7 and 0.8 is also acceptable. After the reliability analysis through SPSS, the statistical results are shown in Table 1.1, the Cronbach's alpha value of the 8 items contained in the Emotional Intelligence Scale is 0.899; the Cronbach's alpha value of the 10 items contained in the Rational Experience Scale is 0.921; and the Social Media Media The Cronbach's alpha for the 12 items of the Social Media Literacy Scale is 0.953, and the reliability coefficients of all the questionnaires are greater than 0.8, which is a high degree of reliability, thus indicating that the questionnaires as a whole are stable and reliable.

Table 3.8.1

Reliability Analysis

Variable	Cronbach's Alpha	Number of items
NEISMS	0.899	8
RTS	0.921	10
OJS	0.953	12

Note 1: Negative Emotions Induced by Social Media Scale (NEISMS); Rational Thinking Scale (RTS); Objective Judgment Scale (OJS)

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

Then the CITC test was conducted for each scale to examine the changes in reliability that occurred after certain items were deleted from each scale, thus correcting the scale. The Emotional Intelligence Scale was examined first, and the basis for determining whether the scale needed to be improved and deleted was to determine whether the overall correlation after item deletion was less than 0.3, and if that was satisfied then to determine whether the alpha coefficient after deletion of the items was greater than the original coefficient. As shown in Table 1.2, the correlation of each item of the Emotional Intelligence Scale after deletion is greater than 0.3, which indicates that the items of the original scale should not be deleted, so it is sufficient to use the original scale to conduct the survey.

Table 3.8.2

Negative Emotions Induced by Social Media Scale

Project General Statistics				
	Mean of scale with ıtems deleted	Scale variance with items deleted	Item-total correlation after correction	Cronbach's Alpha After deletion
5. usually I can tell the reason why I will feel certain things.	25.39	23.853	.531	.900
6. I understand my emotions well.	25.34	22.881	.693	.886
7. I can really understand my feelings.	25.39	22.816	.701	.885
8. I often know why I feel happy or unhappy.	25.39	22.869	.626	.892
9. I can control my temper when I am in trouble.	25.68	21.908	.750	.880
10. I am very good at controlling my emotions.	25.73	22.088	.736	.881
11. When I am angry, I can usually	25.76	22.304	.681	.887

When I am angry, I can usually calm down in a short time.	25.76	21.955	.758	.879

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

Secondly, looking at the Rational Thinking Scale, Table 3.8.3 shows that the correlation of each item of the Rational Thinking Scale after deletion is greater than 0.3, which means that the items of the original scale should not be deleted, so it is sufficient to use the original scale to conduct the survey.

Table 3.8.3

Rational Thinking Scale

Project General Statistics				
	Mean of scale with items deleted	Scale variance with items deleted	Item-total correlation after correction	Cronbach's Alpha After deletion
13. I am good at careful reasoning.	31.07	33.394	.722	.911
14. I always like to think.	30.91	34.144	.673	.914
15. I like intellectual challenges.	31.12	33.761	.693	.913
16. I am good at solving complex problems.	31.29	33.391	.733	.911
17. I am an analytical thinker.	31.06	33.230	.771	.909
18. Using my intuition usually helps me solve life's problems.	30.98	33.736	.738	.911
19. When I listen to my deepest intuition for answers, it is all right.	31.12	33.240	.741	.910
20. I often follow my intuition when deciding on a course of action.	31.10	33.661	.698	.913
21. I trust my first feelings about people.	30.92	34.236	.608	.918

22. When it comes to trusting people, I	31.03	34.245	.634	.916

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

Finally, examining the Objective Judgment Scale, Table 3.8.4 shows that the correlation after deleting each item of the Objective Judgment Scale is greater than 0.3, indicating that the original scale items should not be deleted, so it is sufficient to use the original scale to conduct the survey.

Table 3.8.4

Objective Judgment Scale

Project General Statistics				
	Mean of scale with items deleted	Scale variance with items deleted	Item-total correlation after correction	Cronbach's Alpha After deletion
23. I will customize the information displayed on social media tweets according to my interests	39.64	50.809	.692	.951
I will customize the information displayed in my social media pushes according to my interests and preferences.	39.68	50.194	.737	.950
24. I will edit my social media	39.69	50.213	.735	.950
tweets so that I see the information that is important to me.	39.41	51.681	.666	.952
25. I will set my social media	39.64	49.910	.827	.947
I will set my social media tweets to show me information that is of interest to me.	39.65	50.163	.808	.948
26. I will search social media for information that interests me.	39.67	50.170	.820	.947

27. I can critically review the content of	39.65	50.153	.823	.947
I can critically review the accuracy of messages on social media.	39.74	50.445	.808	.948
28. I can critically examine the truthfulness of messages on social media.	39.75	50.577	.793	.948
I can critically examine the truthfulness of messages on social media.	39.76	50.607	.782	.948
29. I can critically examine the	39.74	50.803	.789	.948

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

3.8.2 Validity Analysis

After determining that the variables are reliable, validity testing is then performed. Validity analysis is an analysis that assesses the degree to which a scale or expression of quantity is accurate to the measure. The higher the validity, the more accurate the measurement of the questionnaire. The KMO and Bartlett's spherical test of the validity of the questionnaire was conducted by using factor analysis through SPSS statistical software, and the statistical results are shown in Table 3.8.5.The significance level of Bartlett's spherical test for each scale of the questionnaire is 0.000, and the value is less than 0.05, which means that the relationship of the relevant variables is very adequate. And the kmo values of Emotional Intelligence Scale (kmo=0.876), Rational Experience Scale (kmo=0.929), and Social Media Media Literacy Scale (kmo=0.943) are all greater than 0.8, which means that the data of the questionnaire has a good validity and stability, and can be used in the subsequent statistical analysis.

