



The Values and Cultural Characteristics of Defense Mechanisms in the COVID-19 Epidemic

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Abstract

Over the past three years, people have suffered from unimaginable psychological stress and anxiety caused by the COVID-19 epidemic. These stresses and anxieties stem from the threat that COVID-19 poses to people's health and lives, as well as the negative impact of the government's lockdown and quarantine policies on social economy and development. All these factors may put people in a state of stress and anxiety for a long time. However, any perceived stress can trigger the individual's self-defense mechanism. To reduce anxiety from the epidemic, the automatic psychological processes are involuntarily activated, and the defense mechanisms are at work. This paper examines the performance of defense mechanisms during the epidemic based on news reports and the theory of defense mechanisms and illustrates the practical role and significance of understanding defense mechanisms for the public. Additionally, this paper also takes into account the potential cultural features of defensive systems.

Keywords: COVID-19; Defense mechanisms; Anxiety; Stress; Behavior; Culture.

1. Introduction

On December 31, 2019, unexplained pneumonia occurred in Wuhan, Hubei Province, China (Sohrabi *et al.*, 2020). Subsequently, the World Health Organization (WHO) named the disease COVID-19, and on 11 March 2020, officially declared COVID-19 a pandemic. As of September 2022, the pandemic has killed more than 6 million people and infected as many as 600 million people around the world (WHO, 2022). In the past three years or so, various public health measures, such as social distancing, isolation, and quarantine, have been implemented by governments to contain the spread of the virus and reduce the increasing burden on health systems (Denckla *et al.*, 2020). Despite this, the impact of the COVID-19 epidemic on human beings and society still has been devastating. COVID-19 will not only destroy the human health system but also cause psychological trauma to those who have lost their loved ones. However, it is not entirely a trauma, but a constant worry that comes with intense stress and anxiety (Blackman, 2020). Although the death rate caused by COVID-19 has been brought under control with the popularity of vaccines, the world economy has been hit hard over the past three years, and the social system has been still under tremendous pressure. According to Denckla *et al.* (2020), the epidemic situation of COVID-19 accords with the remarkable characteristics of traumatic events. Meanwhile, evidence suggests that exposure to traumatic stressors has profound effects on people's long-term mental and behavioral health. According to Blackman (2020), the reality of a potentially life-threatening disease makes everyone frightened. The COVID-19 pandemic is an objective and real danger, which brings long-term pressure, and any perceived pressure can trigger defense mechanisms (Walker and McCabe, 2021). This pressure stems from COVID-19's threat to the health and lives of people, or the negative impact of governments' lockdown and quarantine policies on the social economy, such as the

economic pressure caused by unemployment, the sense of loneliness caused by lack of social interaction, etc. Besides, the epidemic has also caused social problems such as discrimination. All these factors may put people in a state of pressure and anxiety for a long time, and all the perceived stress and tension can provoke psychological defense mechanisms. The essence of the defense mechanisms is that the ego unconsciously controls the impulse of the id to cope with anxiety and prevent the individual from being harmed. Therefore, to reduce anxiety from the epidemic, people involuntarily activate automatic psychological processes as defense mechanisms, and these defense mechanisms may have impacts on people's mental health. However, these impacts can be healthy or unhealthy, depending on the situation and frequency in which the mechanism is used (Walker and McCabe, 2021). According to Blackman (2020), the COVID-19 pandemic has stimulated large-group phenomena, especially some defensive reactions that are triggered by the epidemic. The study of group defense behavior during the COVID-19 epidemic not only helps individuals to seek better strategies to cope with stress and anxiety but also provides research hypotheses for further research on cultural differences in the expression of defense mechanisms.

2. Literature Review

In psychodynamic research, defense mechanisms always occur with anxiety. According to Freud (1926), the function of anxiety is to signal danger to the ego, and when this signal is present in consciousness, the ego can take steps to deal with the danger. While anxiety is painful, it serves to alert an individual to the presence of internal and external dangers. People can use this to avoid danger. But if the danger is unavoidable, the anxiety may build up to eventually overwhelm the ego. When this situation occurs, the person is said to have a nervous breakdown (Hall, 1954). In other words, people's experience of being overwhelmed by anxiety raises their nervous breakdown. Freud (Freud, 1933; Hall, 1954) described anxiety as an affective state and divided it into three categories: objective anxiety, neurotic anxiety, and moral anxiety. Objective anxiety is a painful emotional experience that is caused by practical difficulties or dangers. The third form is common in panic reactions or near-panic reactions. Moral anxiety is experienced as feelings of guilt and shame in the ego, which is caused by the conscience's perception of danger. Freud's research mainly focused on neurotic anxiety. During his research, he found psychological defense processes closely related to anxiety, that is, what is later called the defense mechanisms, also known as the ego defense mechanisms. The term "defense" can be regarded as one of the earliest dynamic viewpoints in psychoanalytic theory, which was first proposed by Freud in *The Neuro-Psychoses of Defense* (Freud, 1894). In 1926, Freud changed his view of anxiety in his article "Inhibition, Symptoms, and Anxiety". Before 1926, neurotic anxiety, according to Freud, had nothing to do with danger; and the process of repression could convert libido into anxiety, but it was never explained how this could happen. He believed that anxiety occurred only if the repression failed and there was a return of the repressed. In 1926, Freud recognized that early childhood repression, or primitive repression, was associated with dangerous situations, and one result of these changes was that both normal and neurotic anxiety was now associated with the perception of danger. He also abandoned his view that anxiety was a transformed libido and that repression could occur without anxiety. In other words, Freud came to view anxiety as a cause of repression and other defenses rather than their consequence. Meanwhile, in the article "Inhibition, Symptoms, and Anxiety", he revised and expanded the concept of defense and recognized that repression is one of many defense mechanisms. In addition, Freud further described and summarized several other defense mechanisms, such as regression, isolation, withdrawal, and reaction formation. He believes that these observations provide sufficient reason for him to reintroduce the old concept of defense since they could encompass all these processes with the same purpose, that is, to protect the ego from instinctive demands and to include repression as a special case [6]. In short, before 1926, repression and defense were used as synonymous terms, and reaction formation, undoing, projection, etc. only reinforced repression. But after 1926, the defenses became the focus of more important and detailed attention.

