

Low Facing Dreams

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Abstract

The article raises a question of interest in sleep medicine, forensic medicine, psychiatry, psychology and law. According to the decision of the Supreme Court of Israel C.A. 3958/08, V became aware while dreaming that her father raped her 28 years earlier. The verdict sent the old father to prison starting December 31, 2015. V was able to provide a vivid description and details concerning sexual abuse performed by her father when she was 3 and 10-11 years old. The Supreme Court considered these memories as true, despite the controversy of scientific data on that subject.

Keywords: Low; Dreams; PTSD; Sexual abuse; False memories; True memories; Repressed memories

Introduction

History of the case

V is the youngest of the three daughters in the family. She started primary school as an excellent student, but at the age of 11 she suffered anxiety attacks. Deterioration of her school performance led to interruption of her studies in 8th grade at the age of 15. A year later her mental state required psychiatric treatment with neuroleptics for a period of 6 years. At the age of 22 she moved to New York, where she lived for 4 years.

In October 1999, at the age of 23, she woke-up with a dream that she had had intercourse with her father. This dream raised numerous memories of sex abuse by her father during her childhood, at ages 3 and 10-11. The dream and the consequent memories provoked a recrudescence of unstable mental state and she required psychiatric treatment during her stay in New York [1].

Immediately after revelation of the dream, she started accusing her father and her family, who refused to accept her accusations, considering that the entire story was the result of her mental state. However, after a while, the family accepted her story and the mother divorced her father. Upon returning home in 2002, six years after the dream, she filed a complaint of rape by her father during childhood. The court was impressed by the precise and detailed descriptions of V's feelings, sensation of disgust, suffocation, vomiting and awful smells during the acts of rape, written details in her diary dating 1997 (two years before her dream), and conversation with her father. Three specialists in psychodramas working on a daily basis with victims of child abuse supported V's details and supported authenticity of her rhetoric. Two specialists of the defence were considered to be inadequately experienced with raped children. Answers provided by the father were less convincing and considered as lies. V's accusations were accredited by the court and the father was convicted with rape 28 years after the event. The controversial decision of the court received massive media attention.

Discussion

Despite the consideration of this case as exceptional, complex and sensitive in court's decision, the verdict affirms that repressed memories revealed by dreams represent true memories. The Supreme Court therefore enforces the power of law to a scientific dilemma concerning the differential diagnosis between false and true memories. Is V a

disturbed personality capable of presenting details which the court will accept as truthful? Is her accusation caused by obsessive victimisation consistent with her indecisive conduct? Is her dream real or not? Can a controversial scientific question be the basis for condemnation?

It is true that dreaming has tremendous creative power, and many examples along the history describe scientists that solved difficult issues while dreaming. However, it is widely accepted that the dreamer is aware that the dream was not real upon awakening. Why was V's dream considered true and real? It is extremely difficult for current neuroscience to determine if dreams represent false or true memories, particularly in cases of post-traumatic stress disorder (PTSD), psychiatric and mood disturbances, which often displays a disturbed REM sleep. Is the court a proper place to solve this scientific controversy?

The characteristics of PTSD after sexual abuse overload psychic homeostasis with repeated experience of the traumatic event, appearing in the form of chronic trauma-related nightmares and trauma-related intrusive thoughts during wakefulness [2]. Awakening from nightmares is associated with a sympathetic arousal and a state of fear. There is no clear answer on the functional role and psychological meaning of dreams. The opinion that an optimal homeostatic reset (the harmony of the organic functions) occurs during dreaming as an integral component of sleep is generally accepted [3].

Another opinion suggests that dreams do not rest but rather maintain psychic homeostasis [4]. Reduction of heart rate variability and alterations in autonomic tonus were found in PTSD patients. Memory of fearful states provokes changes in function of the amygdala, increased sympathetic tone and cortisol, which shorten and disturb REM sleep in these patients [5-7]. It is still unclear if changes in REM sleep in PTSD reflect an attempt of the brain to attain functional compensation, or represent symptoms of dysfunctional activity. Both possibilities reflect failure of cerebral homeostasis [8]. The link between contents of the

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dream and psychic disturbances facilitates consolidation of aberrant memories, and Imagery Rehearsal Therapy evolves as a promising therapy for PTST-related nightmares. The patient is encouraged to select one of his repetitive nightmares, and then change the narrative, attempting to make the dream less distressing and reach a satisfying solution [6]. This technique proves the possibility of reconstruction of the memory stores that are consolidated during sleep.

The activity of Central Nervous System during dream state has three major characteristics: a) electric (short bouts of high frequency in the range 15-60 Hz and PGO waves) [9], b) physiologic (activation of pontine tegmentum, thalamic nuclei, occipital and medio-basal prefrontal cortex, limbic, amygdala, anterior cingulus and hippocampus) [10], c) biochemical (high acetyl choline, low 5-hydroxytryptophan and noradrenaline) [11,12]. The majority of dreams appear during REM sleep but some appear during non-REM (NREM) sleep and are distinct in the social character: aggressive in REM versus friendly in NREM [13,14]. This characteristic reveals an overlap between the neurochemical anatomy that modulates emotions and that of REM sleep [15].

Synaptic consolidation is achieved by long-term memory tasks through sustained potentiation. REM sleep has an important role in the memory consolidation [16-18]. Forgetting memories appears to depend essentially on the activity of protein phosphatases, which are abundant in the brain and influences the strength of memory consolidation. Long term memory is consolidated primarily in the hippocampus. As HM (Henry Gustav Molaison) patient taught us, the absence of a reconsolidation process abolishes the memorized data [19]. E. Loftus insists on giving multiple examples on the changes occurring in the long term consolidated memory [20].

We are facing a decision gives the power of law over repressed long-term memory consolidated during sleep, which is in disagreement with the sleep research data.

Conclusion

Despite the scientific controversy on the validity of repressive memories during sleep, the Supreme Court of Israel by its judgment C.A. 3958/08 is decisive in favour of it, and sent to prison an old father starting December 31, 2015, owing to a repressed dream concerning the rape of his daughter, 28 years earlier.

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