# Dream Rebound

The Return of Suppressed Thoughts in Dreams

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#### Abstract

Subjects were given five minutes before going to sleep to write their thoughts. The subjects were assigned to write about three conditions. Suppression, expressions, or mention with the intent to report dreams of a target person. Participants within the suppression condition were likely to have an increase in dreams including the target person. Despite the subjects emotional attraction to the person, dreams were measured by the participants' raters' coding and self-ratings.

#### Intro

- Freud's account of dreams and the unconscious
  - "wishes suppressed during the day assert themselves in dreams"
- Suppressed thoughts in waking tend to return in waking
- The theory of ironic process of mental control
  - Interaction of two processes: conscious operation process and unconscious automatic ironic process
- Prior traumatic memories manifest in dreams
  - Emotions and suppression
  - Deactivation of areas in the prefrontal cortex

## Method

- Participants and design:
  - 330 undergraduates from the University of Texas at San Antonio participated for credit in an introductory psychology course. Each was randomly assigned a condition of a 3 (instruction: suppression, expression or mention) by 2 (instruction target: crush vs. noncrush) design.
- Procedure:
  - Participants were given study materials in sealed envelopes and instructed to wait until they were ready for bed to open the envelope.
  - In the instructions they were asked to think of two people in their lives, a "crush" and a "noncrush". Participants identified each person by initials and rated their attraction to the person on a 7-point scale.
  - In each condition the participants were asked to record their stream-of-consciousness during the 5 minute period and to indicate thoughts of the target with check marks.
  - They were then asked to go to sleep like normal.
  - The following morning they were instructed to record all dreams from the night immediately upon awakening and also also to rate how much they had felt they dreamed about their crush and non crush.
  - One of the two raters blind to condition and hypotheses coded the stream-of-consciousness reports and dream reports for number of mentions of crush and noncrush, and also rated emotional intensity, valence, and eroticism of the dreams.

#### Results

#### Manipulation Effectiveness:

**Effectiveness of Pre-Sleep Instructions** (# of Checkmarks)

Expression M=5.39 Suppression M=2.87 Mention M =2.55

References to the target in the streamof-consciousness protocols

Mention M = 1.04Expression M = 0.72Suppression M = 0.27 Attraction (scale 1-7) Crush M= 5.8 Non-crush M=3.14

> In terms of thought re-occurrence suppression produced lower levels in comparison to Mention & Suppression

#### Results

#### **Dream Self-Ratings**

- 87.7% of participants reported dreaming the night prior
- Emotional connection to target (crush vs. non-crush) did not have an effect on thought suppression and the dream results
- Suppression increased dreaming about target

#### Results

Dream Reports

When the target was a crush, pre-sleep

activities resulted in higher dream reference

to that target

- Suppression lead to the most dream references
- Expressions and Mention references did not

differ but were both less than suppression

28.8% of participants dreamed about

targets

Of dreams about target....

Suppression accounted for 34.1%

Expression accounted for **28.2%** 

Mentioning accounted for **23.4%** When the target was a crush, suppression enhanced eroticim of the dream

- The three presleep preferences in order of "importance"
  - -Trying not to think about the target (aka suppression)
  - -Thinking about the target (aka expression)
  - -Thinking about anything at all after noting the target 's identity (mention)

The instruction of suppression increased the emergence of the person in their dreams as identified by self-ratings and those by neutral raters.

<u>This is an interesting thought that the suppression of your thoughts during</u> <u>the day can enter your dreams. Stuff of nightmares really.</u>



- Freud's hypothesis was that suppressed wishes assert themselves in dreams
- This study suggests he is only half right. It reaffirms the idea that suppressed thoughts do enter dreams, however, they enter dreams whether they are "wishes" or not.

How do the suppressed thoughts enter our dreams?

One hypothesis (Braun et al., 1997; Hobson et al., 2000; Muzur et al., 2002)

- 1. Enter REM sleep
- 2. Changes in brain activation
- 3. Deactivation of prefrontal areas (where control in dreams is regulated)
- 4. Inhibits the suppression operating process
- 5. Releases ironic process
- 6. Increases the accessibility to previously suppressed thoughts

Hypothesis = inhibited suppression operating process

Alternative hypothesis (Stickgold, Scott, Rittenhouse, & Hobson, 1999):

• Brain activation in dreaming enhances weak ironic monitoring (weak monitoring = suppressed thoughts can surface)

- Demonstrates easiest accessibility to weak semantic associations during post-REM awakenings.

- This process is able to occur without any reduction in operating processes.
- The activation of the anterior cingulate (located in prefrontal cortex) during operating-process functioning and enhanced in REM sleep suggests operating process may not be fully disabled in dreaming

Thanks for giving me an explanation and then potentially disproving it guys JK

The point:

- There may just be more factors involved than simply the deactivation of the operating process.
- The changes in brain activation are the important factor.

#### Reference

Wegner, D. M., Wenzlaff, R. M., & Kozak, M. (2004). Dream Rebound The Return of Suppressed Thoughts in Dreams. *Journal of Psychological Science, 15*(04), 232-236.