

THE EMOTIONAL PROCESSING OF DREAMING AND DREAM ANALYSIS IN EXPLORING AND RESOLVING EMOTIONAL CONFLICTS

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ABSTRACT

This article explores how dreams and dream analysis contribute to emotional regulation and psychological development. Drawing from both neuroscience and psychoanalysis, the study considers how dreams may process traumatic and emotional material during REM sleep and how their interpretation in therapy can promote self-awareness and behavioral change. Two complementary frameworks are used: a connectionist model of emotional processing, which explains how dreams link emotionally similar memories to reduce psychological distress, and a cognitive-experiential model of dream analysis, which outlines a three-stage therapeutic approach—exploration, insight, and action. Together, these models highlight the interdisciplinary significance of dreaming as both a biological process and a psychotherapeutic tool.

INTRODUCTION

Often when people think about dreams, the immediate association is with a fantasy created inside the mind. But going beyond that, dreams can be defined as a kind of mental activity that takes place during sleep and mostly consists of visual content perceived as vivid and hallucinatory, often with bizarre elements or irrational narratives (Cheniaux, 2006). These experiences are also connected to how the unconscious mind continues to function during sleep. Dreams can be interpreted and analyzed in relation to what is happening in a person's life and, through an understanding of psychoanalysis, can help individuals better understand themselves and, in doing so, achieve psychical growth. Consideration can also be given to the meanings and functions of dreams and how those aspects are related to each other.

With this in mind, several questions may arise that can be better addressed with insights from psychoanalytical and neuroscientific perspectives. These questions include: What are the reasons dreams occur? Is there a physiological reason for dreaming? How can dreams provide meaningful insights into someone's psychological condition and assist in treating that condition? How can neuroscience and physiological perspectives help explain the purpose of dreams?

To address such questions, the theory that dreams can be evolutionary adaptations is considered—adaptations that involve processes tied to survival, memory, and trauma. A deeper focus is placed on the processing of traumatic or emotional material within this theory. By converging those ideas, it becomes possible to explore how dreams and their interpretation might mitigate disruptive emotions. This approach makes it possible to examine how the emotional processing function of dreaming and the analysis of dream content can help reduce distressing feelings. Two models are brought together in this context: a physiological model supported by emotion processing theory, and a cognitive-experiential model of dream analysis. The first model examines the emotional processing function of dreaming through a psychological framework of connection nets. This model proposes that dreams make it easier for memories to connect with one another,

which allows traumatic memories to be dissolved and emotional discomfort to be alleviated. The second model centers on dream analysis using a cognitive-experiential approach that includes three main discussion stages: exploration, insight, and action. These are the steps a therapist and patient go through to connect dream content with the patient's emotional conflicts. Through this process, the dreamer becomes more aware of the underlying schemas contributing to those conflicts, helping ease emotional distress and support personal development through behavioral change.

INTERDISCIPLINARY FOUNDATIONS OF DREAM STUDY

To develop a more complex understanding of dreams, it is essential to consider the fields of psychoanalytical study, dream analysis, and neuroscience. Psychoanalysis explores how the unconscious and conscious mind contribute to diagnosing and treating mental conditions, often using dreams as a pathway to explore unconscious material. Dream analysis involves a collaborative process between patient and therapist in which dream content is explored to uncover issues connected to emotional struggles. The goal of this process is to generate insight, which may lead to psychological change.

A complete understanding of dreams and their functions must also include biological and neurological activity as examined through neuroscience. Neuroscience explores the chemical and biological functions of the brain at a molecular level, including the nervous system, brain, spinal cord, and peripheral system. Tools such as EEGs can reveal electrophysiological properties of dreaming, while neural net models may compare brain activity during wakefulness and dreaming. These tools support theories such as emotional processing during dreaming, where emotional experiences, particularly traumatic ones, are diffused through memory reconsolidation during sleep.

To address how dreams and their interpretation can alleviate emotional stress, two models are considered: the “connectionist nets” model and a cognitive-experiential model of dream analysis. The connectionist model demonstrates how neural links are distributed

widely, facilitating easier connection among memories. This idea is grounded in the theory of emotional processing. Meanwhile, the cognitive-experiential model describes dream interpretation as a process involving exploration, insight, and action. This model views dreams as personally meaningful; by understanding the schemas within dream images through elaboration and association, psychological development may occur.

NEUROLOGICAL BASIS OF DREAMING

Before diving into the emotional processing aspect of dreams, their interpretations, and how they collaborate in solving emotional conflicts, it is important to understand the processes involved in the formation of dreams in the brain, when they occur, and other possible cognitive and emotional functions they might serve. It has also been scientifically observed that dreams are constructed through internally generated sensory, cognitive, and emotional experiences, primarily during REM sleep (Desseilles et al., 2011). REM sleep is the condition in which rapid eye movements occur and cortical blood flow—that is, the delivery of blood to the outermost layer of the brain—is very intense (Cheniaux, 2006). Cerebral blood flow is essential for eliminating neural waste and for delivering nutrients and oxygen to the brain (Tsai et al., 2021). It has also been demonstrated through positron-emission tomographic studies (PET scans) that during REM sleep, the associative visual cortex and the limbic and paralimbic regions are active, while the primary visual cortex and the prefrontal cortex are deactivated.