Freud (1966), expanded the concept of defense mechanisms based on her father's research. In her book "The Ego and the Mechanisms of Defense," published in 1936, she described how the ego resists displeasure and anxiety through the defense mechanisms and controls impulsive behaviors, influence, and instinctive impulses. Wallerstein (1983), believes that Anna Freud has established her landmark contribution in this field. This is because, firstly, in terms of theory, Anna Freud attaches importance to the role of the ego and regards the ego as a medium for understanding the id and the superego. She systematically summarized the defense mechanisms mentioned by Freud and put forward new types of defense mechanisms. Later studies of the types of defense mechanisms are almost always based on these. In addition, Anna Freud elaborated on the object and motivation of ego defense. Second, in her clinical work, she found that there are certain rules for how to use ego defense mechanisms. When faced with the same problems, different people may use different defense mechanisms. She believed that there was a regular link between specific neuroses and specific defense mechanisms, such as hysteria and depression, obsessive-compulsive disorder and isolation, reaction formation, etc. Meanwhile, she also enumerated ten important defense mechanisms: regression, repression, reaction formation, isolation, undoing, projection, introjection, turning against the self, reversal, and sublimation, in which she pointed out that sublimation pertains more to the research of the normal than to that of neurosis. In addition, she also proposed two new defense mechanisms: identification with the aggressor and altruism. The former provides a way to think about children's aggressiveness that does not rely on the concept of aggressive instincts or death instincts. The latter, also known as altruistic surrender, was originally a social phenomenon, but as a defense mechanism, it is related to anxiety about death. According to Anna Freud, in the process of altruism, the individual's inner anxiety about life is projected onto others, and in the process of caring for the safety of others, the individual's fear of death is alleviated. According to Freud (1966), the ego is victorious when the ego successfully limits the development of anxiety and displeasure with the help of defense mechanisms or

enables the individual in difficult conditions to gain satisfaction using the transformation of instincts. Thus, establishing the most harmonious relationship possible between the id, superego, and the forces of the outside world.

There are many kinds of defense mechanisms that have been constantly discovered and summarized in the development of psychoanalysis. Furthermore, defense mechanisms are also increasingly being studied and applied in other areas of psychology, and their definitions have been continuously improved and expanded. For instance, according to the American Psychiatric Association ([American Psychiatric Association, 2000](#)), a defense mechanism is defined as an "automatic psychological process that protects the individual against anxiety and from awareness of internal or external stressors or dangers" (p.821). At the same time, the defense mechanisms are also thought "to mediate the individual's reaction to emotional conflicts and external stressors" (p.821). In the *Comprehensive Dictionary of Psychology* compiled by Lin, Yang, and Huang ([Lin et al., 2003](#)), defense mechanisms are interpreted as the unconscious psychological reactions of individuals to cope with various stressors, to prevent or reduce the psychological stress of anxiety or guilt, and to maintain mental peace. Besides, [Cramer \(2015\)](#) also elaborates on the definition of defense mechanisms from three perspectives. Firstly, they are mental operations that take place outside of consciousness. Secondly, the function of the defense mechanisms is to protect people from experiencing excessive anxiety. And finally, another function of the defense mechanisms is to protect self-esteem and to protect the integration of the self in more extreme cases.

Sigmund Freud and Anna Freud established the foundations for the study of defense mechanisms, and a growing number of psychologists have built on their work. George Vaillant is well known for his extensive work on defense mechanisms. He argues that Freud discovered most of the defense mechanisms we know today in forty years, and his study is built on the work of Freud and his daughter. He drew on psychoanalytic theory to broaden the field of defense mechanisms research. According to his research, [Vaillant \(1992\)](#) identified the five most significant properties of defense mechanisms: that defenses are a primary means of managing instincts and emotions; that defenses are unconscious; that they are separate from each other; that although defenses are often distinguishing features of major psychiatric symptoms, they are dynamic and reversible; that defenses can be either adaptive or pathological. And these properties of defense are constantly rediscovered by every psychodynamic researcher ([Vaillant, 1992](#)). In 1971, Vaillant studied the self-adaptation processes of 30 male adults who had been followed up for 30 years ([Vaillant, 1971](#)). He suggested that the defense mechanisms could be divided into a 4-tiered hierarchy. At the bottom level are the narcissistic defenses, which involve an attempt to deal with reality through psychological escapism. The defense mechanisms belonging to this level are considered to be the unhealthiest, such as delusional projection, psychotic denial, and distortion. These defense mechanisms are common in overt psychosis. Those at the second level are immature defenses, including acting out, passive aggression, hypochondriasis, schizoid fantasy, and projection. These immature defenses can cause serious problems in people's effective coping capabilities if overused, and they are common in major depression and personality disorders ([Vaillant et al., 1986](#)). The third level includes neurotic defenses. This level of defense functions to keep potentially threatening thoughts or feelings out of consciousness. Examples are displacement, repression, dissociation, intellectualization, and reaction formation. These defense mechanisms are usually manifest in phobias, obsessive-compulsive disorder, etc. At the highest level, we find mature defenses, and the use of these defenses tends to increase with age. Although some of them originate from an immature stage of development, they are still considered mature because these defense mechanisms have been adjusted over the years to optimize people's lives and relationships. They are considered to be conscious processes, and the use of these defenses enhances the sense of pleasure and control. These defense mechanisms can also help to integrate conflicting emotions and thoughts. They include sublimation, altruism, humor, suppression, and anticipation.