Table 3.8.5

Validity Analysis

Variable	N	KMO	Sig.
Emotional Intelligence Scale	8	0.876	0.000

Rational Thinking Scale	10	0.929	0.000
Social Media Literacy Scale	12	0.943	0.000

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

3.9 Data Analysis

After the questionnaires were returned, statistical software was used to organize and summarize the sample data, and the questionnaire data were statistically analyzed. The analysis included descriptive analysis, scale reliability analysis, mean analysis, difference analysis, and correlation analysis between the variables.

3.9.1 Descriptive Analysis

Descriptive analysis is a statistical method designed to provide a general overview and interpretation of a data set to reveal key features, patterns, trends, and relationships in the data without involving in-depth inferences or hypothesis testing. It is often used for initial exploration of data, providing a visualization and summary of the data and helping to better understand the underlying characteristics of the data. The main goals of descriptive analysis include: 1. Measures of central tendency: describing where the center of a data set is located, such as the mean, midpoint, and plurality. These measurements tell us about typical values or centralized trends in the data.2. Dispersion measures: focus on the degree of dispersion of the data, including range, variance, standard deviation, and interquartile range.

3.9.2 Reliability Analysis

The reliability test, also known as the reliability test, is a test that assesses the degree of consistency between the results of repeated measurements of the same object using the same method, and tests whether the data are true, whether the researched population has answered the questions seriously, and the credibility of the answered questions. It is generally measured using Cronbach's reliability coefficient (Cronbach's α) value. According to the existing research, it is proved that the reliability of the scale should preferably be above 0.70, between 0.60-0.70 can be accepted, above 0.60 indicates that the scale needs to be adjusted, but it does not mean that it loses its value, and if the reliability coefficient reaches more than 0.85, then it indicates that the reliability of the scale is good.

3.9.3 Validity Analysis

Validity testing is the process of evaluating and analyzing the validity of the

results of a scale measure to determine whether the items measured accurately reflect the concept under study. This process involves two main aspects, namely construct validity and content validity, thus ensuring that the design and content of the scale are effective in reducing the indicator of interest. In this study, reference is made to relevant mature scales to ensure that the content of the designed scale is valid and generalizable. At the same time, the questions of the questionnaire were further amended in conjunction with the survey object and variable definition to ensure that the validity of the content of the scale meets the standard. In terms of structural validity, the exploratory factor analysis method was adopted, and after the Bartlett's sphere test and the KMO value test, the factor analysis was conducted using the principal component analysis method, and the factor rotation method was used to rotate the factors using the maximum variance rotation method, as well as the number of dimensions according to the number of dimensions as a criterion for factor extraction

3.9.4 Pearson Correlation Analysis

In this study, correlation analysis was used to further explain the causal relationship between the variables and to analyze the relationship between the variables. The correlation coefficient (r-value) ranges between -1 and 1. The closer the r-value is to 1 the higher the correlation between the variables. When the r-value is 0.7 and above, it indicates a high correlation, r-value between 0.3 and 0.7 indicates a moderate correlation, and below 0.3 indicates a low correlation. If the value of correlation coefficient is 0, it indicates that there is no correlation, while positive and negative values indicate the direction of the relationship between the variables. A rank correlation coefficient that is too low but still shows significance indicates that there is still a correlation even though the relationship is weak.

CHAPTER 4

RESULTS

This chapter analyzes the research questions and hypotheses from Chapter 2 using the methodology and data from Chapter 3. It evaluates scales measuring negative emotions, rational thinking, and objective judgment triggered by social media. Descriptive statistics, reliability and validity assessments, and correlation studies are used to test the hypotheses and explore variable relationships.

4.1 Mean Analysis of NEISMS, RTS and OJS

Based on the Weighted Mean criteria provided, we analyzed the mean values of negative emotions induced by social media, rational thinking, and objective judgment. The results show that the weighted mean of negative emotions induced by social media is 3.6608, and the weighted mean of this variable is in the range of 3.50-4.49, which is "high"; the weighted mean of rational thinking (REI) is 3.4560, and the weighted mean of this variable is in the range of 2.50-3.49, which is "moderately high"; and the weighted mean of objective judgment is 2.50-3.49, which is "moderately high". The weighted mean for Objective Judgment was 3.6021, with a weighted mean in the range of 3.50-4.49, which is "high". Taken as a whole, the respondents' attitudes towards negative emotions induced by social media, rational thinking and objective judgment are all at the "moderately high" level, indicating that the H1 result is valid.

Table 4.1

Mean Scores of Three Variables of the Current Research

Variables	Mean	SD
NEISMS	3.660	.6755
RTS	3.456	.6493
OJS	3.602	.6544

Note 1: Negative Emotions Induced by Social Media Scale (NEISMS); Rational Thinking Scale (RTS); Objective Judgment Scale (OJS)

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

4.2 Variance of Analysis on Demographic Variables

Analysis of variance is a statistical analysis used to compare, detect and explain differences between groups. It aims to determine whether the differences between different groups are significant or not. The variables in this paper were analyzed using the one-way ANOVA test to determine the variability of the different groups on the dimensions. Firstly, the differences between men and women on the dimensions were explored, as can be seen in Table 4.2.1, there is a significant difference between men and women on negative emotions induced by social media (0.000), rational thinking (0.000), and objective judgments (0.004) (significance level of 0.05).

