

# Professor Emeritus Mark Blagrove

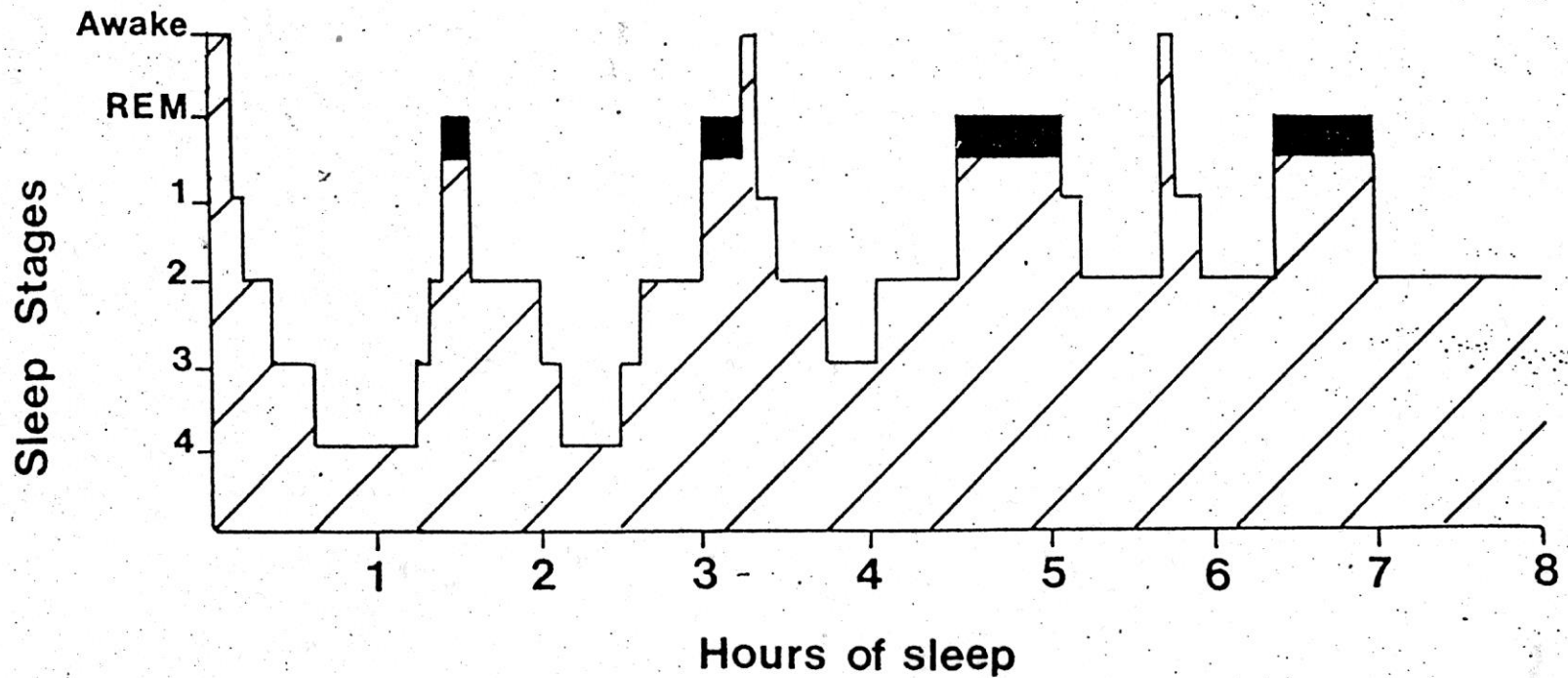
## Swansea University

### Cybersecurity and malign uses of dreams

Universities of Bristol and Bath Dreams and  
Cybersecurity event, 29th April 2026



