

Mechanism of Compulsive Behavior Formation: An Approach to the Regulation of Malignant Emotions Due to Cognitive Dissonance

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Keywords: Compulsive Behavior, Cognitive Dissonance, Vicious Cycle Mechanism, Emotional Regulation

Abstract: In the field of psychology and psychiatry, obsessive-compulsive disorder (OCD) has long been the focus of research. As for the causes of compulsive behavior, scholars have proposed from the perspective of psychology that individuals' cognitive models and their early experiences, especially traumatic events, have a shaping effect on compulsive behavior. However, the research on the causes of compulsive behavior still has the problem that the multi-factor mechanism has not been unified, resulting in incomplete analysis of the causes of compulsive behavior. The research on compulsive behavior caused by negative emotions has challenges due to cognitive dissonance, difficulty in emotion regulation and inability to thoroughly analyze the interaction of behavioral pattern learning. This paper will review and analyze the existing literature. In view of the core view that the emergence of compulsive behavior is aimed at relieving negative emotions, it will explore how cognitive dissonance, vicious cycle mechanism, emotion regulation mode selection and other potential factors interact with each other to jointly lead to the formation of compulsive behavior. On this basis, future research directions and suggestions will be put forward. Through in-depth study of the causes of compulsive behavior, it can provide more accurate guidance for clinical treatment.

1. Introduction

Consistency theory holds that disharmony or inconsistency caused by cognitive dissonance is the cause of mental illness [1]. Cognitive dissonance is a state of psychological discomfort that occurs when an individual's cognitive elements are contradictory. Most people do not deliberately pay attention to disharmony in the cognitive system, but Shafran's study in 2005 found that obsessive-compulsive patients generally pay attention to unpleasant thoughts and emotions in cognitive dissonance [1]. It can be assumed that OCD is caused by negative emotions triggered by cognitive dissonance.

In a 2010 paper Lee and Schwarz demonstrated the idea that negative emotions resulting from

cognitive dissonance can be reduced more effectively through actions or rituals rather than through cognitive methods [1]. The research in this paper also pointed out that patients with OCD believe that using rituals such as hand-washing can effectively solve the discomfort caused by cognitive dissonance in the short term [1]. This leads to the hypothesis that the purpose of compulsive behavior is to alleviate the negative emotions caused by cognitive dissonance. However, Baumann, et al. 's study in 2014 found that compared with healthy people, patients with OCD had more overall disharmony [1]. Therefore, it can be further hypothesized that compulsive behavior is an unreasonable and unhealthy way to regulate emotions, and even an important link to strengthen negative emotions caused by cognitive dissonance.

This paper will prove through relevant literature that cognitive dissonance is the foundation of compulsive behavior, vicious circle theory is the logic behind compulsive behavior, and compulsive behavior is an unreasonable emotion regulation mode in essence, and conclude that compulsive behavior is caused by cognitive dissonance, and negative emotions generated by cognitive dissonance are constantly strengthened through the vicious circle mechanism, which is a wrong emotion regulation mode. The correct way to regulate emotions is to accept cognitive dissonance and find the key points and reasons of dissonance, subjectively accept emotions, actively carry out cognitive reconstruction and self-explanation.

2. Compulsive Behavior and its Influencing Mechanism

2.1. Cognitive Dissonance Leading to Compulsive Behavior

According to the theory of cognitive dissonance, when there is inconsistency between an individual's cognitive elements, such as internal beliefs, attitudes and behaviors, or when there is deviation between internal cognition and external objective reality, a state of psychological tension will occur, namely cognitive dissonance. Cognitive dissonance can cause the subject to have self-doubt, which in turn produces negative emotions such as tension, anxiety and fear. In order to reduce or alleviate the uncomfortable feelings caused by this negative emotion, the individual will spontaneously adjust their thoughts or behaviors to achieve homeostatic or internal and external balance.