In the context of dream analysis by psychiatrists, these findings have been used to explain specific characteristics of dream content. Psychiatrists can connect the richness of visual imagery to the activated associative visual cortex and the deactivated primary visual cortex; the strong emotional response to the activation of the limbic and paralimbic regions; and, finally, the bizarreness, incoherence, loss of criticism, and forgetfulness to the deactivation of the prefrontal cortex. In addition to these neurophysiological aspects of dreaming, other possible purposes of dreaming beyond emotional conflict resolution have also been investigated. These include mental activity, threat simulation, wish fulfillment, and

a variety of other proposed functions such as the discharge of psychical energy, problem solving (both intellectual and emotional), creativity, self-knowledge, integration of the mind, adaptation, learning, stress neutralization, and communication.

THE EMOTIONAL PROCESSING FUNCTION OF DREAMING

After understanding how dreams occur in the brain, when they happen, and why, attention can now shift to the first half of this study: the emotional processing function of dreaming in resolving emotional conflicts, viewed through the aforementioned psychological connectionist nets model. According to psychiatrist, psychoanalyst, and associate professor Elie Cheniaux, this function relates to an elaboration process described in a model of computational neuroscience, which recognizes dreams as relevant to processing trauma and psychological conflict.

First, let's consider the dream's function of processing emotions and how this corresponds to the idea that it can alleviate stress. Emotional aspects are encoded as implicit memories (Cheniaux, 2006). Implicit memory implies that remembering can be an unconscious process (Martin & Li, 2016). Those implicit memories are likely consolidated during REM sleep, which is also when dreams occur the most. Scholars have agreed about there being a relationship between emotions that are felt in waking moments and the content that appears in our dreams (Cheniaux, 2006). The same study claims that, since REM sleep has been shown to collaborate in the processing of emotional memories, it is safe to conclude that emotions have a big impact when dreams are formed. This also allows us to understand that those mental activities have a therapeutic role as they process traumatic experiences and conflicts, just as sessions of therapy would.

To further comprehend this elaboration process, a model of computational neuroscience can be used. This process relies on the frequent neural network connections that occur during dreaming, which associate traumatic memories with other memories that have the same affective connotation, making those traumas less distressing and powerful. In other words, researchers argue that

these neural connections occur more easily during dreaming than during wakefulness (Cheniaux, 2006). This would, therefore, allow more connections and more elaborations to take place. Additionally, these neural networks are organized, as previously described, according to the emotions being experienced, which means that mental connections are grouped together based on affective similarity and tone. As a result, during sleep, more recent events are connected to past and more remote ones that share emotional relatedness before being stored as memories in the brain. This suggests that unpleasant situations—whether traumatic experiences or less disturbing, stressful memories—can be more easily associated and connected with other encoded memories while dreaming. These new connections would lead to fewer disturbing and unpleasant emotions being tied to those powerful and traumatic memories.

Another author uses the same model of computational neuroscience to argue that dreams serve the function of processing and mitigating negative emotions. Clinical psychologist Matthew Merced supports the idea that dreams have the ability to dilute emotional intensity, granting them a partial therapeutic role. He explains that dreams continuously add new memories to older, traumatic ones, resulting in the diffusion of the emotional intensity of those powerful memories. In comparison to the previously discussed scholar, Cheniaux, Merced explores in greater depth the ideas of one of the more specialized psychiatrists in the field of dream function. This allows for a clearer explanation of how the connection between remote and newer memories might occur. Merced examines Ernest Hartmann's studies on dreams, including his methodology, analyses, and conclusions.

Hartmann, a renowned psychiatrist, psychoanalyst, and sleep researcher, conducted a series of dream reports over several months with individuals who had experienced traumatic events. A recurring pattern was observed in which natural disasters appeared as common dream content. Over time, Hartmann recorded that the anguish linked to these nightmares diminished as they became associated with older, previously encoded material. Merced argues that Hartmann noticed a gradual

decrease in the negative emotions connected to the traumatic experience and that the trauma began to have a smaller presence in the patient's waking life and dreams (Merced, 2012). Merced places more emphasis on the idea that these connections occurred between traumatic and older memories, rather than with newly encoded content. This difference could be due to Cheniaux referencing earlier interpretations of Hartmann's work. In addition, Merced includes the idea that the trauma's role becomes diminished in both dreams and waking life, offering further insight into how emotional resolution and integration may occur through the dreaming process.

Another author who supports the emotional processing function of dreams is Matthew Walker, a professor of psychology and neuroscience at the University of California, Berkeley, and director of the university's Center for Human Sleep Science. Walker states that dreaming can help reduce negative emotions and traumatic experiences because, during REM sleep, the brain is free from an anxiety-triggering molecule and the emotional and memory-related regions of the brain are activated. He also claims that while dreaming, the brain becomes more creatively active, mixing and combining memories in abstract and novel ways that help solve problems that may be unsolvable in waking life (Walker, 2017). This idea of connecting old and new memories to solve unresolved problems is closely related to the arguments presented by Cheniaux and Merced within the computational neuroscience framework. Creativity, in this context, would enable the brain to combine memories in ways that help resolve internal emotional "puzzles."