Swansea University  
Prifysgol Abertawe



**Fig. 1.2** A simplified 'hypnogram' of sleep stage changes over the night in young human adults.

Solms, 1997, 2000

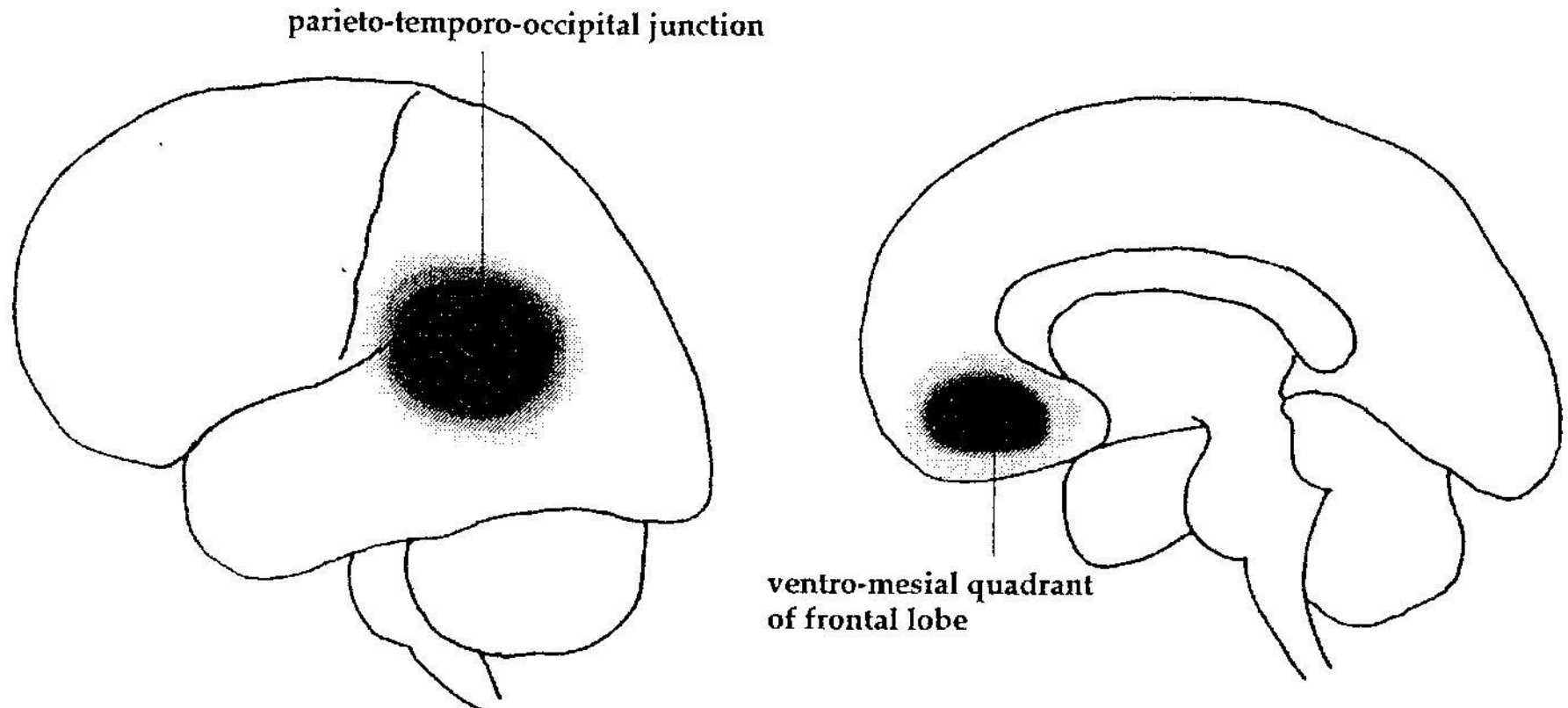


Figure 2. Lesion sites associated with loss of dreaming and preserved REM sleep.

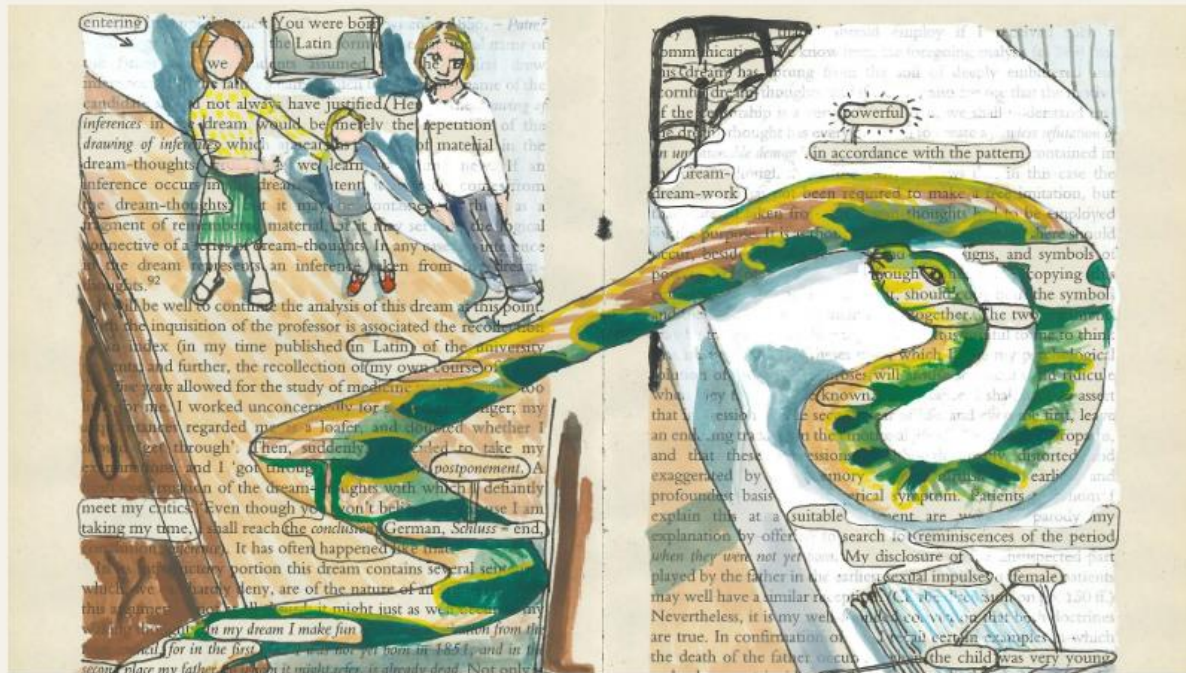
# We don't know why dreams are produced

There are three types of theories:

1. Dreams are epiphenomena, decorative spandrels (Domhoff, Foulkes, Flanagan), a by-product of waking life imagination
2. Dreams, even unrecalled dreams, process our memories, emotions, virtual reality learning (Revonsuo; Nielsen & Levin; Stickgold; Walker)
3. We produce dreams so as to tell them to others, this enables self-disclosure, empathy and group bonding (Blagrove et al., 2019; Blagrove & Lockheart, 2023).

