

v1: 18 December 2023

Research Article

Dreams as Portals to Parallel Realities and Reflections of Self

Peer-approved: 18 December 2023

© The Author(s) 2024. This is an Open Access article under the CC BY 4.0 license.

Qeios, Vol. 5 (2023)
ISSN: 2632-3834

David Leong^{1,2}, Oxana Zinych²

1. University of Canberra, Australia; 2. Charisma University, Turks and Caicos Islands

This paper presents an exploratory study into the phenomenon of dreams, probing the layers of consciousness that manifest within them. The discourse surrounding the nature and purpose of dreams is longstanding and multifaceted, engaging scholars across the domains of philosophy, psychology, and neuroscience. Dreams have been historically perceived as mirrors reflecting our conscious waking life, laden with symbolic representations of our desires, fears, and experiences. Conversely, a riveting conjecture exists that dreams might also function as conduits to alternative dimensions or elevated states of consciousness, suggesting a more profound and expansive role than traditionally conceived.

The investigation navigates this dichotomy, scrutinising dreams as multifunctional entities simultaneously serving as echo chambers of our lived reality and possible gateways to non-ordinary realms. This inquiry is rooted in the dual aspects of dreams: as vehicles for processing and integrating daily experiences, and as potential experiences of a distinct ontological status where the dreamer may access realities that transcend the familiar confines of space and time.

Employing a cross-disciplinary approach, this paper examines the transformative potential of dreams, considering both the psychodynamic interpretations that reveal the inner workings of the psyche and the transpersonal perspectives that situate dreams within a broader existential and spiritual context.

This paper seeks to elucidate dreams' profound effects on our psychological landscape, shaping our perceptions, behaviours, and perhaps even ontological orientation. It aims to contribute to a deeper understanding of consciousness, challenging the boundaries between subjective and objective reality, and opening avenues for further interdisciplinary research into the mystique of the dreaming mind. Through this exploration, we aim to decipher dreams' content and potential significance as portals to other dimensions of being, inviting us to reconsider the essence of reality as experienced through the dream state.

Corresponding author: Oxana Zinych,
oxana.zinych@charisma.edu.eu

1. Introduction

Dreams have long intrigued humanity, offering a surreal blend of the familiar and the inexplicable (Grotstein, 2013). While some scholars contend that dreams are our brain's way of processing daily

experiences, others posit a deeper, more mystic interpretation, seeing dreams as a conduit to our unconscious desires and fears (Grotstein, 1979). This duality presents a fascinating discourse: Are dreams mere reflections of our waking lives, or could they potentially be gateways to realms where the known laws of reality are suspended? The intensity and vividness of dreams often blur the boundaries between the waking world and the dream realm, leading to

profound existential and philosophical questions about the nature of consciousness, its manifestations, and its potential dualities. This paper explores these dimensions, critically analysing the varying perspectives on dreams and their role in our understanding of consciousness, particularly by Freudian psychoanalysts, and scrutinised by modern neuroscientists as complex phenomena arising from the brain's nocturnal activities. This paper embarks on an interdisciplinary exploration of dreams, juxtaposing their traditional role as reflective surfaces of our waking lives against the provocative hypothesis that they may act as portals to parallel realities or higher states of consciousness.

The pursuit of understanding dreams stretches back to the dawn of recorded history, where dream interpretation was seen as a divine dialogue or an omen-bearing communication (Husser, 1999). In many cultures, dreams were venerated as sacred communiqués, ineffable experiences bridging the mundane and the mystical. This veneration has evolved over millennia into a more scientific scrutiny. However, the essential mystery of dreams — their origins, significance, and true nature — continues to elude definitive understanding. From a philosophical standpoint, dreams challenge the ontological categorisations of experience. They blur the line between the real and the imagined, compelling us to question the fabric of reality itself (Fein, 2019). Philosophers have pondered whether dreams could provide insight into alternative modalities of existence, perhaps revealing that what we perceive as reality is but one realm among many possible worlds. This metaphysical discourse dovetails with psychological perspectives, which traditionally view dreams as the mind's processing of daily experiences, emotional residues, and subconscious impulses.

Psychologically, dreams have been analysed as manifestations of the deepest recesses of the psyche. Freud's psychoanalytic theory posited that dreams are the guardians of sleep, fulfilling unmet desires through a symbolic language that requires meticulous decryption (Freud, 2021). Jung expanded this view by suggesting that dreams tap into a collective unconscious, a shared well of archetypes and symbols (Jung, 1936). This paper will examine such theories in the light of contemporary research, which considers dreams as cognitive simulations, extensions of our waking consciousness that consolidate memories, process emotions, and rehearse responses to potential real-world scenarios.