Table 4.2.1

Tests of Differences between Genders on Dimensions - Descriptive Statistics

	Gender (mean ± standard deviation)		F	p
	Male	Female		
NEISMS	3.80±0.0428	3.57±0.0239	24.211	0.000
RTS	3.57±0.0398	3.39±0.0234	18.588	0.000
OJS	3.69±0.0397	3.56±0.0238	8.441	0.004

Note 1: Negative Emotions Induced by Social Media Scale (NEISMS); Rational Thinking Scale (RTS); Objective Judgment Scale (OJS)

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

Secondly, to explore the differences between the majors studied (Arts and Sciences) on the dimensions, it can be seen from Table 4.2.2 that there are significant differences between Arts and Sciences on negative emotions induced by social media ($p=0.001, p<0.05$) and rational thinking (0.016, $p<0.05$); and there is no significant difference in objective judgment ($p=0.523, p>0.05$) (the significance level of 0.05).

Table 4.2.2

Test of Difference between Arts and Sciences on Dimensions - Descriptive Statistics

	Arts and Sciences (mean ± standard deviation)		F	p
	Arts	Sciences		
NEISMS	3.58±0.0284	3.73±0.0335	10.196	0.001
RTS	3.41±0.0259	3.51±0.0334	5.829	0.016
OJS	3.59±0.6045	3.62±0.6899	0.408	0.523

Note 1: Negative Emotions Induced by Social Media Scale (NEISMS); Rational Thinking Scale (RTS); Objective Judgment Scale (OJS)

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

Moving on to explore the variability of different social media use platforms on the dimensions, it can be seen from Table 4.2.3 that there is no significant difference in the performance of people using different social media on the scales of negative emotions induced by social media (p=0.610, p>0.05), rational thinking (p=0.986, p>0.05), and objective judgment (p=0.156, p>0.05) (p>0.05).

Table 4.2.3

Differences across social media use platforms on each scale

		ANOVA				
		SS	DF	MSF	F	Sig.
NEISMS	Intergroup	1.228	4	.307	.675	.610
	Within Groups	431.320	948	.455		
	Total	432.548	952			
RTS	Between Groups	.149	4	.037	.090	.986
	Within Groups	392.513	948	.414		
	Total	392.661	952			
OJS	Between Groups	2.756	4	.689	1.663	.156
	Within group	392.688	948	.414		
	Total	395.444	952			

Note 1: Negative Emotions Induced by Social Media Scale (NEISMS); Rational Thinking Scale (RTS); Objective Judgment Scale (OJS)

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

Finally, to explore the variability of different social media usage time on the dimensions, it can be seen from Table 4.2.6 that there is no significant difference between different social media usage time on the scales of negative emotions induced by social media (p=0.278, p>0.05), rational thinking (p=0.342, p>0.05), and objective judgment (p=0.159, p>0.05) (p> 0.05).

Table 4.2.3

Differences in time spent on different social media uses across dimensions

		ANOVA				
		SS	DF	MSF	F	Sig.
NEISMS	Intergroup	1.752	3	.584	1.287	.278
	Within Groups	430.796	949	.454		
	Total	432.548	952			
RTS	Between Groups	1.378	3	.459	1.114	.342
	Within Groups	391.283	949	.412		
	Total	392.661	952			
OJS	Between Groups	2.151	3	.717	1.730	.159
	Within group	393.293	949	.414		
	Total	395.444	952			

Note 1: Negative Emotions Induced by Social Media Scale (NEISMS); Rational Thinking Scale (RTS); Objective Judgment Scale (OJS)

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

4.3 Correlation Analysis among NEISM, RT and OJS

Correlation analysis is an important method used to test the existence of dependence between variables, and its results can prepare for subsequent regression analysis. Pearson's correlation coefficient is generally used as an indicator for analysis, and the r value is considered to be between -1 and 1. When r=1, it indicates complete positive correlation; when r=0, it indicates no linear correlation; when r=-1, it indicates complete negative correlation. When r≤0.3 indicates a low correlation, 0.3 ≤r≤ 0.8 indicates a moderate correlation, and r ≥ 0.8 indicates a high correlation. This study used two-tailed test to explore the correlation between variables through Pearson correlation coefficient and p-value significance. The specific correlation analysis is shown in Table 4.3.2. Correlation between negative emotions induced by social media and rational thinking: pearson correlation coefficient: 0.691**, significance (two-tailed): 0.000. the results show that there is a significant positive correlation between negative emotions induced by social media and rational thinking, with a correlation coefficient of 0.691**. Correlation between negative emotions induced by social media and objective judgment: Pearson's correlation coefficient:

0.677**, significance (two-tailed): 0.000.The results show that there is a significant positive correlation between negative emotions induced by social media and objective judgment with a correlation coefficient of 0.677**. Correlation between rational thinking and objective judgment: Pearson's correlation coefficient: 0.754**, significance (two-tailed): 0.000 This shows that there is a significant positive correlation between rational thinking and objective judgment with a correlation coefficient of 0.754**.

Taken together, the correlations between the three variables are positive and all are statistically significant. This implies that there is a strong correlation between negative emotions, rational thinking and objective judgment induced by social media in this sample. These results provide valuable clues for further in-depth research to more fully understand the relationship between these variables and their impact on individual behavior.