However, some individuals overemphasize the importance of subjective beliefs in cognitive dissonance, which may be unrealistic expectations guided by excessive responsibility and perfectionism. These expectations will produce internal and external conflicts with objective reality, causing the individual to produce illogical obsessive thinking, that is, uncontrollable thoughts, impulses, or imaginings that repeat in accordance with unreasonable subjective beliefs. These thoughts are usually unrealistic expectations that expect themselves to change to fit the subjective beliefs of the individual under the premise that the subjective beliefs are correct. For example, compulsive doubt, in which an individual repeatedly suspects that his hands are not clean in the conflict between the expectation of absolute cleanliness and the fact that absolute cleanliness does not exist. Such doubts follow the subjective beliefs of the individual and ignore objective reality or sound reasoning.

Following subjective compulsive thinking can exacerbate the negative emotions associated with cognitive dissonance. Compulsive thinking, on the other hand, reduces negative emotions such as anxiety caused by cognitive dissonance by inducing compulsive behavior. Through compulsive behavior, individuals will constantly narrow the cognitive distance between subjective belief and the hypothetical reality in line with subjective belief, and then achieve self-balance to alleviate the negative emotions caused by cognitive dissonance.

There are two kinds of coercive behaviors caused by following subjective cognitive disadjustment, one is to actively make efforts to assume reality to directly close the positive behavior of hypothesis

fact and subjective belief, and the other is to avoid the negative behavior of the difference between subjective belief and hypothetical reality by changing the current behavior. It is important to emphasize here that the positive and negative division is based on whether an individual can maintain the ongoing behavior of cognitive dissonance, rather than whether it has a positive impact on the individual. Either of these behaviors can temporarily alleviate the negative emotions of individuals due to cognitive dissonance, but in the end, they will return to the unbalanced individual state because they fail to completely change cognitive dissonance, a behavior process that will be discussed in detail in the next video.

Back to the subject of compulsive doubt on cleaning, a person has a cognitive disorder that can completely eliminate the subjective belief of virus and bacteria and the objectivity of the state without absolute cleanliness, thus forming a forced thinking that repeatedly suspects that hands are not washed and produces a forced behavior that washes hands repeatedly. However, the compulsive repeated cleaning behavior helps the subject to become psychologically close to the subjective absolute clean state, and the subject USES this comfort to make up for the difference between reality and subjectivity, thus alleviating cognitive dissonance and anxiety.

Therefore, coercive behavior is caused by the cognitive dissonance of excessive attention to subjective beliefs.

Narcissism is a manifestation of cognitive dissonance, a cognitive dissonance between the subject's excessive positive belief in himself and the reality of the performance of the performance that does not meet the self-requirement. Narcissists will have a strong need for admiration and recognition to meet subjective requirements, and anxiety will be generated when the needs are not met. In the study of Sedikides et.al in 2007, they found that narcissism will cause consumers to have compulsive buying behaviors, because it can verify narcissists' too positive self-belief [2]. This verification enables narcissists to bring the cognitive distance between self-belief and hypothetical reality and alleviate the anxiety caused by cognitive dissonance.

Cognitive dissymmetry also exists between attitude and belief within the subject, and this internal contradiction also leads to forced thinking, such as "dangerous" forced thinking. "Dangerous" forced thinking is manifested as a disorder between the belief that tolerance and non-harm to others and the aversion to certain behaviors, and the repeated fear that they will harm others, disrespect god, or develop the idea of sexual behavior that makes them hate. When these thoughts arise, they may think that they are tantamount to actual action intentions, resulting in great fear and guilt, and by taking coercive ACTS such as repeated prayers or purges to "eliminate" these bad thoughts and ease guilt and restlessness.

2.2. The Vicious Cycle Mechanism behind Compulsive Behavior

Excessive attention to subjective belief in internal and external cognitive dissonance will lead to unreasonable obsessive thinking and thus compulsive behavior. Subject can create hypothetical reality or escape reality through compulsive behavior to alleviate the psychological gap between objective reality and subjective belief, so as to relieve anxiety, tension and other negative emotions caused by cognitive dissonance. However, this relief is often only temporary, because the objective reality has not changed, and the gap between the two parties suffering from cognitive dissonance objectively remains.