Neuroscientific advances have shed light on the physiological processes underpinning the dream state.

Rapid Eye Movement (REM) sleep, the stage most associated with vivid dreaming, is characterised by heightened brain activity that mirrors wakefulness, suggesting an intrinsic function of dreams in the maintenance of cognitive and emotional health (Hori et al., 2008). Furthermore, the emergence of lucid dreaming as a subject of scientific inquiry — where the dreamer becomes aware of dreaming and can exert control over the dream narrative — provides a unique vantage point from which to explore the malleable nature of consciousness and the potential of dreams as experiential realms (LaBerge, 1985).

Notwithstanding the scientific insights into the mechanistic aspects of dreaming, there remains an open question regarding the transcendental qualities of dreams. Can dreams be merely the mind's nocturnal musings, or do they represent gateways to a broader expanse of consciousness? Various spiritual traditions and some contemporary transpersonal psychologists posit that dreams can be conduits to spiritual insight and transformation, providing access to knowledge and realms beyond empirical reach (Davis, 2003).

The paper will navigate through these diverse landscapes of thought, integrating philosophical musings, psychological theories, neuroscientific data, and spiritual conceptions of dreams. The interdisciplinary approach offers a rich tableau for considering dreams as complex phenomena that straddle the subjective and objective, the personal and the universal, the scientific and the spiritual.

In developing this paper, the subsequent sections will delve into the historical perspectives on dreams, tracing the arc from ancient dream auguries to the psychoanalytic couch and beyond. This paper then turns to the psychological dimensions of dreaming, discussing how dreams reflect and potentially shape our waking lives by processing experiences and emotions.

The penultimate section addresses the transcendental propositions of dreams, exploring the potential of dreams as experiential realms that expand our conventional understanding of consciousness and reality. Here, this paper entertains the possibility of dreams as experiences of non-ordinary states of consciousness, including discussions on lucid dreaming and the notion of dreams as portals to other dimensions or realities.

The final section synthesises these perspectives into a cohesive analysis, reflecting on the implications of this discourse for our understanding of the human psyche, the nature of consciousness, and the very structure of reality. In the development of this paper, we will

systematically explore each facet of dreams, critically examining the existing literature and contributing novel insights that bridge the disparate disciplines engaged in the study of this enigmatic human experience. This study employs a conceptual research framework underpinned by an extensive review of the existing literature. Its objective is to elucidate the complex and diverse effects of dreams, charting a course for subsequent inquiries and theoretical deliberations.

2. Literature Review

Dreams, those elusive fragments of imagination that occur in the repose of slumber, have historically been a source of profound fascination and mystique (Lusty & Groth, 2013). The attempt to understand the enigma of dreams has threaded through the annals of history, from the divination practices of ancient cultures to the couches of modern psychoanalysis. This multifaceted exploration has led to an intricate tapestry of interpretations and theories that seek to unravel the significance of this universal human experience.

In ancient civilisations, dreams were often seen as messages from the divine, a means through which gods communicated with mortals. The Egyptians, for instance, held dreams in such high regard that they established dream incubation rituals, and dream interpreters were esteemed members of society (Renberg, 2017). Dream interpretation was institutionalised, with specific symbols and motifs understood as omens or divine guidance. Similarly, the Greeks considered dreams to be laden with significance, with renowned figures like Aristotle pondering over their origins and meanings. The famous Oracle at Delphi was believed to receive visions in a dreamlike trance, providing counsel that shaped the course of Greek history (Ustinova, 2009).

Dreams underwent a conceptual transformation as the beacon of rational thought began to rise. The Enlightenment and subsequent intellectual movements shifted the focus from supernatural explanations to inquiries into the human mind (Dennett, 2006). It was not until the advent of psychoanalysis in the late 19th and early 20th centuries that dreams were subjected to a systematic and psychologically oriented interpretation (Shamdasani, 2003). Sigmund Freud, the father of psychoanalysis, posited that dreams are the guardians of sleep, serving as a vent for repressed desires too formidable for the waking consciousness to confront (Freud, 1925). According to Freud (1925), the manifest content of dreams—what the dreamer remembers—is a censored

version of the latent content, the unconscious drives and wishes expressed through the dream's symbolism.

Freud's contemporary, Carl Gustav Jung, took a different stance on the meaning of dreams. He distanced himself from Freud's emphasis on repressed sexuality and instead proposed that dreams tap into the collective unconscious—a repository of archetypes and shared human experiences (Jung, 1936). Jung's interpretation of dreams was that they are not merely personal but are connected to a larger, universal plane of archetypal symbols and narratives. According to Jung (1936), dreams are the psyche's attempt to communicate important messages to the individual, contributing to individuation or the development of the self.