Table 4.3

Results of Correlation Analysis among NEISM, RT and OJS

		MEISM	RT	OJ
MEISM	Pearson correlation	-		
	Significance (two-tailed)			
RT	Pearson Correlation	.691**	-	
	Significance (two-tailed)	.000		
OJS	Pearson Correlation	.677**	.754**	-
	Significance (two-tailed)	.000	.000	

***Correlation is significant at the 0.01 level (2-tailed).*

Note 1: Negative Emotions Induced by Social Media (NEISM); Rational Thinking (RT); Objective Judgment (OJ)

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

4.4 Summary of the research question hypothesis

This chapter is devoted to empirically analyzing the impact of social media-induced negative emotions on college students' rational thinking and objective judgment ability. The study used a variety of statistical analysis methods, including mean analysis, demographic analysis, reliability and validity analysis, and correlation analysis. At the initial stage, demographic analysis was utilized to determine the basic profile of the questionnaire. Subsequently, reliability and validity of the research scale was ensured through reliability and validity analysis to verify the quality of the

collected data. Further, mean analysis was utilized to assess the level of mean values of the three main variables; while analysis of variance was used to explore the potential differences between the background variables and the main variables. Finally, correlation analysis was used to examine in depth the interrelationships between social media-induced negative emotions, rational thinking, and objective judgment. The results summarized in Table 4.4 indicate that all four sub-hypotheses out of the three main hypotheses of this study were empirically supported. Specifically, the mean levels of negative emotions, rational thinking, and objective judgments induced by social media were in the moderate to high range. Gender differences were significantly reflected in three variables, while arts and sciences background showed variability in only two dimensions (social media-induced negative emotions and rational thinking), with no significant effect on objective judgment. In addition, the platform of social media use and the duration of social media use showed no significant difference on any of the above variables. Overall, the correlation analysis among the three variables shows that there is indeed an interrelation between social media-induced negative emotions and rational thinking and objective judgment, as shown in Table 4.4.

Table 4.4

Results of research hypothesis testing

Hypo.	Hypo Statement	Testing	2-Tailed Sig.	Results
H1	The mean values of the three variables of negative emotions, rational thinking, and objective judgment induced by social media were moderately high in the Chinese college student population.	T-test	p<0.05	Accept
H2a	There is a difference between gender and the three variables.	T-test	p<0.05	Accept
H2b	There is a difference between major and negative emotions induced by social media.	T-test	p<0.05	Accept
H2c	There is a difference between specialization and rational thinking.	T-test	p>0.05	Reject
H2d	There is a difference between professionalism and objective judgment.	ANOVA	p>0.05	Reject
H2e	There was a difference between social media use by platform and the three variables.	ANOVA	p>0.05	Reject
H2f	There is a difference between time spent using social media and the three variables.		p>0.05	Reject
H3	There is a correlation between the three	Pearson	r≤0.8	Accept

variables.	Correlation

Note：*The data herein is sourced from a compilation independently conducted by the researcher in 2023*

Synthesizing the results of the study, we conclude that social media has an impact on the cognition and emotions of college students. Gender and professional background play an important role in this regard, whereas the platform of use and time of use have relatively little effect on negative emotions, rational thinking, and negative emotions induced by social media. These findings provide useful insights for understanding the role of social media in the psychological and cognitive dimensions of college students, as well as directions for further research in the future.

CHAPTER 5

CONCLUSION AND DISCUSSION

This chapter is divided into four subsections. The first section presents the conclusions of the study based on the research hypotheses and empirical results; the second section presents the conclusions of the study based on the conclusions of the study for this chapter mainly based on the results of the empirical analysis, summarizes the previous section, draws the conclusions of the study, and presents the conclusions of this study to make recommendations to the society, schools, and individuals, as well as the limitations and future prospects of this study, with a view to providing a reference basis for the subsequent studies.

5.1 Conclusion and Discussion

Based on the research results of existing scholars, this study takes the relationship between the three variables of negative emotions, rational thinking, and objective judgment induced by social media as the research hypothesis, collects a large amount of empirical data by distributing research questionnaires, and conducts an in-depth analysis by using statistical analysis methods. The following are the main conclusions of this study:

H1: The mean values of the three variables of negative emotions, rational thinking, and objective judgment induced by social media are moderately high in the Chinese college student population.

In the analysis of the mean values of the three variables of social media-induced negative emotions, rational thinking and objective judgment, the mean value of social media-induced negative emotions is 3.6608, the mean value of rational thinking is 3.4560, and the mean value of objective judgment is 3.6021. Taken together, the mean values of all the variables are above the median value by 3 points, which means that the three dimensions are "on the upper side" among Chinese college students as a whole. The mean value of all variables is above the median value of 3, indicating that these three aspects are on the "upper" level in the Chinese college student population as a whole. Therefore, the H1 validation result of this study is valid. The results of this study are consistent with the results of some studies. Information on social media is mainly emotionally oriented (Zhang et al. 2021; Xu et al. 2023; Wan & Zhou,

2023;), which may lead to stronger negative emotions in the college student population (Zhang, 2015; Dang, 2017; Chen & Zhang, 2018; Yang, 2020;). Meanwhile, college students pay more attention to emotional expression on social media, which may diminish the performance of rational thinking and objective judgment (Liu, 2015).

H2: The effects of negative emotions, rational thinking, and objective judgment induced by social media differ by background variables (gender, major, social media use platform, and social media use time).

In the comparison of differences in demographic variables, gender had a significant effect on the performance of negative emotions, rational thinking, and objective judgment induced by social media. There were significant differences between men and women on negative emotions induced by social media, rational thinking, and objective judgment, with men generally scoring higher than women, highlighting gender differences in the ability to deal with emotional reactions induced by social media and to engage in rational thinking and objective judgment. This is consistent with the majority of scholarly research (Handley et al., 2000; Pacini & Epstein, 1999; Sladek, Bond, & Phillips, 2010; Witteman et al., 2009), which also suggests that males and females have different strategies and abilities to process information, regulate emotions, and use social media. different strategies and abilities in their habits (Wu et al., 2018; Marie etal., 2023; Elena & Eva 2023). It is also due to the fact that men are more focused on rational thinking and better at analyzing with logical thinking than women (Liu, 1990). Therefore, hypothesis H2a of this study is valid; these findings are important for understanding how gender affects people's cognitive and social behaviors, and they also suggest the importance of educators and policy makers to consider gender differences when designing educational curricula and guidance on social media use.