The reason we dream  
might be to bring us  
closer together

by Mark Blagrove



Dream of an anaconda entering and lying down in the bedroom ©Julia Lockheart

**Mark Blagrove** is professor of psychology at Swansea University in Wales, UK. He is co-author with Julia Lockheart of *The Science and Art of Dreaming* (2023).

Edited by Christian Jarrett

Research has tended to focus on what dreams do for us when we're sleeping – but what if the benefits play out the next day?

- <https://psyche.co/ideas/the-reason-we-dream-might-be-to-bring-us-closer-together>

# For all the types of theories, we know:

- Dreams refer to our waking life concerns and emotional events.
- Dreams refer to waking life in a metaphorical manner, rather than direct copies / replays of waking life experiences (exception to this is PTSD nightmares).

- We can experimentally manipulate dream content by presenting stimuli before sleep (e.g., dream incubation).
- We can experimentally manipulate dream content by stimuli during sleep (Dormio).
- And we can combine these methods by Targeted Dream Incubation, presenting a stimulus before and during sleep.

# This can be benign or beneficial.

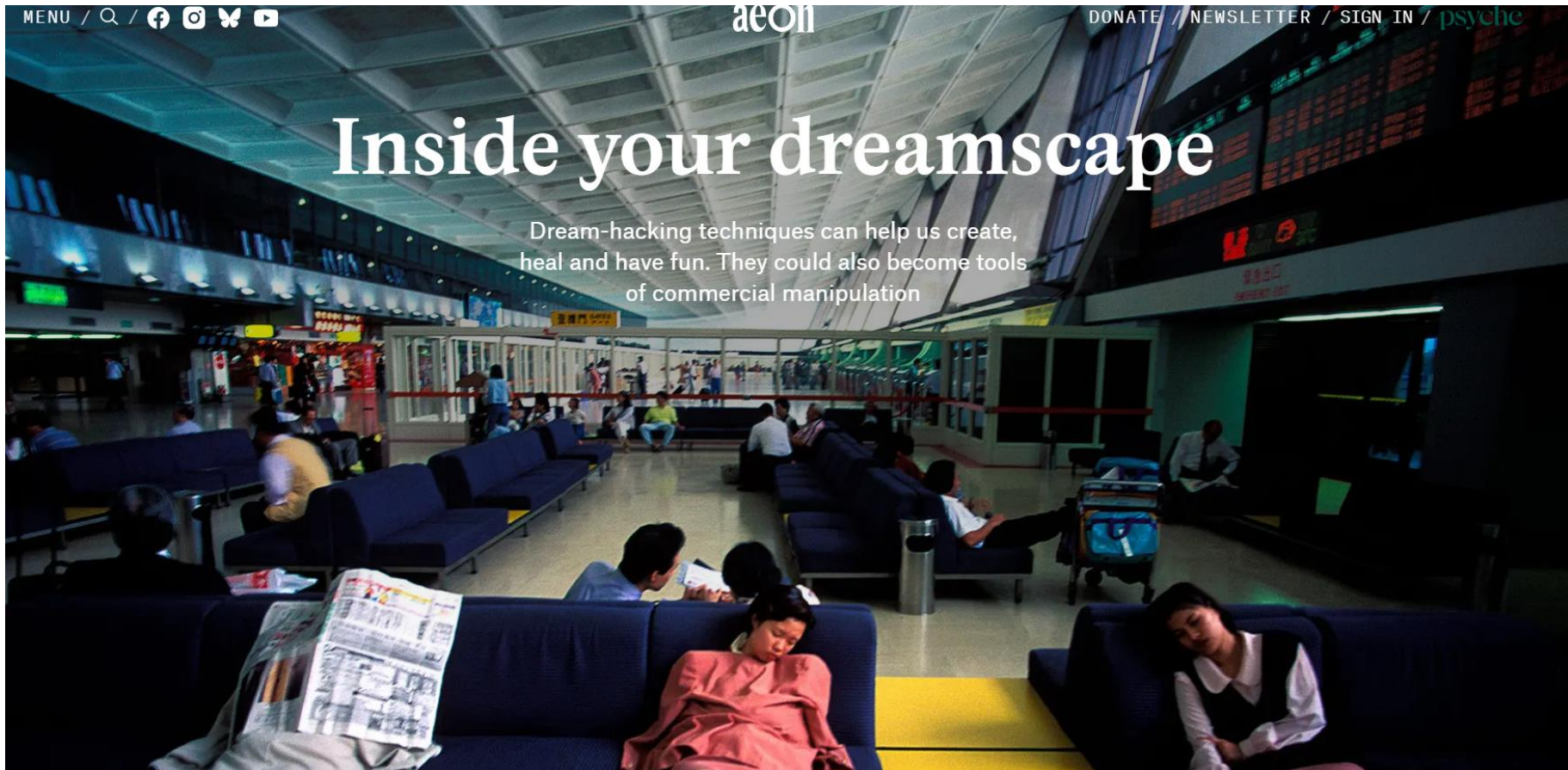
- Imagery Rehearsal Therapy: Imagining and rehearsing a changed nightmare decreases frequency of nightmares
- Think about a problem or concern in the hope that you dream of the problem or concern
- TDI has been used for increasing creativity, increasing lucid dreams, and decreasing nightmares