The psychological community, spurred by Freud and Jung's ground-breaking work, began to delve deeper into the world of dreams (Frey-Rohn, 2001). This gave rise to various schools of thought within the discipline. Some viewed dreams as a cognitive process, aligning with Piaget's (1976) theories of assimilation and accommodation, where dreams work to integrate new experiences into existing frameworks of understanding. Others, such as Baylor and Deslauriers (1986), saw dreams as problem-solving tools, with the dream content often representing solutions to problems the dreamer is facing.

As the 20th century progressed, the focus on dreams expanded within psychology (Gamwell, 2000). Research began to explore the role of dreams in memory consolidation, emotional regulation, and trauma processing. The cognitive revolution in psychology introduced new mental-process theories, suggesting that dreams reflect cognitive development and the mind's attempt to organise and interpret daily experiences (Foulkes, 1993).

In tandem with psychological theories, the rise of neuroscience brought about a new dimension to dream research. Advanced imaging techniques allowed for the observation of brain activity during different sleep stages, revealing that the dreaming phase of sleep, known as Rapid Eye Movement (REM) sleep, is characterised by brain patterns similar to those of wakefulness (J. Allan Hobson & Pace-Schott, 2002). This neurobiological perspective brought dreams from the abstract realm into the tangible world of synaptic activity and neurochemical processes, providing a new layer of understanding to the ancient quest to decipher the dream state.

In contemporary times, the study of dreams continues to be a vibrant interdisciplinary research area. The conversation has expanded to include questions about

the nature of consciousness and the mind-body problem, with dreams providing a unique context for examining these philosophical quandaries. The historical and psychological perspectives on dreams serve as a testament to humanity's enduring quest to understand the inner workings of the mind and the deeper layers of the human experience. The fascination with dreams remains undiminished as each epoch reinterprets the significance of this nightly phenomenon through the lens of its own cultural and scientific understandings.

2.1. Contemporary Debates on Consciousness, Wakefulness, and Awareness

The quest to comprehend consciousness has perennially engaged philosophers, presenting a formidable challenge known as the 'hard problem'. This term, coined by David Chalmers in 1995, delineates how and why sentient beings have qualitative experiences (Chalmers, 1995). The 'hard problem' distinguishes itself from the easy problems of consciousness, which concern the mechanisms of cognitive functions and behavioural responses. The 'hard problem' delves deeper, seeking to understand the experiential, subjective aspect of consciousness: the redness of red, the bitterness of sorrow, and the warmth of happiness. This qualitative experience, or 'qualia', remains elusive to objective measurement and scientific explanation (Chalmers, 1995).

Materialist perspectives on consciousness argue that all aspects of consciousness result from physical interactions within the brain (Velmans, 1990). This view posits that mental states are brain states and that neuroscience will eventually fully explain consciousness (Foss, 1995). However, materialism faces the challenge of explaining subjective experience — how the brain's physical processes give rise to the vivid world of our inner lives. In contrast, dualist theories, originating from Descartes' assertion of the mind-body distinction, propose that consciousness is a non-physical substance that exists independently of the brain (Hoffman, 2002). Dualism accommodates the subjective nature of experience but often struggles to provide a mechanism for interacting between the non-physical mind and the physical body.

In response to the limitations of materialism and dualism, non-reductive physicalism offers an alternative. This perspective acknowledges the physical basis of mental phenomena but suggests that mental states are not equivalent to brain states. Instead, it proposes that although physical processes cause mental states, they cannot be reduced to them.

Non-reductive physicalists argue that properties of the mind emerge from the complex organisation of the brain's physical matter, implying that some characteristics of consciousness are irreducible to mere physical explanations (Beckermann et al., 2011).

Panpsychism, another alternative, posits that consciousness is a fundamental and ubiquitous feature of the physical world, much like mass or charge (Chalmers, 2015). Proponents of panpsychism suggest that all matter possesses some form of consciousness, and human consciousness emerges from the combination and complexity of these fundamental conscious entities (Glattfelder, 2019). This view circumvents the dualist problem of explaining how the physical and non-physical interact by integrating consciousness into the basic fabric of reality.

These philosophical perspectives on consciousness offer a range of explanations for the subjective quality of experience. They represent the diversity of thought on one of the most profound questions facing philosophy, psychology, neuroscience, and cognitive science. Each theory contributes to the ongoing discourse, reflecting the multifaceted and interdisciplinary challenges that Chalmers's (1995) 'hard problem' of consciousness presents to the modern understanding of the mind.