In 2004, Jerome S. Blackman, an American psychiatrist, and psychoanalyst listed 101 defense mechanisms in his book "*101 Defenses: How the Mind Shields Itself*", but he believed that there are far more than these listed, that is, they are to some extent countless. [Blackman \(2004\)](#), believes that the defense mechanism has a dual role, including positive and negative aspects. The defense mechanism is characterized by the nature of self-deception, via which the individual can disguise or dissimulate their real motives or deny the existence of impulses, actions, or memories that cause their anxieties. Therefore, the defense mechanisms protect individuals from anxiety by distorting perception, memory, action, motivation, and thinking, or even completely blocking psychological processes. In other words, it is also a method of psychological self-defense. It is believed that the defense mechanism itself is not a pathological factor directly affecting the pathological state, but the change of normal defense function may lead to it. This is similar to Anna Freud's view that when the defense mechanisms are overused or improperly used, they can no longer help the development of self-limiting anxiety, resulting in an imbalance between the id, superego, and objective reality, thereby leading to pathological symptoms.

The concept of defense mechanisms was initially considered and used in psychoanalysis and psychoanalytic psychotherapy. However, it is now widely used in daily psychology and psychiatry ([Colovic et al., 2016](#)). Especially in the field of mental health research, more and more psychologists are beginning to pay attention to the relationship between defense mechanisms and mental health. And many theoretical and empirical studies have also found that defense mode is indeed one of the important factors affecting individual mental health. As Anna Freud ([Freud, 1966](#)) showed, if the ego can balance the id, superego, and reality through the operation of defense mechanisms and make them harmonious, the individual will reach a state of mental health. For Vaillant, the defense mechanisms are a continuum from diseased to healthy ([Vaillant, 1971;1976](#)). He believes that in the face of stress and emergencies, understanding different levels of defense also allows us to help others more rationally. People should respect mature defenses and learn to admire and nourish them because mature defense ability is related to individual mental health ([Vaillant, 1977](#)). In addition, [Vaillant et al. \(1986\)](#) empirically tested the effectiveness of the ego defense mechanisms as an explanatory concept for mental health. They find that defenses are not just

psychopathological epiphenomena, which reflect actual homeostatic processes. And the style of defense provides an independent dimension of mental health. According to Vaillant (2003;2012), mature defenses distort and change feelings, conscience, relationships, and reality, but they are all components of positive mental health. Besides, Bowins (2006) also thought that defense mechanisms, as a moderator of negative emotions, play a greater role in mental health than previously thought. He further explained: "the combination of human intelligence amplifying emotions generally and a greater likelihood of experiencing negative over positive primary and perhaps secondary emotions creates a need for psychological defense mechanisms capable of acting continually to preserve mental health" (p.190) (Bowins, 2006). According to Cramer (2006), defense mechanisms are a part of normal development and are necessary for normal development. Although an abnormally heavy reliance on defense mechanisms may be a sign of psychopathology, the use of defenses at a normal frequency is necessary for daily healthy adaptation. Han (Han, 1994), a Chinese researcher, also believed that defense mechanisms have an important relationship with mental health. In particular, positive defense mechanisms are especially helpful for individuals to resist the damage (caused by negative emotions such as tension, anxiety, sadness, and fear) to maintain emotional or psychological balance to reduce anxiety to a minimum when people cannot effectively control the situation. Yang (2021), also considered that defense mechanisms are one of the self-protection functions developed by human psychology to cope with anxiety in the process of adaptation, and they play an important role in people's normal development and mental health. Only when it is overused does it mean that there is a problem.

Overall, defense mechanisms play an important role in maintaining normal mental health. Therefore, individuals must understand the performance of defense mechanisms. Blackman (2004), pointed out that it is valuable to know how defense mechanisms work in life because identifying some of the defense mechanisms in life can help individuals solve specific problems in practice. For example, staying away from potentially dangerous activities or providing immediate comfort to a sad person. According to Vaillant (1977), having more knowledge of defense mechanisms enables us to assist others in a more reasoned manner when faced with stress and crisis. In addition, Yang (2021) proposed the role and significance of individual understanding of defense mechanisms from three aspects: promoting individuals to face up to and accept themselves, helping individuals to keep up with the second reaction, and helping people to deal with interpersonal relationships rationally.

In conclusion, the study of defense mechanisms originated from psychoanalysis and was initially seen in psychopathology research, but more and more studies have shown that they are not pathological. On the contrary, they are crucial in preserving psychological well-being. At the same time, it is not difficult to find that many factors are affecting the defense mechanisms in this research, such as social conditions, major life events, personality characteristics, cultural differences, and so on. Watson (1974), finds in his research that defense mechanisms are universal in the process of human development no matter how the cultural background changes, but in each unique social environment, cultural factors determine the expressive forms of defense behaviors. The research of Tori and Bilmes (2002) based on Thai culture also proved that the concept of defense mechanisms has a wide range of cross-cultural applicability. Thus, consideration of culture is also valuable in the study of defense mechanisms. Although much literature has shown the significance of defense mechanism research, it must be admitted that there is very little research literature in China, just as Scharff (2016) found that the psychoanalytic literature in China is young and still relatively limited. As far as the research on defense mechanisms is concerned, there is some research in China on the relationship between personality traits, mental health, and mental health education. Defense mechanisms, in particular, are thought to play a critical role in school education for students to resist frustration, reduce stress, and maintain mental health (Huang and Li, 2011; Yang, 2003; Zhao *et al.*, 2001; Zhong *et al.*, 2012; Zhou and Wang, 2008). However, there is still very little literature related to the topic, and the number of studies on this theme is very limited. Furthermore, there is virtually no research literature on the relationship between Chinese culture and defense mechanisms. Despite this, I still think it is very meaningful to study the defense mechanism in the context of Chinese culture, especially because of the global outbreak of the COVID-19 pandemic. This is an objective reality problem, and everyone is facing the objective anxiety brought on by the epidemic. Therefore, this is a great chance to think about how Chinese people defend themselves in their culture.