# But dream manipulation could be malign

- <https://aeon.co/essays/dreams-are-a-precious-resource-dont-let-advertisers-hack-them>

# Inside your dreamscape

Dream-hacking techniques can help us create, heal and have fun. They could also become tools of commercial manipulation



- Prior to the 2021 Super Bowl Molson Coors ran adverts to participate in Targeted Dream Incubation aimed at increasing purchase of the beer.
- Participants watched a dream inducing video on a website three times. They got free beer for taking part and free beer for sending the link to a friend.

- The 90-second video had flowing waterfalls, cool mountain air and Coors beer.
- Coors brand features mountains and waterfalls on its logo.



Coors Light  
Brewery, Inc.  
10000 Coors Blvd.  
Golden, CO 80401  
1-800-4-A-Beer  
www.coors.com

PLEASE DRINK RESPONSIBLY  
Coors Light is a trademark of  
Brewery, Inc. All other trademarks  
are the property of their respective  
owners. © 2000 Brewery, Inc.

4  
568ml  
ALC 4% VOL

Coors  
LIGHT

COLD ACTIVATED CANS

10 CAN

GET  
COLDER  
TO COLD

- Subliminal advertising when awake isn't allowed
- Surveys showed a majority of advertisers would engage in this practice and a majority of the population would accept it!

# These methods can work

- In smokers, targeted odours during sleep (rotten eggs, rotten fish, cigarette smoke) decreases smoking, the odours don't have this effect if given when awake.
- There are already apps that play music at bedtime, and that record sleep, so stimulation to alter dreams during sleep is very feasible.

- See also in 2021
- <https://www.science.org/content/article/are-advertisers-coming-your-dreams>
- 40 dream researchers asked for regulation of commercial dream manipulation.

- Many of the 40 sleep and dream researchers hold that dreams have a memory or emotion processing function, directing us to explore new possibilities, make new connections and filter our waking life experiences so that we process those that are most important.
- They warn against hijacking this system.

# Interpreting dreams

- We have looked at benign, beneficial and malign influences on dream content.
- We now look at benign, beneficial and malign influences on dream interpretation.

- Earlier we had a dream interpretation event that aimed to be as non-directive as possible.
- Recall the dream, speak of waking life, relate the two. It is relatively atheoretical and doesn't aim to prejudge or force interpretations.
- And AI can do this.

# Ratings of accuracy and insight following dream interpretation by ChatGPT

Mark Blagrove<sup>1</sup>, Laura Roklicer<sup>1</sup>, Jamie Bueno<sup>2</sup>, Oscar Austin<sup>1</sup>, Harriet Foster<sup>1</sup>, and Mea Webb<sup>1</sup>

<sup>1</sup>School of Psychology, Swansea University, UK

<sup>2</sup>School of Psychology, Cardiff University, UK

**Summary.** There have been many claims that ChatGPT can provide insightful interpretations of dreams. This study tests whether ChatGPT, if given a participant's report of a recent dream, a report of their recent waking life, and their associations to the dream contents, can achieve outcome ratings by the dreamer comparable to those obtained after discussions of dreams in a lay dream group or with a therapist. The Gains from Dream Interpretation (GDI) questionnaire was used to assess participants' evaluations of the output of ChatGPT regarding their dream. The mean GDI subscale scores were compared to subscale means from previous studies of group and therapist dream interpretations. 30 participants (mean age = 30.72 (SD=13.39)) completed this pre-registered study. Mean GDI insight-exploration subscale score was significantly lower than means for this variable in previous group and therapy studies, and each of the item scores was lower than for those previous studies. However, participants rated the ChatGPT dream interpretations as moderately accurate and as enabling some personal insight. Scores on the exploration-insight, personal insight and interpretation accuracy variables had no significant correlations with word length of the reports inputted to ChatGPT, nor with the individual difference measure Attitude Towards Dreams. As ChatGPT, other generative AI chatbots, and dedicated dream interpretation apps develop, the methods and evaluation questionnaire from the current study are available to assess the value of dream interpretations that the systems produce. This will enable comparisons between different systems and enable longitudinal assessment of individual systems across time and software version releases.

**Keywords:** Dream, chatbots, ChatGPT, dream interpretation, generative AI

## 1. Introduction

### 1.1. Uses of generative Artificial Intelligence

Generative artificial intelligence, the use of AI to create new content, has had a great impact across numerous sectors, such as industry (Javaid et al., 2023), academia (Rahman & Watanabe, 2023) and healthcare. Modern patient monitoring systems, clinician support tools, therapeutic interventions and treatment outcome predictions are assisted by such generative AI (Colledani et al., 2023; Milne-Ives et al., 2022). This includes interventions for mental health, which has been categorized as a leading cause of global disability (World Health Organization, 2022). The familiar one-to-one form of mental health treatment consultations are quickly becoming inadequate against the recent increase in poor mental health. Utilizing artificial intelligence in mental health care has been suggested as a method to reduce resource constraints, emotional labour and professional burnout of psychotherapists (Wang & Zhang, 2024).