The exploration of wakefulness provides another dimension to the academic discourse on consciousness. Wakefulness, typically characterised by alertness and the ability to interact with the environment, often contrasts with states such as sleep or unconsciousness (Kleitman, 1957). However, the relationship between wakefulness and consciousness is complex and multifaceted, particularly when considering states like dreaming or altered states of consciousness.

From a physiological perspective, wakefulness is underpinned by various neural systems, particularly those in the brainstem, thalamus, and prefrontal cortex, which orchestrate the transition between wakefulness and sleep (Gottesmann, 1999). These systems modulate the activity of neurotransmitters like serotonin, norepinephrine, and dopamine, which play critical roles in maintaining alertness (Azizi, 2022). Neuroimaging studies have revealed that specific brain regions exhibit heightened activity during wakeful states, pointing to a neurobiological basis for wakefulness (Pace-Schott & Hobson, 2002).

However, the presence of wakefulness does not always equate to the presence of consciousness. For instance, in certain neurological conditions like the vegetative state, individuals may exhibit wakeful behaviours (e.g.,

eye-opening, sleep-wake cycles) without apparent awareness or responsiveness to the environment, challenging the traditional conflation of wakefulness with consciousness (Laureys, 2005). This distinction is crucial in the study of consciousness, as it implies that consciousness is not merely a by-product of wakefulness but a distinct phenomenon that may coexist with various states of alertness.

Moreover, the study of wakefulness intersects with exploring altered states of consciousness, such as those experienced during meditation, hypnosis, or psychoactive substances. These states can disrupt the typical patterns of wakefulness yet result in unique conscious experiences, further complicating the relationship between wakefulness and consciousness (Vaitl et al., 2005).

While wakefulness is a fundamental aspect of the human experience, its relationship with consciousness is not straightforward. The study of wakefulness, particularly in contrast and conjunction with various states of consciousness, continues to be a rich area of inquiry in understanding the complexities of the human mind. The nuanced interplay between wakeful alertness and the spectrum of conscious experiences underscores the intricate nature of consciousness and its manifestations across different physiological and psychological states.

Exploring consciousness, wakefulness, and awareness within academic discourse reveals a complex interplay and distinction between these concepts. Consciousness, in its broadest sense, refers to the subjective experience of the mind — the capacity to have thoughts, sensations, and feelings (Libel, 1993). It is a multifaceted phenomenon that encompasses both the awareness of the self and the environment and the intrinsic experiences that are not directly observable by others. The ‘hard problem’ of consciousness, particularly, underscores the challenge of explaining the qualitative aspect of these experiences.

On the other hand, wakefulness is more physiologically grounded, typically associated with being alert and responsive to external stimuli (Hobson & Friston, 2012; Loomis et al., 1937). It is often measured by observable criteria such as open eyes, motor responses, and brain activity patterns. However, wakefulness does not always imply consciousness, as seen in certain neurological conditions where wakeful behaviours are present without accompanying awareness or responsiveness (Laureys, 2005). This distinction is critical in understanding that while wakefulness is necessary for a typical conscious experience, it is insufficient to define consciousness.

Awareness, a subset of consciousness, entails recognising and perceiving internal and external stimuli (Merikle, 2001). It implies an ability to direct attention and discern and respond to different aspects of one's environment or internal state. Awareness is often the aspect of consciousness most directly accessible and measurable, particularly in clinical and experimental settings.

In conclusion, these distinctions highlight the complexity of studying consciousness and related phenomena. While wakefulness is an observable and quantifiable state, consciousness encompasses a broader range of experiences, some of which may occur independently of wakefulness. As an aspect of consciousness, awareness bridges the subjective experience of consciousness and the observable state of wakefulness. The academic pursuit in these areas continues to challenge our understanding of the human mind, pushing the boundaries of neuroscience, psychology, and philosophy in exploring the deepest aspects of human experience.

2.2. *Dreams and Consciousness: A Reflective Mirror?*

The study of consciousness, mainly through the lens of dreaming and, more specifically, lucid dreaming, presents a fascinating confluence of psychology, neuroscience, and philosophy. Consciousness, with its myriad definitions and interpretations, becomes even more complex when examined in the context of dreams—a state traditionally viewed as a passive, unconscious experience.