This aligns with the emotional processing theory, where creativity plays a role in mitigating strong and distressing emotions. These insights also introduce new elements to the theory of dream function—such as the brain's freedom from anxiety-inducing molecules during REM sleep and the active participation of brain regions involved in memory and emotion. In addition, the creative capacity of the brain to join and reconfigure memories and emotional material adds a significant perspective not emphasized by the previous two scholars who contributed to the emotional processing theory of dreams.

COGNITIVE-EXPERIMENTAL DREAM ANALYSIS AND ITS THERAPEUTIC POTENTIAL

The second half of this study deals with the argument that working with dreams within the field of psychotherapy—specifically, through a cognitive-experiential model of dream analysis—can provide positive psychological development for the patient. In support of this, Merced also argues that dreams are events full of meaning, and that dream work, which assumes dreams are part of a cognitive process and have personal relevance, is a well-founded and therapeutically relevant activity. He claims that for dream work to be done, the psychologist must clarify and comprehend the images in the dreams through the dreamer's elaborations, thoughts, feelings, and associations. By understanding the visual content of the dream, both the patient and the psychoanalyst are better able to visualize previously hidden schemas, and from that, the possibility of positive change can emerge.

Merced adds that the simple act of talking about dreams also has therapeutic effects (Merced, 2012). He defends a three-step model developed by Clara E. Hill, a professor of psychology at the University of Maryland. The first step is exploration, the second is insight, and the third is action. Merced notes that these three stages mirror the structure of therapy more broadly. First, the therapist and the patient explore possible issues that brought the patient into treatment. Then, the therapist tries to make sense of the patient's underlying personal schemas and how they relate to emotional conflicts. Finally, both attempt to initiate change in the client's life.

Merced states that during the exploration stage of dream analysis, there is often an initial sense of not knowing exactly what the images in the dream mean. However, with open-ended questions the therapist can ask about the dream's visual content, the client can more easily connect the images to personal life experiences through free associations. With the help of the therapist, it becomes possible to arrive at current conflicts or situations in the patient's life that may relate to the dream's content. In the second stage, both participants work to combine the descriptions and associations in order to gather possible interpretations of the dream. In this stage, as in

the first, the therapist asks the patient for initial impressions, and they both try to form interpretations that fit the individual's past and current history. The therapist should avoid relying on fixed or stereotypical meanings; interpretations should be personal. Again, the bizarre and figurative aspects of dreams are connected to the specific areas of the brain that are either activated or deactivated during REM sleep.

The third and final stage allows the patient to decide whether to change certain behaviors or reconsider perspectives after gaining insight into the dream's meaning. This may lead to psychological development, considering that behaviors and thoughts can change over time. If the client decides to make a change, the therapist can offer strategies the patient may follow. However, it is important to recognize that behavioral change is not required. Some patients may be more resistant to change than others; nevertheless, all responses are valid in the context of dream work. Simply working with the dream presented by the individual can already increase the dreamer's awareness of psychological issues, schemas, and personality dynamics. The therapist can also help evaluate the benefits and drawbacks of specific choices and offer encouragement (Merced, 2012). In this way, the patient is given tools to achieve personal development and ease emotional conflict.

Other authors agree with the view that dream work can contribute to psychological development and hold therapeutic value. In one article, Hill's cognitive-experiential model of dream analysis, along with other dream work frameworks, is used to support the argument that dream interpretation can promote cognitive restructuring and emotional benefit. These authors emphasize that the model focuses on building a shared understanding between therapist and patient based on the patient's associations and descriptions of the dream, with the aim of identifying personally meaningful insights and increasing self-awareness (Scarpelli, 2022). These scholars also note that, while the effectiveness of dream work in psychotherapy has not yet been definitively established, many models—such as Hill's—show consistency with experimental findings in the study of dreams. This is partly

because they avoid stereotypical interpretations and instead emphasize the individual's cognitive, emotional, and behavioral experience (Scarpelli, 2022).

CONCLUSION

In conclusion, dreams and dream analysis can have powerful consequences in cognitive, emotional, and behavioral functions. Dreams have an emotional processing ability that allows traumatic events or simply stressful emotions to have their intensity decreased so that the brain can work less disruptively. For this, the model of computational neuroscience helps demonstrate how, during dreaming, new connections are more easily made, allowing negative emotions to become less intense, less worrying, and less influential in the mind. In addition, the cognitive experimental model of dream analysis also shows potential benefits for psychological growth and therapeutic value by connecting the visual aspects of dreams with the dreamer's associations and descriptions in order to identify underlying conflicts. Through this process, psychological development can be achieved by fostering greater awareness of the self. In this way, both dreams and dream analysis can lead to personal growth, particularly through the cognitive development that results from these processes.

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