From the results of the study, professional differences showed significance in negative emotions and rational thinking induced by social media, and science students generally scored higher than liberal arts students in negative emotions and rational thinking induced by social media, and professional differences showed significance in these aspects, reflecting the fact that science students generally scored higher than liberal arts students. Therefore, hypotheses H2b and H2c of this study are valid. This finding suggests consistency with certain scholarly studies, as Ren & Zhao (2019)

argued that science education usually emphasizes logical thinking, analytical skills, and systematic problem-solving approaches. On the contrary, liberal arts education may focus more on critical thinking, creative expression, and humanistic understanding, which are also important competencies, but may not be as direct as science education in enhancing emotional intelligence and rational experience (Lin, 1997).

In this study, H2d, H2e, and H2f were not valid. Although the major differences in objective judgment were not significant, contrary to previous studies, the results of Li Xia et al.'s (2020) study showed that liberal arts students had higher sensitivity to media messages, multiple evidence seeking, and thinking time than science and engineering students. This suggests that heterogeneity between disciplines may have contributed to the existence of differences in these areas. Similarly, the differences in social media use platforms, and time were not significant on all three variables. This is contrary to Wan et al.'s (2023) study, which showed that social media addiction exacerbated individual differences in cognitive and emotional aspects of users, which in turn increased their social anxiety and depressive negative emotions. Hu & Wang (2023) found that "platform swing" influences the characteristics of young people's perception and use of time. Excessive use of social media may also lead to distraction and confusion, which in turn may affect rational thinking. However, this difference may be affected by sample characteristics and the sensitivity of the measurement tool, which may limit the ability to capture subtle differences (Xiao et al., 2023; Miao et al., 2022), and therefore fail to detect some differences. Therefore, future research needs to use larger and more diverse samples, as well as longer-term follow-up studies to continue to delve deeper into whether there is heterogeneity across majors in terms of social media use platforms, time of use in response to the university's social media-induced emotional responses, and the ability to engage in rational thinking and objective judgment.

H3: Correlation between social media-induced negative emotions, rational thinking, and objective judgment among Chinese college students.

Through correlation analysis, it was found that there is a significant positive relationship between negative emotions induced by social media and rational thinking and objective judgment. Therefore, the H3 hypothesis of this study is valid, which implies that negative emotions may reduce the level of rational thinking and make

individuals more susceptible to the interference of emotional factors, thus affecting objective judgment (Zhang & Cai, 2021; Hu & Wu, 2023). Negative emotions may affect objective judgment by making individuals more susceptible to interference from emotional factors, thereby diminishing the objective view of information (Zeng et al., 2013). Also, there is a significant positive correlation between rational thinking and objective judgment, indicating that in this sample, the results of this study are consistent with some scholars who agree that individuals with higher levels of rational thinking are more likely to make objective judgments (Tversky & Kahneman, 1989). The existence of a positive affective relationship among the three may indicate that negative emotions induced by social media do not necessarily impair rational thinking and objective judgment in certain contexts. Instead, they may somehow reinforce each other. As Party (2017) pointed out in his study, negative emotions mutually reinforce each other with frequent communication, but when comments reach the level of full discussion, rational thinking will regain its dominance. This relationship suggests that emotional and cognitive processes may be more complex and multidimensional than traditional views suggest, illustrating the need to synthesize the interplay between emotion and cognition when studying the impact of social media.

In summary, the research question hypothesis concludes that social media has an impact on the cognition and emotions of college students. Gender and professional background played an important role in this regard, while the use of platforms had relatively little impact on rational thinking and negative emotions. These findings provide useful insights for understanding the role of social media in the psychological and cognitive dimensions of college students and provide directions for future in-depth research.

5.2 Recommendations

According to the results of this study, there is a positive influence relationship between social media-induced negative emotions and rational thinking and objective judgment of college students. This suggests that in order to enhance the rational thinking and objective judgment of college students, individuals, social media platforms, educational institutions, and the community need to work together to develop and implement effective strategies and methods. Based on this, this paper makes the following recommendations:

At the individual level, this study advocates strengthening media literacy

education to enhance users' ability to discriminate social media information. Develop users to form good habits by implementing education on first-time user experience. It allows users to have a deeper understanding of the media, realize the differences in the quality of multimedia information, and be more vigilant in reading information to enhance their ability to recognize it; it advocates users to enhance their self-restraint through personal effective time management and self-monitoring strategies to reduce their over-dependence on social media. Further, to enhance the ability of emotional regulation and self-reflection to recognize and appropriately handle negative emotional responses triggered by social media; to encourage the active use of social media and the selection of beneficial content and accounts to follow, in order to promote meaningful social interactions and the development of personal interests. These measures are effective in enhancing the health of individuals interacting with social media and promoting psychological well-being.