3. Methods

This paper uses a qualitative research method drawn from educational studies—the documentary method. This method fits into the "boundary-spanning" period described by Kent and Flint since it focuses on understanding behavioral issues (Trautrimis *et al.*, 2012). The documentary method falls within a social constructionist perspective methodology, which may be used to extrapolate more extensive theoretical knowledge (Trautrimis *et al.*, 2012). Firstly, the author collects and sorts out pertinent news reports and literature during the COVID-19 epidemic in Wuhan, China in 2019. Besides, the author also gathers and organizes some news stories and documents about the COVID-19 epidemic in countries other than China. Secondly, to make a comparative analysis of people's conduct in news reports with several main defense mechanisms proposed by Freud and Anna Freud, and to describe the specific performance of each one in detail. Combining relevant research theories and cultural background, the author concludes by making additional explanations, reflections, and ratiocinations on the research materials. In this research, the author selects reputable official news reports wherever feasible to ensure the accuracy and reliability of the study materials. News reports, however, have not received the same level of criticism as articles in peer-reviewed journals. Therefore, the risk of data bias from news reports will increase. Even so, the specific circumstances of a phenomenon can still be discovered to some extent. It has a positive impact on the study of the phenomenon, thus laying the foundation for further in-depth and targeted research.

4. The Defense Mechanisms Under Covid-19

People have been facing unpredictable pressures and anxiety during the epidemic. Because whether it is the health care system or the socio-economic system, even the system of government management, all countries have no experience in dealing with COVID-19 at the beginning. For people who have experienced the disease and those who have lost close relatives to the disease, COVID-19 was undoubtedly a trauma. For others, however, this is not entirely a trauma, but a persistent worry accompanied by intense stress (Blackman, 2020). Santabárbara *et al.* (2021), did a meta-analysis of the prevalence of anxiety in the COVID-19 epidemic and found that the overall global prevalence of anxiety is usually estimated to be 7.3%, but anxiety rates in the general population can be more than 3 times higher during the COVID-19 pandemic. Wang *et al.* (2020), surveyed 1,210 respondents from 194 cities in the initial stages of the epidemic in China, and the results showed that 28.8% of them were reported to have moderate to severe anxiety symptoms. When anxiety informs the danger in the form of emotional signals, the ego can reshape psychological processes by harnessing various defensive activities to restrain instinctive impulses (Sun, 2020). These defensive behaviors are the forms of expression of the work of the defense mechanism, and they can help people alleviate the anxiety caused by the COVID-19 epidemic. Therefore, in the face of this common objective anxiety during the COVID-19 outbreak, it is easy to observe the behaviors and activities of the people related to the defense mechanism. The specific cases are as follows:

4.1. Denial

Although there are more and more news reports on the virus and the government is constantly updating the latest developments of the epidemic, many people are still reluctant to admit the existence of the epidemic, especially in the early stages of the Covid-19 epidemic. From a cognitive perspective, it is easier to deny that the virus is a real threat (Walker and McCabe, 2021). Therefore, whether in China or other countries, many people think that preventive measures are not necessary. The most common phenomenon is that many people refuse to wear masks in public and comply with social distance rules, and even many people think that COVID-19 is a lie. Whether in China or western countries, there are many cases of people being punished for violating epidemic prevention regulations. According to Beijing Daily (2020), the Wuhan Public Security Bureau investigated and punished several people who violated epidemic prevention regulations, such as someone who was forced to rush out of an isolated community. British police arrested 104 people in London for breaching coronavirus regulations. Meanwhile, more arrests are expected as police operations continue (Reuters, 2020). A large part of the reason why people violate the government's lockdown and quarantine regulations may be that their unconscious still denies the existence of COVID-19. Discovery Magazine (2021) believes that people are in an era of pandemic skepticism and rejection of public health advice, and some people in society deny the facts in front of them. All these phenomena reflect that in the face of the threat of the epidemic, the denial mechanism has played a role in people's unconsciousness. To alleviate anxiety about the virus and lockdown regulation, their unconscious denies the existence of the epidemic.

4.2. Regression

In the epidemic, especially during the lockdown and quarantine, many people are found to have some seemingly naive behaviors. When they encounter problems, they give up their mature coping style and let themselves go back to being children. Blackman wrote: "A psychologist colleague in Wuhan said that some isolated people 'act like babies'" (p126) (Walker and McCabe, 2021). In addition, as schools have closed and moved to online teaching, students are forced to change their learning and lifestyles. At the same time, due to the lack of normal social interaction and teacher supervision, some students are addicted to the Internet and games. They might temporarily forget the difficulties in reality by playing online games or surfing the Internet. According to statistics, from January to March 2020 (the lockdown period), public demand for online games soared and game consumption increased by more than 40% year-on-year (Southern Metropolis Daily, 2020). Therefore, this sudden phenomenon of Internet addiction can be seen as a regression.

4.3. Undoing

Undoing refers to the repeated use of some symbolic behaviors to eliminate the unpleasantness that has already occurred, thereby reducing anxiety. People with obsessive-compulsive disorder often show frequent undoing behaviors, such as repetitive hand-washing or other ritualistic behaviors to offset their unconscious worries, anxieties, and even fears (Yang, 2021). The most obvious manifestation of the undoing mechanism during the epidemic is forced disinfection and cleaning. It is a common phenomenon that people force themselves to wash their hands repeatedly and use alcohol or other disinfection products to disinfect various items repeatedly during this period. Compulsive cleaning can alleviate people's fear that the virus is infecting various indoor items because the virus can be transmitted through droplets, pollutants, media, and aerosols (Walker and McCabe, 2021).

