

Dream Rebound

The Return of Suppressed Thoughts in Dreams

Daniel M. Wegner, Richard M. Wezlaff, and Megan Kozak

Harvard University and University of Texas at San Antonio

Introduction

- Based on the psychological theory on account of dreams by Sigmund Freud. Sigmund Freud is well-known for his theories on unconscious and suppressed thoughts returning in dreams. However , being that it is a complicated theory, it leaves many aspects of his idea un-studied.

Previous Studies

- Daniel Wegner’s explanation of the *theory of ironic processes of mental control*
 - Two processes
 - A. “a conscious and effortful operating process that attempts to create the desired mental state by searching for contents consistent with that state”
 - B. “an unconscious and automatic ironic process that searches for mental contents indicating failure of control”
 - Suggests that suppressed thoughts recur “in dreams more than pre-sleep waking thoughts”
 - Deactivation of the pre-frontal cortex allows ironic processes greater opportunity to recover suppressed thoughts
 - More likely to contain events related to suppressed memory rather than that of “day residue”
 - Indirect evidence of memory suppression in dreams due to suppression vs. emotion

Goal Of This Study

- To test “Whether instructed thought suppression would orient dream content to the suppressed thought regardless of whether the thought was emotionally charged
 - **Crush**- someone with an emotional attraction vs. **non-crush**- someone with no attraction
- 3 pre-sleep thought exercises
- Suppression: trying not to think about the target
- Expression: thinking about the target
- Mention: Thinking about anything after learning of the target

Methodology

- Participants were from University of Texas in San Antonio (202 women and 128 men. Mean age= 20.36) were in an intro psych class and participated for credit.
- Design of study: 3x2
 - Each were assigned to one of three tasks: Suppression, Expression, or Mention, x two targets: Crush vs. Non crush

Procedure

Procedure

- Procedure: Received study instructions in a sealed envelope and asked to wait until they were ready for bed to begin the study.
- Presleep Task: Think of a crush (never been a romantic relationship with but would like to be) and a noncrush (someone they aren't attracted to but were fond of). Identified crushes and noncrushes by their initials and rated their attraction to them on a scale of 1-7. 1=not attracted at all 7= Being extremely attracted then they were able to engage in a thought task.

Procedure Explained

- Task- Suppression: suppress thoughts one of the targets for 5 min
 - were told, “Try not to think about this person. You are free to think about whatever you choose, but do not think of this person.”
- Task-Expression: participants were instructed to focus on thoughts of one of the targets for 5 minutes
- Task- Mention: Participants were asked to supply the initials of the indicated target person before writing, and then asked to think about anything.

Procedure

- All tasks asked participants to write down their stream of consciousness during the 5 minute time frame and to put check marks in a right hand column each time they thought about the target.
- Participants were then allowed to sleep
- When participants woke up they were asked to record all dreams from that night. They also rated how much they had dreamed and how much they had dreamed about the targets.

UNDERLYING CAUSES

- 16 subjects reported drinking alcohol the evening before, but it did not differ in the condition or interacted when it was added to the design therefore they were kept in the analysis
- Two raters blind to condition and the hypothesis: Stream of consciousness reports and dream reports measuring emotional intensity, valence, and eroticism of dreams.
- The effective reliability of these codings and ratings was a minimum of .93 in a subsample

Manipulation Effectiveness

- Pre-sleep instructions effectiveness was analyzed by the number of check marks the participant indicated by the target or by the non-target name.
- Checkmarks were much more frequent for the expression group ($m=5.39$) than the suppression and mention groups.
- Suppression had the lowest results of any of the groups.

Results

Dream Self-Ratings

- 3x2x2 ANOVA varying instruction condition with person rated
- -instructed target M= 2.19
- -instructed nontarget M=1.91

Dream Self-Ratings

- Suppression increased rated dreaming about the target (M= 2.61) compared with nontarget (M=1.91)
- Expression increased dreaming about target (M=2.20) compared with nontarget (M=1.94)
- Mention had no significant effect.

Results

Dream Reports

- References to instructed target $M=.68$ compared to nontarget at $M=.39$
- Increase in dream references when presleep task target was the crush than when target was noncrush. ($M=.88$ vs $.51$)
- When subject was not involved in presleep task the crush was noted less than the noncrush $M=.31$ vs $.49$
- Suppressed target, $M=1$, occurred more often than expressed target, $M=.56$, or mentioned, $M=.52$.

Overall

- 28.8% of participants dream about target and 17.1% dreamed about nontarget
- Target dreams were reported 34.1% of the time with suppression, 28.2% with expression, and 24.3% with mention.

Discussion

- Results Reiterated
 - Pre-sleep references to a person prompted people to report dreams about that person
 - Particularly instructions to suppress thinking about that person
 - Increased Participant's Self-ratings AND Amount of Mentions

Influence of Emotion Muted

- Pre-sleep focus on a target increased references in the dream reports more when the person was a crush than a non-crush
 - There was NO main effect of emotional attraction to the target on dream self-ratings or reports
 - Leading to the conclusion that suppressed thoughts rebound whether they are wished for or not
- *Limitation

Possible Explanations

- Relative deactivation of prefrontal areas related to executive functioning
- Weak semantic associations are generally more accessible during post-REM awakenings
- Anterior Cingulate Activation accompanies operating process functioning and is enhanced during REM sleep

Implications

- Threat-Simulation Theory
 - Any functional utility of “Threat Dreams” may just be a bi-product of the pursuit of mental peace while awake.
- Activation Synthesis Theory
 - Some information during wakening may actually be used during the dream synthesis process

“The Finding that suppressed thoughts rebound in dreams provides a bridge linking an early insight of psychoanalysis to the discoveries of cognitive neuroscience”