At the social media platform level, research recommendations focusing on the design and implementation of features that promote positive interactions were emphasized as having a positive impact on enhancing user experience, satisfaction, and user stickiness. For example, encouraging positive feedback and building supportive communities to enhance user experience and emotional state; it is recommended that platforms consider the basic needs of users, and that platforms should reduce excessive connectivity that may trigger user stress, so that users can enjoy the convenience of socializing while avoiding feeling overly intrusive. The use of big data and algorithms to monitor user needs and provide personalized services in a targeted manner can enhance user engagement; high importance should be attached to content auditing, and relevant systems and technical means should be continuously improved to create a healthy, civilized and harmonious cyberspace for the majority of Internet users. Explore the use of a combination of advanced algorithms and manual review to effectively identify and reduce harmful content and protect users from negative emotions.

At the national societal level, this study advocates strengthening societal awareness of the potential negative impacts of social media, especially on the mental health of adolescents and college students, through public education and awareness campaigns. The government and relevant authorities should formulate and implement policies and regulatory measures for social media platforms to reduce the spread of

harmful content. At the same time, academic research on the impact of social media should be encouraged and supported to explore in depth its long-term effects on individuals and society. In addition, promote joint collaboration among governments, educational institutions, social organizations, and social media platforms to develop effective intervention strategies to promote the mental health and well-being of members of society, especially adolescents and college students. These recommendations aim to enhance a comprehensive understanding and effective management of social media use and its impact across society.

It is worth noting that strengthening online regulation and privacy and security protection is at the core of improving the quality of the social media environment. This process involves a wide range of areas: firstly, enhancing public trust through the disclosure of government information and the promotion of government transparency; and secondly, fostering responsible online communities by improving the media literacy of the general public and strengthening news monitoring and the dissemination of positive values. In addition, the improvement of legal norms is crucial for a clean online environment and the protection of personal privacy. Technological advances need to be centered on user privacy protection, preventing data abuse and ensuring information security. These comprehensive strategies aim to build a safe, transparent and beneficial social media ecosystem and promote a healthy and productive online communication environment.

5.3 Limitations and Future Research Direction

The research limitations and research perspectives of this study mainly include sample bias and limitations, limitations of research methodology, unconsidered influencing factors, cross-cultural and cross-age studies, studies of long-term effects, and considerations of technological development.

First of all, in this study, we selected the research population as undergraduate students in a comprehensive university in Southwest China, and this sample selection is limited to some extent. From a geographical point of view, the geographical distribution of the study sample is relatively homogeneous. Although the study population covers students from various provinces in China, however, there are differences in their geographic environments, levels of economic development, and cultural backgrounds. These differences may have an impact on the results of the

study, making them not generalizable in some aspects. From a cultural perspective, the cultural background of the study sample also has some limitations. Since we conducted the study only on undergraduate students, there may be differences in the education, values, and habits of these students as they grow up. The age perspective is also an issue that cannot be ignored. This study focuses on undergraduate students, all of whom fall into the age group of 18 to 23 years old, which means that the findings may not be applicable to other age groups. As individuals age, there are cognitive and psychological changes that may invalidate the results of the study. These differences may also have an impact on the results of the study, making the generalizability of the results to the cultural level limited. Despite the limitations in sample selection, we believe that through rigorous analysis of the research methodology and data, we can still reveal to a certain extent the patterns of undergraduate students' negative emotions, rational thinking, and objective judgments induced by social media in the face of social media. In order to make the results of the study more generalizable and replicable, it is suggested that in future studies, researchers can try to expand the cross-cultural, cross-age, and cross-regional sample research scope of the samples, so as to provide more comprehensive and targeted theoretical support for the mental health education of college students in China.

Second, questionnaires and data analysis methods may limit in-depth understanding of college students' emotions and perceptions. The advantages of questionnaires are that they are easy to administer, less costly, and can collect large amounts of data quickly. Questionnaire and data analysis methods have limitations in exploring college students' emotions and cognition. For example, questionnaire surveys are easily influenced by psychological factors of the subjects, such as response attitude and subjective consciousness. These factors may cause the survey results to deviate from the actual situation, thus affecting the accurate understanding of college students' emotions and cognition. Data analysis relies on raw data, and if the data quality is not high, the reliability of the analysis results will be affected. In summary, questionnaire survey and data analysis methods have certain limitations in exploring college students' emotions and cognition. In order to have a more comprehensive and in-depth understanding of the development of college students' emotions and cognition, it is necessary to keep exploring new research methods and combining multiple methods for comprehensive analysis in future studies. In addition,

this study should also pay attention to various influencing factors in the process of questionnaire design and data analysis, and be committed to improving the reliability and accuracy of the study. We hope to better reveal the inner mechanisms of college students' emotions and cognition, and provide strong support for mental health education and talent cultivation.

In addition, variables such as individual mental health status, family background, and social network diversity may not have been adequately considered in the study. Future research should explore how college students of different cultures and ages are affected by social media and the role of technological developments, especially artificial intelligence and algorithms, in content distribution. To address these limitations and future directions, it is recommended to expand the sample size, adopt mixed-methods research, innovate data collection methods, explore new research dimensions, and consider the roles of social media platforms and educational institutions, as well as policy recommendations to promote a healthy and rational social media environment.

To gain a deeper understanding of the impact of social media on college students, future research should explore how college students of different cultures and age groups are affected by social media. This includes examining college students' acceptance of social media, their usage habits, and the impact of social media on their mental health, interpersonal relationships, and academic performance in different cultures. In addition, we should also focus on technological developments, especially the role of artificial intelligence and algorithms in content distribution, to understand how they affect the lives and behaviors of college students.

In terms of research methodology, the sample can be expanded in the future and mixed-methods research can be used to improve the reliability and representativeness of the study. Mixed-methods research can combine quantitative and qualitative research to provide a more comprehensive understanding of the impact of social media on college students. Meanwhile, innovative data collection methods are also very important, such as the use of questionnaire surveys, in-depth interviews and network data analysis, etc., in order to obtain richer and more authentic research data.