The positive compulsion of actively making efforts to the hypothetical reality to directly bridge the hypothetical reality with the subjective belief only temporarily overlays the hypothetical reality that conforms to the subjective belief on the objective reality and consoles the psychological gap of the subject. When the facts of objective reality that do not conform to the subject's subjective beliefs appear again, the hypothetical reality without any objective support will be immediately broken. At

this time, the subject feels not only the negative emotions brought about by cognitive dissonance, but also the loss of the failure to alleviate the cognitive dissonance through compulsive behavior, so the negative emotions felt by the subject are strengthened. However, the negative compulsive behavior that escapes the gap between subjective belief and reality by changing the current behavior only ignores the cognitive dissonance for a short time. When the subject has to return to the reality where the cognitive dissonance occurs, the negative emotions brought by the cognitive dissonance will be accompanied by the subject's own guilt for escaping and condemnation of his own cowardice, and the overall negative emotions will also be strengthened.

Compulsive behavior, which aims at regulating negative emotions, in turn strengthens the negative emotions caused by cognitive dissonance. It can be seen that compulsive behavior is a negative reinforcement link in this vicious circle.

In 2014, Baumann, et al. 's study proved that patients with OCD would have more disharmony and negative emotions caused by cognitive dissonance [1]. The degree of disharmony depends on a person's attention to inconsistent thoughts, and the passive compulsive behavior of patients with OCD to neutralize or reduce the tension itself plays a negative strengthening role, so that patients with OCD pay more attention to this disharmony, resulting in increased tension in patients with OCD [1]. This directly proves that compulsive behavior is a negative reinforcement of the process of alleviating the negative emotions generated by cognitive dissonance.

The emergence of compulsive behavior is often associated with specific cognitive dissonance, but as individuals regard compulsive behavior as a specific way to relieve the negative emotions generated by cognitive dissonance, compulsive behavior will gradually become an independent physical response. In the vicious cycle, the physical response is mostly a negative reinforcement link in the vicious cycle mechanism.

Rumination is defined as a way of reacting to repeated negative thoughts. The symptom perception theory proposed by Gijbers van Wijk and Kolk in 1997 indicates that there is a vicious cycle between rumination and physical symptoms [3]. Based on this theory, when physical information is present, rumination directs people to pay attention to and detect the sensations of these physical information, and then helps focus the attribution of these sensations to form physical symptoms. Conversely, somatic symptoms caused by rumination can serve as input to somatic information, promoting rumination responses to capture and think about the symptoms themselves [3]. It follows that physical symptoms are the negative reinforcement of this vicious cycle.

Exclusion is a social condition in which one's sense of belonging is threatened by others [4]. According to a common theoretical model, the Williams need-threat model, exclusion threatens four basic needs, namely self-esteem, meaningful existence, belonging, and a sense of control [4]. Repeated or persistent experiences of rejection may lead to antisocial behavior or learned helplessness [4]. It is this stage and its emotional consequences that psychopaths often report, with behavioral manifestations such as helpless behavior [4]. This physical behavior can lead to social rejection (e.g., stigmatization) of people with mental illness, which can exacerbate psychopathological symptoms [4]. It can be seen that the physical antisocial behavior caused by the demand impairment caused by rejection will aggravate the social exclusion of the subject, forming a vicious circle.

Therefore, from the view of the physical response attribute of compulsive behavior, compulsive behavior is its negative reinforcement link in the vicious circle.

2.3. The Wrong Way to Regulate Emotions

The mode of emotional regulation refers to the strategy people use to change, control or adjust their emotional response, whether to enhance, maintain or reduce a certain emotional state. From the perspective of emotional regulation, coercive behavior can be understood as an inappropriate

emotional regulation strategy.