4.4. Projective Blaming

Outside China, there also have been numerous public demonstrations against government policies. According to the annual global peace index compiled by the Institute for Economics and Peace, there have been more than 50,000 COVID-19-related protests from 2020 to 2021 (The Telegraph, 2021). People's dissatisfaction with the government and the department of health phenomenon can be seen as a kind of projective blaming, a way for people to release themselves from the anxiety and worry of the COVID-19 epidemic. In China, projective blaming is mostly reflected in people's condemnation of those who do not comply with quarantine policies, such as those who don't wear masks in public.

4.5. Identification

In the face of COVID-19, medical workers such as doctors and nurses must be among the most watched. During this period, medical workers undoubtedly bear the greatest pressure. They have been fighting on the front line against the epidemic. In the whole society, the medical system is the most important guarantee of life and health. In China, doctors have become one of the most respected groups among many young people. According to CCTV News (2020), the number of people applying for medical majors has increased significantly in 2020. Compared with last year, the number of students enrolled at Tsinghua Medical College and Peking Union Medical College increased by nearly 30%, especially in clinical medicine. This indicates that many young people have a high degree of recognition of medical workers.

4.6. Compensation

A particularly evident phenomenon during the epidemic is that supermarket shelves are often sold out, especially some sanitary products and foods, such as toilet paper, hand sanitizer, milk, etc. During this time, people are particularly likely to buy and hoard large quantities of items. This phenomenon is very common both in China and outside China. In Auckland and New Zealand, supermarket consumption has reportedly surged 40% compared to the same period the last year. In Malaysia, shoppers want to hoard groceries to fill their kitchens until the crisis subsides, driving an 800% increase in weekly sales of hand sanitizer (BBC, 2020). A study showed that during the epidemic, participants stocked an average of about 6 items, and toilet paper was the most frequently purchased item. Hoarding is more common among those who are more conservative, more anxious about the pandemic, and maintain social distance (Micalizzi *et al.*, 2021). The occurrence of this hoarding phenomenon is related to the role of the compensation mechanism. People have relieved their anxiety about the epidemic in the process of buying and stocking goods.

4.7. Humor

Humor can be seen as a mechanism by which many people deal with bad situations. As Freud wrote "Humor can be regarded as the highest of these defensive processes. It goes beyond the automaticity of defense by dismissing painfully conceptual content from conscious attention like repression. It achieves this by finding a way to extract energy from the already prepared unpleasant release and convert it into pleasure" (p233) (Freud, 1905). During the epidemic, millions of people created humorous scripts related to COVID-19 on social media platforms, only to ease sadness, reduce emotions and divert people's attention from the struggle to accept the new normal (Torres *et al.*, 2020). Humor is one of the important defense mechanisms to cope with the pressure during the COVID-19 lockdown (Canestrari *et al.*, 2020; Reizer *et al.*, 2022). Humorous jokes about the pandemic abound on various social platforms. In China, some college students majoring in painting have also created a lot of humorous cartoons about COVID-19. In Wuhan, young medical staff led patients to perform a fun square dance in the mobile hospital, bringing laughter people had not seen for a long time (China Daily, 2020). These actions have undoubtedly brought some joy to people in a period of depression, easing their anxiety and fear about the COVID-19 epidemic.

4.8. Sublimation

Freud (1917), believed that sublimation plays a particularly important role in the development of culture. Under the action of the sublimation mechanism, individuals transfer energy and desire to other socially acceptable and civilized objects and ultimately have an impact (Yang, 2021). Yang (2021), believes that sublimation is a more advanced phenomenon because it transfers energy to a more beneficial direction from a social perspective. According to China Wenming Net (2020), a group of students from the School of Animation and Digital Arts at the Communication University of China have produced a set of cartoons based on the Covid-19 pneumonia prevention manual. The self-designed cartoon characters are combined to scientifically explain Covid-19 pneumonia in detail for the public. More than a dozen of students from Nanjing Forestry University also played their strengths to design a series of cartoon characters for the medical staff who fought on the front line of the epidemic. Through the Internet, teachers, and students at Southeast University composed and recorded the original song "the Angel" to pay tribute and bless to the heroes who fought on the front line of the epidemic. The students at the Yanjing Institute of Technology composed the song "Don't cry, Wuhan" to fight against the epidemic, while the students in Sichuan Province composed the song "Your Smiling Face" to encourage the patients. In addition, with 7500 workers working day and night, it took only 10 days to build a 1,000-bed hospital in Wuhan with a floor area of more than 30, 000 square meters and 419 wards. It is called Huoshensan Hospital and is particularly used to treat COVID-19 patients (China Youth Daily, 2020). To celebrate the staff who fought on the front line of COVID-19, the virtual concert "One World: Together at Home" was held on 18 April 2020. Many artists participated in this global event, including Jennifer Lopez, Andrea Bocelli, Paul McCartney, Taylor Swift, and other stars performing live in their homes (BBC, 2020; WHO, 2020).