In terms of research dimensions, we can explore new research directions, such as studying the impact of social media on college students' values, network literacy and information acquisition ability. These new dimensions can help us understand the role

of social media in college students' lives more comprehensively, so as to provide more targeted suggestions for educational policies and practices.

In addition, we should also focus on the roles of social media platforms and educational institutions, as well as policy recommendations. The challenge that education authorities and social media companies need to face together is how to guide and educate college students to use social media correctly and create a healthy and rational social media environment.

In conclusion, by expanding and deepening existing research, we can gain a more comprehensive understanding of the impact of social media on college students and provide targeted recommendations for educational policies and practices. This will help promote the healthy and rational use of social media among college students, thus realizing personal growth and social progress.

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Appendix

Research Questionnaire—Chinese Version

关于社交媒体诱发的负面情绪对大学生理性思维和客观判断的影响调查问卷

各位在校大学生：

您好！

首先感谢您在百忙之中填写此份问卷，我们正在进行一项学术研究的调查工作，旨在了解我国大学生群体在使用社交媒体时诱发的负面情绪对于大学生理性思维和客观的影响，希望您能腾出 5-10 分钟时间，为我们的研究提供宝贵的真实数据。本次调查采取匿名方式，问题的答案没有正误之分，请根据您的实际情况进行回答。

我们保证：此次调查研究数据仅用于学术研究，不会在任何情况下公开个人的相关信息，同时此次调查研究所获得的数据不会用于任何商业用途。在进行问卷调查前，请仔细阅读以下文字，以确保提高问卷调查的质量。

社交媒体，作为现代社会中最普遍的沟通和信息分享平台，已经成为大学生日常生活的一部分。然而，这一平台不仅传递信息和促进交流，也成为了负面情绪的来源。由社交媒体诱发的负面情绪指的是用户在浏览和互动过程中所体验到的诸如焦虑、悲伤、愤怒或羡慕等不良情绪反应。这些情绪可能源于对社交媒体上他人生活的比较、负面新闻的接触、或是网络暴力等。

理性思维是指基于逻辑和证据做出判断和决策的能力，而客观判断则要求个体在评估情况或作出决策时能够排除个人偏见和情绪影响，保持公正和中立的态度。然而，由社交媒体诱发的负面情绪可能会对这两种能力产生负面影响。例如，一个学生在浏览到其他同龄人在社交媒体上展示的成功和幸福生活后，可能会感到自卑和羡慕，这种情绪状态可能干扰他的理性思维，使得在面对自己生活和学业决策时，难以保持客观，而是受到情绪的影响，导致决策的质量下降。

通过了解和分析这种影响的具体情况和程度，我们可以探索有效的应对策略，帮助大学生在利用社交媒体的同时，维护自己的心理健康和决策能力。我们真诚邀请您参与这项调查，分享您的经验和感受，共同探讨如何在数字时代保持理性和客观。

如果您对本项研究的研究结论感兴趣，可以与我们联系，我们会在研究结束后将研究结果发送给您。邮箱：82247204@qq.com

第一部分：人口信息统计

1. 您的性别：男 / 女
2. 您所学的专业：文科/理科
3. 您通常使用哪些社交媒体平台获取信息？

- 微博 - 抖音 - 微信 / QQ - 其他（请列出）

4.您每天使用社交媒体的平均时间是多少？

A.1 小时以下 B.1-2 小时 C.2-3 小时 D.3 小时以上

第二部分:主要问题

维度	题序	内容/要素	非常不同意	不同意	没意见	同意	非常同意
社交媒体引起的负面情绪							
自我情绪的评估与表达能力	5.	通常我能知道自己会有某些感受的原因。	1	2	3	4	5
	6	我很了解自己的情绪。	1	2	3	4	5
	7.	我真的能明白自己的感受。	1	2	3	4	5
	8.	我常常知道自己为什么觉得开心或不高兴。	1	2	3	4	5
对他人情绪的识别和评估能力	9.	遇到困难时，我能控制自己的脾气。	1	2	3	4	5
	10.	我很能控制自己的情绪。	1	2	3	4	5
	11.	当我愤怒时，我通常能在很短的时间内冷静下来。	1	2	3	4	5
	12.	我对自己的情绪有很强的控制能力。	1	2	3	4	5
理性判断							
理性维度	13.	我擅长仔细推理	1	2	3	4	5
	14.	我总是喜欢思考。	1	2	3	4	5
	15.	我喜欢智力挑战。	1	2	3	4	5
	16.	我擅长解决复杂的问题	1	2	3	4	5
	17.	我是一个善于分析的思考者	1	2	3	4	5
经验维度	18.	利用直觉通常可以很好地帮助我解决生活中的问题。	1	2	3	4	5
	19.	当我听从内心深处的直觉去寻找答案时，都是对的。	1	2	3	4	5
	20.	在决定一个行动方案时，我经常按照自己的直觉行事。	1	2	3	4	5
	21.	我相信自己对人的第一感觉。	1	2	3	4	5
	22.	说到信任别人时，我通常可以依靠自己的直觉。	1	2	3	4	5
客观判断							