Healthy emotional regulation should be based on the correct understanding of oneself and objective reality. In the process of cognition, individuals need to abstract and discontext-specific "cool" performing functional rational thinking, and then use the "hot" executive function involving emotions to regulate emotions [5]. It can be seen that in the process of cognition, individuals need to temporarily isolate emotions, while the emergence of coercive behaviors is partly because individual emotions that believe in subjective beliefs, such as subject guided by perfectionism or excessive responsibility, are dominated by extreme emotions. This has hindered the formation of objective self-cognition of the subject, so from the perspective of its emergence, forced behavior is not an ideal emotional regulation strategy.

Compulsive behavior is based on the false cognition that follows the subjective belief in cognitive disillusion, and the unreasonable subjective belief itself means that the behavior based on it can only aggravate the intensity of unreasonable belief. According to research, compulsive purchase behavior (cbpi) has the characteristics of uncontrollable internal impulses, because repeated purchases can reduce emotional discomfort [6]. But compulsive buying as a way to ease emotional discomfort can eventually lead to financial distress for yourself and even your family. It can be seen that although negative emotions caused by cognitive disadjustment are alleviated through forced behavior, the fundamental reason cannot be solved means that emotional regulation can only play a stage role, so forced behavior based on the wrong basis is an unreasonable way of emotional regulation.

In turn, emotional regulation has an important impact on conflicts [7]. Internal conflicts and subject and object conflicts under cognitive dissonance will be strengthened due to unreasonable emotional regulation. In the study of Paraskeva, et al., in 2024, it was pointed out that the internalization of external ideal and the social and cultural pressure of realizing external ideal would lead to physical dissatisfaction, which in turn led to eating disorders [8]. Eating disorders are a form of cognitive dissonance that can produce psychological discomfort. In order to reduce this discomfort, the appeal of the women in the study, called "free me," aims to encourage girls to speak out and challenge unrealistic physical ideals through a series of language, behavior and written activities, resulting in greater anxiety [8]. This call is a sign of not being fully aware of the idea that there is essential error in cognitive dissonance. The call for a "free me" reinforces the conflict between ideal appearance and reality. It is unreasonable to strengthen the way to regulate the conflict that produces negative emotions.

3. Suggestion

There are two ways to change compulsive behaviors caused by cognitive dissonance.

The first link is the cognitive dissonance link, the formation link. Compulsive behavior is caused by the unreasonable cognition of cognitive dissonance, so it is necessary to acknowledge the disharmonious state and form an objective cognition. For unreasonable subjective beliefs, we should first form a correct cognition of the subject that produces the belief, that is, admit the limitations of the subject, and then gradually change the belief to alleviate the disharmonious state. If it is disharmony within the subject, for example, perfectionists may develop cognitive dissonance caused by the incongruity between the desire for perfection and the belief in respect for reality. In this case, the perfectionist can choose behavioral approaches, such as examining the subject's beliefs after achieving a calm state through deep breathing, and can ultimately choose to adhere to one of the two beliefs or respect reality and act in a positive manner to alleviate cognitive dissonance.

The second part is in the emotional regulation, that is, how to adjust emotions when the cognitive dissonance brings negative emotions to the subject. Start with skills. Improving emotional regulation skills may help reduce the severity of compulsive behavior in patients [9]. For example, through

mindfulness, STOPP techniques to achieve emotional regulation. Secondly, we can choose to leave the dysfunctional environment for a short time to carry out other activities to achieve adjustment. For example, choosing physical activities such as sports that are independent of related events, studies have shown that physical activity has a positive impact on mental health and emotional regulation [10].

4. Conclusion

The individual imbalance and disharmony caused by cognitive dissonance will bring the individual anxiety, tension and other negative emotions, and the individual has the instinct to actively adjust this emotion. However, following these irrational beliefs, attitudes and behaviors to relieve the negative emotions caused by cognitive dissonance without recognizing the irrational beliefs, attitudes and behaviors of both parties can lead to obsessive-thinking, and lead to the transient and unbalanced phenomena of both parties through compulsive behavior. However, compulsive behavior, as a physical response, is a negative reinforcement link in the vicious circle of negative emotions under cognitive dissonance, so it cannot finally relieve negative emotions and is an unreasonable way of emotion regulation.

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