Generative AI has recently been used to enable a new generation of chatbots, which use conversational artificial

intelligence (CAI) and are sophisticated in their understanding of users' questions and intentions. Raile (2024) describes how such modern chatbots can diagnose, give information and advice, provide emotional support with empathy, and assist with skills training. One of these modern chatbots is ChatGPT. Raile asks whether ChatGPT can provide a useful tool for patients and/or psychotherapists and even serve as a substitute for psychotherapists. Such a possibility is supported by findings that AI systems such as ChatGPT possess the ability to process complex human emotions (Cheng et al., 2023; Elyoseph et al., 2023) and can be used to discover new insights from the text of multiple conversations with the same patient (Eshghia & Eshghia, 2023).

For Raile (2024), 'There is no comparable technology as easily accessible as ChatGPT, which is equipped with comprehensive information about mental health problems, real-life answers and can even provide interpretations [of patient material]'. Alanezi (2024) assessed the use of ChatGPT3 for delivering mental health support for at least 15 minutes per day for 14 days to individuals with anxiety, depression or behavioural disorders. More than 50% of the participants stated that ChatGPT was useful for emotional support, self-assessment and monitoring, and psychotherapeutic exercises. Similarly, Siddals et al. (2024) recruited individuals with various mental health or interpersonal issues. In a qualitative analysis responses to ChatGPT showed themes of 'emotional sanctuary', including understanding the user, and 'insightful guidance', especially for relationships and for seeing the other person's perspective in conflict. For many participants there was a positive feeling of 'joy of connection' to the chatbot.

#### Corresponding address:

Mark Blagrove, School of Psychology, Faculty of Medicine, Health & Life Science, Swansea University, Singleton Park, Swansea, Wales SA2 8PP, UK.  
Email: m.t.blagrove@swansea.ac.uk

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*Table 1.* Means and standard deviations for Gains from Dream Interpretation subscales for the current study (n=30) and previous studies, with Welch's (2-tail) t-test comparisons between the current and previous studies. Mean of dream interpretation accuracy rating is presented also.

| Variable                                      | Study                         | Mean | SD   | t    | df | p     |
|-----------------------------------------------|-------------------------------|------|------|------|----|-------|
| Exploration insight gains                     | Current Study (n = 30)        | 6.86 | 1.46 |      |    |       |
|                                               | Edwards et al. 2013 (n = 11)  | 8.17 | 0.54 | 4.19 | 38 | <.001 |
|                                               | Edwards et al. 2015 (n = 11)  | 7.82 | 0.84 | 2.61 | 31 | .014  |
|                                               | Blagrove et al. 2019 (n = 30) | 7.60 | 0.88 | 2.39 | 47 | .022  |
|                                               | All Hill Studies (n = 437)    | 7.40 | 1.15 | 1.98 | 31 | .056  |
| Personal insight gains <sup>a</sup>           | Current Study (n = 30)        | 6.13 | 2.03 |      |    |       |
|                                               | Edwards et al. 2015 (n = 11)  | 6.60 | 1.43 | .83  | 25 | .416  |
| Experiential gains                            | Current Study (n = 30)        | 6.24 | 2.24 |      |    |       |
|                                               | Edwards et al. 2013 (n = 11)  | 7.28 | 1.94 | 1.46 | 20 | .160  |
|                                               | All Hill Studies (n = 437)    | 7.03 | 1.56 | 1.90 | 30 | .066  |
| Action gains                                  | Current Study (n = 30)        | 5.48 | 1.98 |      |    |       |
|                                               | Edwards et al. 2013 (n = 11)  | 5.78 | 1.04 | .63  | 33 | .536  |
|                                               | All Hill Studies (n = 437)    | 6.51 | 1.34 | 2.81 | 30 | .008  |
| Accuracy of dream interpretation <sup>b</sup> | Current study (n = 30)        | 7.33 | 1.09 |      |    |       |

Notes: <sup>a</sup>Two One-Sided Tests equivalence testing. The lower and upper bounds for the procedure were set as for a small effect size, this being 0.2 x pooled SD = 0.38. For lower bound one-sided t-test,  $t(21)=0.158$ ,  $p=.562$ . For upper bound one-sided t-test,  $t(21)= -1.495$ ,  $p=.075$ .

<sup>b</sup>Accuracy of dream interpretation ratings in answer to question 'Overall, how accurate do you find the ChatGPT interpretation of your dream?', ratings from 1 = extremely inaccurate to 9 = extremely accurate. Frequencies for responses: response=4, n=1, 3.33%; response=6, n=4, 13.33%; response=7, n=12, 40.00%; response=8, n=9, 30%; response=9, n=4, 13.33%.

<https://journals.ub.uni-heidelberg.de/index.php/IJoDR/article/view/12641/111613>

- But interpretations can be directed, such as aiming for a Freudian or Jungian interpretation.