4.9. Altruism

Altruism is embodied in suppressing one's impulses and sacrificing one's interests to serve or satisfy others (Freud, 1966). This process not only reduces anxiety but also produces a sense of self-realization (Yang, 2021). Altruism is the most frequent form of defense mechanism in the Wuhan epidemic. Since Wuhan implemented the lockdown policy due to the COVID-19 epidemic, a group of people known as "heroes in harm's way" began to support the city's actions and most of them were volunteers. According to local media reports in Wuhan, some students from Wuhan University and Central China Normal University volunteered to provide free online "one-on-

one" tutoring for children of medical workers. Some students from Huazhong University of Science and Technology volunteered to provide support in the epidemic analysis, patient treatment evaluation, disinfection guidance, and community prevention and control strategies. Some students from Huazhong Agricultural University and Zhongnan University of Economics and Law participated in community volunteer service. Some international students from the China University of Geosciences (Wuhan) organized volunteer teams to help international students in Wuhan (Wuhan Daily, 2020). 1494 college student volunteers provided online tutoring to the children of the medical workers. A total of more than 200 young volunteer teams participated in the construction of key epidemic prevention projects such as isolation sites, medical treatment sites, and mobile hospitals, and more than 1500 young volunteers participated in the medical rescue and logistical support services. Besides, more than 100 psychological volunteers provided psychological assistance services. According to statistics from Changjiang News, as of May 21, 2020, Wuhan has organized more than 500 volunteer service projects composed of more than 23,000 young volunteers. In March 2020, People's Daily published the timeline of China's fight against COVID-19, an event related to the altruism mechanism. For instance, On January 24, the Military Medical University organized a medical team to assist Wuhan with the COVID-19 epidemic. On January 28, medical workers across the country voluntarily rushed to Wuhan to fight against the epidemic. As of February 28, the number of medical staff supporting Hubei Province has exceeded 40,000. As of February 29, Wuhan received a total of 13.02 billion yuan in social donations and 92.162 million items of goods and materials. As of March, 5, 919 people participated in blood donation, a total of 294450 mml of plasma was provided to the medical system. At the same time, Chinese students studying abroad and people from all walks of life abroad continue to donate medical supplies to Wuhan (People's Daily, 2020). During the epidemic in Wuhan, a large number of people provided various assistance to Wuhan without any return. In the face of the major public event of the COVID-19 epidemic, many people have shown selfless dedication and altruism spirit. Just as Freud (1966) argued, altruism is related to anxiety about death; in the process of altruism, people's intrinsic fear of life is projected onto others, and individual anxiety about death is alleviated in the process of caring for the safety of others.

To sum up, beyond the immediate consequences of the virus, the epidemic has triggered a cascade of psychodynamic processes that are still influencing people's daily behaviors, moods, and sense of well-being (Brooks *et al.*, 2020). In the field of behavioral research, both practitioners and theorists have found that defense mechanisms are useful. These defenses help people feel less anxious and upset during COVID-19. However, not all defense mechanisms are suitable. Immature defenses mostly make the user feel better, but they're annoying to everyone else (Zechowski, 2017), such as denial, displacement, reaction formation, regression, undoing, etc. Individuals employing such defenses may exhibit socially unacceptable behavior or emotions. On the other hand, mature defense mechanisms are more likely to boost feelings of control and emotions, which can help people deal with stressors better. Examples of mature defenses include altruism, sublimation, suppression, and humor. They serve an important role in safeguarding individuals from mental stress caused by traumatic events in their lives, like the COVID-19 epidemic (Altwajri *et al.*, 2022). Utilizing defensive mechanisms fosters mental resilience and has been critical in reducing psychological discomfort during the COVID-19 epidemic (Di Giuseppe *et al.*, 2020; Walker and McCabe, 2021). Therefore, it is necessary to continuously observe the employment of defense mechanisms during the worldwide pandemic, because the capacity to effectively and properly employ defense mechanisms in complex circumstances is correlated with mental and psychological health.

5. The Significance of Understanding Defense Mechanisms

From the perspective of psychoanalytic therapy, the survey of the defensive processes can give therapists a very clear consideration of the possible attack points for analytical therapy (Freud, 1966). She wrote: "In analysis, the defensive processes are reversed, a passage back into consciousness is forced for the instinctual impulses or affects which have been warded off, and it is then left to the ego and the superego to come to terms with them on a better basis" (p63) (Freud, 1966). That is, therapists need to identify the existence of the defense mechanisms during therapy and understand what they mean for the patients. This will help the therapist better identify the core problem and determine the solution during the therapy process. Therefore, the study of defense mechanisms is of great value to the work of psychotherapists. In addition, for the general public, understanding the defense mechanisms is also meaningful for them to better their mental health.

The occurrence of the defense mechanism is unconscious; in other words, when people realize that certain behaviors may be caused by the defense mechanism, this process has already ended. But if people can correctly understand the defense mechanism theory, then people will not feel guilty or remorse for the behavior caused by the defense mechanism, which can help people reduce negative feelings such as self-guilt or self-blame. According to Yang (2021), understanding the theory of defense mechanisms can help people understand the truth about many of their emotions and then "bring themselves back to the truth," thus reducing their distress and anxiety. She wrote: "Truth often means power, because before we know the truth, the uncertainty we face will leave us at a loss, and after knowing the truth, we can have a clear target and gain the initiative. Understanding the existence of defense mechanisms is critical for individuals to accept their egos, especially when it comes to understanding their egos (p 72) (Yang, 2021). In other words, learning the defense mechanisms and understanding how they work can help people better understand themselves, especially their egos. As Anna Freud said, "The proper field for our observation is always the ego." (p. 6) (Freud, 1966). For example, some people who violated the epidemic prevention and control regulations during the COVID-19 epidemic might feel guilty when they realize that their actions might have caused the spread of the virus or might feel ashamed because of the punishment for what they did; and these situations might cause people's negative emotions or deep remorse. However, if they understood the

theory of defense mechanisms, they might have realized that their actions were not intentional but were a kind of denial, which is a kind of defense mechanism to alleviate the anxiety caused by the epidemic. This is an automatic psychological process, which is an individual's unconscious emotional response to stressful or dangerous situations. Therefore, there is no need to blame themselves for it. At this point, people can feel relieved and will not fall into deeper negative emotions because of their actions.