	23.	我会根据自己的兴趣偏好，定制社交媒体推送显示的信息。	1	2	3	4	5
筛选能力维度	24.	我会编辑我的社交媒体推送，以便让我看到对我重要的信息。	1	2	3	4	5
	25.	我会设置我的社交媒体推送，以显示我感兴趣的信息。	1	2	3	4	5
	26.	我会在社交媒体上搜索我感兴趣的信息。	1	2	3	4	5
	[illegible]	[illegible]准确性。	1	2	3	4	5
	28.	我可以批判性地评估社交媒体上消息内容的真实性。	1	2	3	4	5
评估能力维度	29.	我可以批判性地评估社交媒体消息来源的可信度。	1	2	3	4	5
	30.	我可以批判性地评估社交媒体消息来源的可信度。	1	2	3	4	5
	31.	我可以理解社交媒体上的复杂内容。	1	2	3	4	5
理解能力维度	32.	题的帖子。我可以理解来自社交媒体上更复杂的话	1	2	3	4	5
	33.	系。我可以理解在社交媒体上提到的复杂关	1	2	3	4	5
	34.	题。我可以理解社交媒体中表达的复杂问	1	2	3	4	5

Original Version Questionnaire—CH& Eng Version

变量 1 原始量表

维度	序号	题项
自我情绪的评估与表达能力	1	通常我能知道自己会有某些感受的原因。
	2	我很了解自己的情绪。
	3	我真的能明白自己的感受。
	4	我常常知道自己为什么觉得开心或不高兴。
对他人情绪的识别和评估能力	5	遇到困难时，我能控制自己的脾气。
	6	我很能控制自己的情绪。
	7	当我愤怒时，我通常能在很短的时间内冷静下来。
	8	我对自己的情绪有很强的控制能力。
自我情绪管理能力	9	我通常能为自己制定目标并尽量完成这些目标。
	10	我经常告诉自己是一个有能力的人。
	11	我是一个能鼓励自己的人。
	12	我经常鼓励自己要做到最好。
情绪运用能力	13	我通常能从朋友的行为中猜到他们的情绪。
	14	我观察别人情绪的能力很强。
	15	我能很敏锐地洞悉别人的感受和情绪。
	16	我很了解身边的人的情绪。

变量 2 原始量表

序号	题项
Rational Ability	
1	I’m not that good at figuring out complicated problems(-)
2	I am not very good at solving problems that require careful logical analysis(-)
3	I am not a very analytical thinker(-)
4	Reasoning things out carefully is not one of my strong points(-)
5	I don’t reason well under pressure(-)
6	I am much better at figuring things out logically than most people
7	I have a logical mind
8	I have no problem thinking things through carefully

9	Using logic usually works well for me in figuring out problems in my life
10	I usually have clear, explainable reasons for my decisions
Rational Engagement	
11	I try to avoid situations that require thinking in depth about something(-)
12	I enjoy intellectual challenges
13	I don't like to have to do a lot of thinking(-)
14	I enjoy solving problems that require hard thinking
15	Thinking is not my idea of an enjoyable activity(-)
16	I prefer complex problems to simple problems
17	Thinking hard and for a long time about something gives me little satisfaction(-)
18	I enjoy thinking in abstract terms
19	Knowing the answer without having to understand the reasoning behind it is good enough for me(-)
20	Learning new ways to think would be very appealing to me
Experiential Ability	
21	I don't have a very good sense of intuition(-)
22	Using my gut feelings usually works well for me in figuring out problems in my life.
23	I believe in trusting my hunches
24	I trust my initial feelings about people
25	When it comes to trusting people, I can usually rely on my gut feelings
26	If I were to rely on my gut feelings, I would often make mistakes(-)
27	I hardly ever go wrong when I listen to my deepest gut feelings to find an answer
28	My snap judgments are probably not as good as most people's(-)
29	I can usually feel when a person is right or wrong, even if I can't explain how I know
30	I suspect my hunches are inaccurate as often as they are accurate(-)
	Experiential Engagement
31	I like to rely on my intuitive impressions
32	Intuition can be a very useful way to solve problems
33	I often go by my instincts when deciding on a course of action
34	I don't like situations in which I have to rely on intuition(-)
35	I think there are times when one should rely on one's intuition
36	I think it is foolish to make important decisions based on feelings(-)
37	I don't think it is a good idea to rely on one's intuition for important decisions(-)
38	I generally don't depend on my feelings to help me make decisions(-)
39	I would not want to depend on anyone who described himself or herself as intuitive(-)
40	I tend to use my heart as a guide for my actions

变量 3 原始量表

序号	题项
Navigation	
1	Searching social media accounts, blogs, or groups so that I can quickly find new information.
2	Using social media search functions in a way that helps me find new information quickly.
3	Browsing social media platforms in a way that helps me find new information quickly.
4	To navigate my social media environment in a way that allows me to quickly find new information.
Curation	
5	Customize the displayed content of my newsfeed to my interests.
6	Compiling my newsfeed so that I see content that is important to me.
7	Configuring my newsfeed to show me interesting content.
8	Influencing the content displayed in my news feed to match my interests.
Appraisal	
9	Critically reviewing post content for accuracy.
10	Critically examining the content of posts for their truthfulness.
11	Critically examining the credibility of post sources.
12	Critically evaluating the trustworthiness of post sources.
Comprehension	
13	Also understanding complex content that people post on my network.
14	Understanding posts on more difficult topics.
15	Also understanding complicated relationships addressed in posts.
16	Understanding complex issues conveyed in posts.
Creation	
17	Creating videos that I could share on social media.
18	Creating photos that I could share on social media.
19	Creating graphics or edited images that I could share on social media.
20	Creating GIFs that I could share on social media.
Interaction	
21	Encouraging other people on social media to engage in conversation with me.
22	Participating in discussions on social media.
23	Interact with others on social media.
24	Discussing with my social media contacts.

Biographic Data of Author

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