- Fischer, C., & Kächele, H. (2009). Comparative analysis of patients' dreams in Freudian and Jungian treatment. *International Journal of Psychotherapy*, 13(3), 34–40.

- Thirty dreams from each of eight patients—four in Freudian therapy and four in Jungian therapy—were compared both in terms of kinds of content and in terms of changes over time. The patients were matched in diagnosis, age, sex, and social background. In the first third of the dream series, Freudian patients dreamt more “Freud-syndrome” dreams, and Jungian patients dreamt more “Jung-syndrome” dreams, producing a significant difference. In the last third the difference was no longer statistically significant.
- These findings support the hypotheses that the theoretical orientation of the therapist exercises an initial influence on the dreams of the patient, and that this influence diminishes as the treatment progresses and the patient becomes more independent from the therapist.

Could dreams and dream  
interpretation be subject to malign  
influence?

## **Changing Beliefs and Memories Through Dream Interpretation**

GIULIANA A. L. MAZZONI,<sup>1\*</sup> ELIZABETH F. LOFTUS,<sup>2</sup>  
AARON SEITZ<sup>2</sup> and STEVEN J. LYNN<sup>3</sup>

<sup>1</sup>*University of Florence, Italy*

<sup>2</sup>*University of Washington, USA*

<sup>3</sup>*State University of New York, Binghamton, USA*

### **SUMMARY**

Autobiographical memory is malleable, but how much can we change people's beliefs and memories about the past? We approached this question with a method designed to supply subjects with a highly personalized suggestion about what probably happened in their childhood. In the current study, one group of subjects (the 'Dream' subjects) had their dreams interpreted to indicate that they had experienced a critical childhood event (e.g. being harassed by a bully) before the age of 3. Relative to control subjects who did not receive personalized suggestion, the Dream subjects were more likely to increase their belief that they had the critical experience, and approximately half of these also produced concrete memory reports.

These findings are discussed in terms of their implications for autobiographical memory, and also for psychotherapy practice. Copyright © 1999 John Wiley & Sons, Ltd.

- [https://onlinelibrary.wiley.com/doi/10.1002/\(SICI\)1099-0720\(199904\)13:2%3C125::AID-ACP560%3E3.0.CO;2-5](https://onlinelibrary.wiley.com/doi/10.1002/(SICI)1099-0720(199904)13:2%3C125::AID-ACP560%3E3.0.CO;2-5)

# Could dreams and dream interpretation be subject to malign influence?

- Could cult or religious members be targeted and be susceptible to changes in dream content and directed interpretation?

International | Click follow for salvation

# Social media are helping cults to recruit and control members

The internet has replaced door-to-door evangelists with online influencers

 Share

Jan 8th 2026 | 7 min read

IT BEGAN AS just another niche game inside Roblox, an American video-game platform. Players wandered through dark forests, exchanged clues and chatted as they explored. Within these spaces a group of adults steered some children into Discord, an online messaging service. They told them that the game's geometric symbol had real-world power and could connect them to a "higher state". Entry to the group's inner circle required proof of loyalty. Children were asked to film

- <https://www.cultnews101.com/2026/01/social-media-are-helping-cults-to.html>

# How Do They Control: An Insight into Cult Manipulation

Yining Zhang\*

UWC ISAK Japan, Karuizawa, Japan

\* Corresponding Author Email: 2024.yining.zhang@uwcisak.jp

**Abstract.** This paper is focused on the mechanisms behind cult control, both existing methods and mindset behind the implementation. It generally divides cult leaders' techniques into two broad categories and discusses them with reference to the other: physical and psychological. Physical controls are based on changing an individual's biological body structure and function, including diets, drastic activities, and even drug usage. Psychological controls, on the other hand, are the methods that are more generally known for manipulation and are mostly based on one's mind. The essay provides an outline of the set of means behind the manipulation of cult members and illustrates the methods with specific cases connected to the impacts that the methods would have on individuals. It discusses the specific cases of Heaven's Gate and Jenny (cult pseudo-personality), using them to demonstrate possible outcomes of cult control to make a clear connection between the manipulation methods and their impacts.

**Keywords:** Cult manipulation, personality, psychological control, physical control.

## 1. Introduction

The first definitions of “cult” are based on spiritualism, an ideology that originated in the United States in 1848. Spiritualists believe in the proven survival of one's mind after physical death and that communication with the spirits of the dead can be achieved through various means [1]. This ideology is closely related to a lot of religions, which is why the earliest cults probably stemmed from major religions such as Christianity, and since they are sub-branches that are usually small in size-are believed to be “the most ephemeral of all types of religious structure. [2]” However, cults are no

[https://www.researchgate.net/publication/376961754\\_How\\_Do\\_They\\_Control\\_An\\_Insight\\_into\\_Cult\\_Manipulation](https://www.researchgate.net/publication/376961754_How_Do_They_Control_An_Insight_into_Cult_Manipulation)

- **‘Hypnosis and Trance** Hypnosis is defined as a changed state of awareness where relaxation is furthered to increase concentration. In a cult setting, cult leaders use hypnosis to plant ideologies that are beneficial to them into members’ consciousness.’
- **‘Guided Imagery** Guided imagery is the process of not thinking but only picturing while listening to a story that cult leaders usually tell in a repetitive or rhythmic manner.’
- No explicit mention of dreams. But, our job is to imagine what could be done.