Knowing about the defense mechanisms is considered to be able to help individuals increase their understanding of the relationship between the id, ego, and superego and the objective world, as well as understand their reactions and behaviors in response to specific circumstances, such as stress and threats, and the meaning behind these reactions and behaviors. This may help people perceive and adjust their states and thoughts to stop their internal struggles (Yang, 2021). Moreover, according to Freud (1966), learning the theory of defense mechanisms can also increase the personal understanding and tolerance of others to be more relaxed when interacting with them. For example, if understand how the defense mechanisms work during the epidemic, people may not always complain or blame others' behaviors or phenomena that are associated with reaction formation, denial, regression, etc. Because they can realize that the reason behind these behaviors or phenomena is others' fear and anxiety about the situation of the COVID-19 epidemic. The same is true in daily life; when understanding the psychological mechanisms of certain behaviors in some special circumstances, can make it easier for people to understand and accept others, which has a positive impact on interpersonal communication. Meanwhile, good interpersonal relationships may be conducive to the realization of individual mental health. Because communication is considered necessary for good mental health and connection with other people is essential to mental health and well-being (Fisher *et al.*, 2012). "Understanding the defense mechanisms can not only help us observe, face, and accept ourselves better; it can also help us redistribute the energy we use to suppress ourselves and accept others better" (p73) (Yang, 2021). This is similar to the mentalization concept of psychoanalysis; that is, people make sense of each other and themselves in terms of subjective states and mental states, implicitly and explicitly. This is also regarded as a profound social construction. In other words, people are concerned about their mental state of themselves and those they are with, physically or psychologically (Bateman and Fonagy, 2010).

Understanding the work and performance of the defense mechanism can also enable individuals to timely identify and be aware of their state when the defense behavior occurs. This will help them make timely adjustments to their emotional state according to the actual situation. In other words, defense mechanisms can help people keep up with the second reaction (Yang, 2021). The "second reaction" is proposed based on the "first reaction". The first reaction can be regarded as an instantaneous automatic response similar to the conditioned reflex, or unconscious behavior caused by the defense mechanisms. The second reaction is that people perceive, reflect, and self-adjust what has happened at the level of their consciousness after the occurrence of the first reaction (Yang, 2021). That is, when some unconscious reactions and behaviors occur, people, begin to consciously consider the real motives and reasons hidden behind these reactions and behaviors. Keeping up with the second reaction means that people can face up to their behaviors, become more aware of their feelings, and then think about this process rationally or consciously. In the second reaction, people can adjust their cognition and attitude, further analyze the specific situation and make choices that are more beneficial to them or deal with the current circumstance more healthily and constructively. Take the emergence of behaviors caused by the defense mechanisms in the COVID-19 pandemic as an example. During the epidemic, some phenomena that violate the national epidemic prevention policy (denial) or criticism of the government and medical system (projective blaming) can be found. According to the classification by Vaillant (1971), the defense mechanisms that cause these behaviors belong to the bottom level, which is unhealthy. Especially for the people in this situation, if they understand the defense mechanism theory, that means they can know that their actions are intended to alleviate the anxiety caused by the COVID-19 epidemic. At this time, they can think more rationally about the current reality and consciously choose other ways to help them cope with this anxiety.

Of course, in the COVID-19 epidemic, those who have suffered major losses, such as the deaths of relatives and friends, need to seek the help of professional psychological counselors or therapists as soon as possible, especially those who have experienced major traumatic events the past. Because the epidemic is a trigger point, it is possible to activate previous traumatic memories; the most effective way is to take the initiative to seek professional help (Yang, 2020). For the general population, it is more important to reduce the impact of stress and anxiety caused by the epidemic. People need to maintain their mental health and prevent possible mental problems. Therefore, understanding the theory of defense mechanisms and their performance is valuable for individuals to better maintain mental health. People may come up with better ways to deal with stress and anxiety if they can correctly identify and understand how their own and other people's defense mechanisms work.

6. The Cultural Characteristics in Defense Behavior

Psychoanalysts have established a theory of defense mechanisms that have greatly benefited therapists and behavioral scientists in terms of their in-depth grasp of human psychology. Scholars have identified a variety of defense mechanisms and have categorized them based on how they work (Vaillant, 1971; Vaillant *et al.*, 1986). The idea of defense mechanisms is thought to be universally applicable. However, the call for cross-cultural research on defense mechanisms is growing (Tseng, 2004). Therefore, an increasing number of scholars are examining defense mechanisms from a cultural perspective. The research conducted by Tori and Bilmes (2002) indicates that the theory of defense mechanisms can be applied to Thais and, by extension, other Southeast Asian populations. Consequently, they believe that conceptualizations of ego defense have broad cross-cultural applicability. Watson's research shows that defense mechanisms are shared throughout cultures; however, the expressive forms of these behaviors vary

depending on the specifics of each social setting (Watson, 1974). According to Hsu (1949), different cultures have different defense strategies, such as repression and suppression. Based on what he saw two racial groups from four different cultures do, he claims that Americans and Germans are more likely to use repression, while Chinese and Japanese are more likely to use suppression as a defensive strategy. Cho *et al.* (2004), examine the disparities in ego defense mechanisms between South Koreans, North Korean defectors in South Korea, and Korean-Chinese in South Korea. Their study results show that there are disparities in defensive styles among the three groups, and that socio-cultural characteristics influence defense mechanisms.