# How could dreams be used in a malign way?

- Data collection about the life of the person.
- Using interpretation to make suggestions about the self and life of the person.
- Using interpretation to validate the cult's/religion's beliefs and practices.
- To alter/influence dream content.
- (Offline, bonding with the group, hearing the dreams of the leader.)



# Rev Sun Myung Moon





- ‘The spiritual interpretation of dreams is a practice that has been common with Moon and many of his more “spiritual” followers.’
- ‘During the time I spent doing research at Camp K, a Unification workshop in California, before breakfast each morning we were asked to recount our dreams and these were interpreted for us to explain what, we were told, was their true significance.’
- Barker (2018, p.24)

- Barker, E. (2018). The unification church: a kaleidoscopic introduction. *Society Register*, 2(2), 19-62.  
<https://doi.org/10.14746/sr.2018.2.2.03>

- Literature search, although plausible, there is little in the literature on cult use of dreams.
- There is a large literature on the history of Christian, Jewish, Hindu, and Islamic dream interpretation. Even to the extent of books about the Talmudic and Kabbalistic background to Freud's theory of dream interpretation.

# The Dream Will Tell: Militant Muslim Dreaming in the Context of Traditional and Contemporary Islamic Dream Theory and Practice

Iain R. Edgar

University of Durham

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*Al-Qaeda and Taliban leadership and membership appear to have been motivated, inspired, and guided by certain dreams. Their understanding of dreams seems to draw at least partly on traditional and contemporary Islamic dream theories. If this hypothesis is correct, then there is a need for the urgent study of Islamic Jihadist political/religious conversion and guidance dreams across the Middle East. The dream—as experienced, reported, and interpreted—is now a significant aspect of the global conflict between Al-Qaeda and its associates versus the core value system of Western civilization.*

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**KEY WORDS:** dreaming; Islam; Al-Qaeda; Taliban

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This article, given the obvious data collection problems, attempts to sketch an assessment as to whether some of the Al-Qaeda and Taliban leadership and its members are and have been motivated, inspired, and apparently guided by certain dreams and whether their understanding of dreams draws on traditional Islamic dream theories.

The dream has a special status in Islam, as the Koran is said to have been partly revealed to the Prophet Mohammed in dreams, as well as in visions (Machatschke, 1995, p. 3); Muhammed is thought to have made his famous “night journey” or *Lailatal-Miraj* to Jerusalem in a dream (Coxhead & Hiller, 1990). In this night journey he is believed to have seen the secrets of the cosmos. Within Islam there is a range of understandings as to the nature of this sacred journey, ranging from that of less fundamentalist Muslims who perceive it to be a divine dream to some Muslim sects who view it as a concrete trip. Gouda (1991) described this apparently momentous journey as follows:

The vision in question was the ascension of the Holy Prophet: he was transported from the sacred Mosque (of Makkah) to the Al-Aqsa (the farthest) mosque (of Jerusalem) in a night and shown some of the signs of God. The Hadeeth [sayings and traditions of the Muslims’ Holy Prophet] gives details of this night journey wherein the Prophet was first

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This article was first presented at the 2003 “Pakistan Workshop: Islam in South Asia” held at the Rook How, Satherthwaite, Lake District, United Kingdom. I am very grateful, particularly to Stephen Lyon, University of Durham, and workshop organizer, who encouraged me to write my ideas on this subject for the workshop. Also, I thank Miriam abou Zahab, who gave me valuable advice on this subject, some of which is included in the article. Finally, I appreciate the general support given me by workshop participants.

Correspondence concerning this article should be addressed to Iain R. Edgar, Department of Anthropology, University of Durham, 43, Old Elvet, Durham DH1 3HN, United Kingdom. E-mail: I.R. Edgar@durham.ac.uk

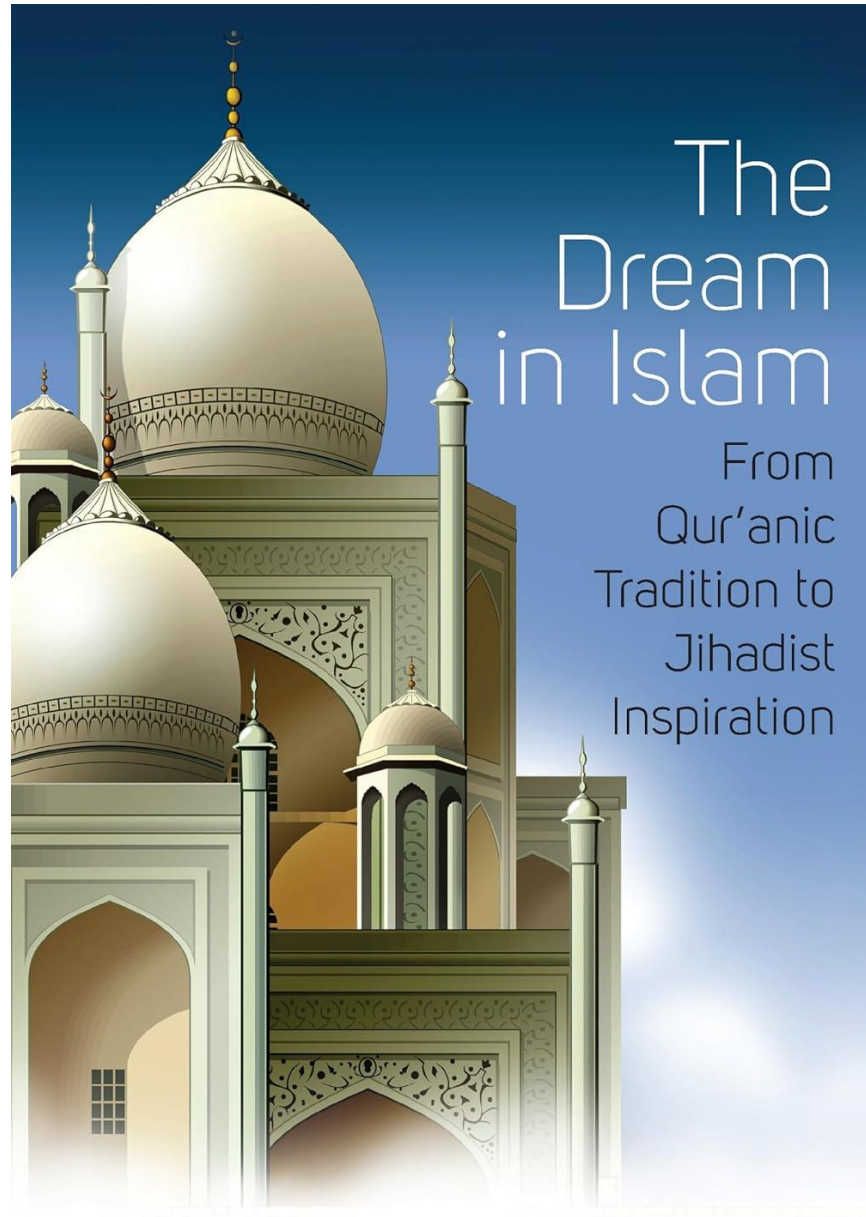
- [https://www.researchgate.net/publication/232453220\\_The\\_Dream\\_Will\\_Tell\\_Militant\\_Muslim\\_Dreaming\\_in\\_the\\_Context\\_of\\_Traditional\\_and\\_Contemporary\\_Islamic\\_Dream\\_Theory\\_and\\_Practice/link/53fda2230cf2364ccc08e2a2/download](https://www.researchgate.net/publication/232453220_The_Dream_Will_Tell_Militant_Muslim_Dreaming_in_the_Context_of_Traditional_and_Contemporary_Islamic_Dream_Theory_and_Practice/link/53fda2230cf2364ccc08e2a2/download)
- <https://psycnet.apa.org/doiLanding?doi=10.1037%2F1053-0797.14.1.21>

- Mullah Omar founded the Taliban movement in Afghanistan in 1994 following a dream.
- 9th November 2001 interview with Osama bin Laden who spoke of a follower dreaming of Al-Qaeda members becoming pilots. Bin Laden was concerned that the 9/11 plot could have been known about through dreams.
- (Iain Edgar also explains the importance given to dreams within the very spiritual tradition of Sufism.)

# Richard Reid, 'the shoe bomber'

- 'Reid described a dream in which he was waiting for a lift but when a truck arrived, it was already full, and he had to wait for a smaller car.'
- He wrote 'that the truck was a symbol that he had not been with the hijackers who destroyed the World Trade Centre.'
- The Times, 30<sup>th</sup> Jan, 2003

- <https://www.thetimes.com/travel/advice/shoe-bomber-likely-to-be-jailed-for-life-lsr5bm9n2nh?msockid=137b9c26b49b6d66076f8a52b5c56ce2>



# The Dream in Islam

From  
Qur'anic  
Tradition to  
Jihadist  
Inspiration

IAIN R. EDGAR

- What if apps or AI could be used to guide people away from mainstream religious content and interpretations towards more militant or cult content and interpretations?

- Aside from the generalised AI mentioned above, there are now dedicated dream interpretation apps.



DREAM INTERPRETATION

# Best Dream Interpretation Apps (2026): An Honest Comparison

I tested every major dream app on the market and logged the same dream into each one. Here's what I found — and why one app's methodology is fundamentally different from all the others.

 Tarak Uday



## Decode Your Dreams

Ancient wisdom meets modern tools.  
Understand what your subconscious is  
telling you.

Decode Your Dream —

- <https://usechitta.com/articles/best-dream-interpretation-apps>

- Decode your dream
- Dreamly
- Chitta
- DreamApp
- DreamBot
- Oniri
- .....

- Christian

Dreamnl

Dream Interpretation

Christian Dream Interpretation

- Islamic

Ahlami

Muslim Dream / Dream Insight

My Islamic Dream

Manami

# Cybersecurity

- Could apps be created that aim to change dream content and elicit interpretations that promote membership, donations, hate, criminality, or even terrorism?

# Thank you!

- m.t.blagrove@swansea.ac.uk
- @mark\_blagrove
- @DreamsID
- DreamsID.com