Many studies have demonstrated that defense mechanisms are universally applicable while culturally specific in their manifestation. The COVID-19 epidemic has been ongoing for three years, and people have been suffering from stress and anxiety for a long time due to the epidemic and its policies. The global spread of COVID-19 also means that it has affected nearly the whole of human society. Consequently, human behaviors observed during the pandemic, particularly those under the influence of defense mechanisms, have group characteristics. Among them, some special group behaviors may take into account their cultural traits, i.e., they may be influenced by culture. Through news reports, the same or distinct defense mechanisms used by people to overcome anxiety in various nations or locations can be observed during the epidemic. Through the collection and sorting of various news stories, the author almost finds behaviors associated with all the defense mechanisms proposed by Freud and Anna Freud. However, what happens to these defense mechanisms is different across nations or regions. During this special period, different defense mechanisms occur in China, such as denial, reaction formation, humor, etc. However, the most common phenomena are various kinds of assistance, volunteer services, and donations. One of the most common phenomena in China from the start of the epidemic to the present is volunteering. Volunteers from different backgrounds work to support the community or others. Additionally, at the height of the pandemic, "heroes in harm's way" was a common phrase in media accounts in China, which refers to the everyday heroes who put their mission before their lives and made fearless sacrifices to fight the pandemic. Since the outbreak of COVID-19, the most common manifestation of defense mechanisms in Chinese society is altruism.

In the process of collecting and organizing news reports, it is easy to find that such behaviors of collective altruism are uncommon in the news of other nations. The author considers that this has some relation to Chinese cultural traits. Numerous pieces of research point out that the cultures of Eastern Asia are known for having a high level of collectivism, and China, in particular, is founded on a collectivist culture (Chung and Mallery, 1999). In his book, Hofstede *et al.* (2010) defines collectivism as "societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout people's lifetimes continue to protect them in exchange for unquestioning loyalty" (p 81). The collective is given high attention in collectivist societies. Individuals can be perceived and judged as belonging to social groups and collectives (Kasler *et al.*, 2021). In China, people spontaneously assist others and society in various ways during the period of COVID-19. Some of them are unconscious behaviors in the face of anxiety caused by the pandemic. People alleviate their fear of death in the process of caring for the safety of others, which is the altruism of the defense mechanism (Freud, 1966). Others are voluntary behavioral choices after recognizing the difficulties of the epidemic, and they belong to conscious altruistic behavior. According to the author, these conscious and unconscious behaviors of altruism exemplify the characteristics of collectivist culture. Since ancient times, the Chinese have always believed that "if one is in need, all will render help; and when difficulties arise in one place, help comes from everywhere." In a collectivist culture, people tend to believe that individuals tend to belong to larger groups, cooperation is better than the competition, and satisfaction obtained from group achievement is better than from individual achievement (Lin *et al.*, 2003). In Chinese traditional culture, people regard the nation and the collective as having an important existence. When they need support, it is duty-bound for most people. Lin Zexu was a famous thinker and politician in China during the Qing Dynasty. He once said, "I shall dedicate myself to the interests of the country in life and death irrespective of personal will and world."

In addition, people are generally seen as being nice and altruistic in eastern countries such as ancient China. In traditional Chinese culture, people should fulfill their responsibilities without reservation and extend themselves to include others. People, in general, have a mind that finds it intolerable to witness the suffering of others (Lee *et al.*, 2008). Lao-tzu, who has had a great influence on Chinese culture, believed that the best of men is like water, water benefits all things and does not compete with them. Altruism is embodied in many traditional Chinese cultural perspectives. The moral values of Ren (Humanity, Benevolence,), Yi (Justice, Righteousness), Li (Propriety, Etiquette), Zhi (Wisdom), Xin (Faith, Sincerity), and others are highly valued in traditional Chinese society. They are also regarded as the foundation of conventional Chinese culture. Among them, Ren is a typical example of altruism, which means kindness and generosity, and educates people to be considerate, altruistic, and compassionate. Altruism, it seems, has been deeply ingrained in Chinese culture. Culture, in some extensions, imperceptibly influences people's lives and choices. Therefore, the author thinks that when altruism as a defense mechanism is used on a large scale in Chinese society, it can be seen as being influenced by Chinese culture. Of course, similar phenomena occur when there is a major public event or disaster in China, not just during the COVID-19 epidemic. For example, the Wenchuan Earthquake in 2008 and the flood in the Henan Province in July 2021, etc. According to (Chang, 2020), China has its Chinese cultural-social ecology, which is based on the ideological synthesis of many schools of Chinese traditional culture. Therefore, the study of the cultural characteristics of group defense mechanisms is consistent with the social field and Chinese cultural-social ecology.

7. Conclusion

The impact of COVID-19 has involved almost everyone. In the face of this global disaster, people have suffered from different levels of worry, anxiety, fear, and other emotions. In this case, people will automatically take some actions to help them relieve stress and negative emotions. Behind these behaviors are various defense mechanisms at work. People need to improve their mental health during this special period. Recognizing and identifying defense mechanisms correctly is an important step because people need to understand and evaluate their own and other people's states to figure out the intent behind their behaviors. Understanding the defense mechanisms allows people to better perceive the ego, analyze the ego, and regulate the ego. Through this process, people can avoid being influenced by the overreaction of their defense mechanisms so that they can choose the appropriate and rational way to view their own and others' actions. This process can also help them more effectively manage and control their behaviors. At the same time, people can also deal with relationships with others based on understanding others' behaviors. Therefore, it is necessary to understand the defense mechanisms behind the behavior and become familiar with how they work. In particular, if you suffer from anxiety.

According to a large number of news reports, the author realizes that the defense mechanism has cross-cultural applicability. That is, in the face of the general objective anxiety caused by the epidemic of COVID-19, the defense mechanism can be observed in various countries and cultures. After collating and summarizing the news content, the author finds that the defense mechanism that occurred most frequently in China during the epidemic is altruism, which is completely different from that of countries outside China. Based on the synthesis and analysis of the study literature, the author agrees with the idea that in each distinct social milieu, cultural elements affect the expressive forms of defense mechanisms. As in the period of COVID-19 in China, various behaviors of altruism appeared in society on a broad scale, which is likely to be influenced by traditional Chinese philosophy and culture.

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