However, lucid dreaming, characterised by the dreamer's awareness of being in a dream and the ability to exert control within it, offers a unique intersection where the boundaries of consciousness are challenged and explored (LaBerge, 1985). Lucid dreaming represents a state of consciousness with attributes of both waking and dreaming states. The phenomenon has been a subject of scholarly interest due to its implications for our understanding of consciousness. Within the dream state, lucidity introduces a level of self-reflection and awareness typically absent in non-lucid dreams, thus providing a potent area for examining the architecture of consciousness (LaBerge, 1985).

From a psychological standpoint, lucid dreaming has been seen as a manifestation of heightened meta-cognitive abilities within the dream state. This is supported by research showing that frequent lucid dreamers tend to exhibit greater problem-solving skills, suggesting a link between lucidity in dreams and

cognitive function (Blagrove & Hartnell, 2000). Lucid dreaming allows for the examination of conscious thought processes in a controlled environment, offering insights into the self-awareness component of consciousness.

Neuroscientific studies on lucid dreaming have added a dimension of empirical evidence to the discourse on consciousness. Brain imaging studies have indicated that certain brain areas, such as the prefrontal cortex, during lucid dreams, show activity patterns akin to those during waking states, especially in regions associated with self-awareness and executive functions (Filevich et al., 2015). These findings suggest that lucid dreaming may be a hybrid state of consciousness, where the neurological underpinnings of wakefulness intersect with the dream experience.

The implications of lucid dreaming for consciousness research also extend to the philosophical realm. Lucid dreaming challenges traditional dualistic notions of mind and body, as the experience of being conscious within a dream blurs the lines between mental and physical realities. Moreover, lucid dreaming questions the perception of reality itself. If one can be 'awake' within a dream, it provokes inquiry into the nature of waking life and the trustworthiness of sensory experiences (Windt, 2013).

The study of lucid dreaming also intersects with the concept of agency in consciousness. Agency, or the sense of control over one's actions, is often associated with wakeful consciousness. In lucid dreams, however, the dreamer often gains control or agency within the dream, exhibiting a feature of waking life within a dream state (Filevich et al., 2015). This crossover has implications for understanding the volitional aspects of consciousness and how they manifest across different states of being.

Furthermore, lucid dreaming contributes to the therapeutic dimensions of dream research. The conscious awareness within a dream has been used to overcome nightmares and treat certain psychopathologies, offering a unique approach to cognitive therapy that utilises the dream state for emotional and psychological healing (Zadra & Pihl, 1997).

The concept of lucid dreaming also enriches the ongoing debate about the nature and definition of consciousness. Some theorists posit that consciousness is not a binary state but a spectrum, with lucid dreaming providing evidence of intermediate states between full consciousness and unconsciousness (Voss & Paller, 2009). Others argue that lucid dreaming is a model for studying

consciousness, providing a controlled environment to investigate the interaction between conscious awareness and the subconscious mind (Voss et al., 2018).

In summary, lucid dreaming stands as a frontier in consciousness research, offering a unique perspective on the nature of the conscious experience. It defies simple categorisation and invites a multidisciplinary approach to explore the many layers of consciousness. Lucid dreaming deepens our understanding of the human psyche and challenges our perceptions of reality, agency, and the self. As such, it remains a vibrant and essential area of study within the broader field of consciousness research, prompting new questions and avenues of exploration to understand the enigmatic nature of the conscious mind.

3. Discussion

Dreams possess an intrinsic experiential quality that frequently transcends the mere replication of daily existence; they are often vivid, laden with emotion, and imbued with a depth that questions our understanding of reality. In the dreamscape, the psyche ventures into scenarios unfettered by physical limitations or societal norms, presenting a tableau where one's fears, desires, and imaginings are given free rein (Levitan et al., 1999). Such liberation from waking constraints facilitates profound introspection and self-exploration, providing avenues that remain untraveled in the realm of wakefulness.

The therapeutic value of dreams lies in their capacity to serve as a crucible for psychological exploration and personal enlightenment (Pesant & Zadra, 2004). They offer a unique space for individuals to engage with and work through internal conflicts, emotional upheavals, and unresolved complexities of the self. Through dreaming, one can access a deeper understanding of oneself, facilitating pathways to emotional catharsis and psychological resilience.

In dreams, we often confront symbols and narratives that, while seemingly surreal, have the potential to unearth underlying truths about our psyche (Colman, 2011). The symbolist movement in psychology posits that these images and storylines are not random but are rich with meaning, reflecting the inner workings of our mental and emotional states (Colman, 2011; Jung, 2010). The analysis of these dream symbols can thus be a potent tool for psychotherapeutic intervention and self-development.

Moreover, dreams, as experiential realms, can act as a sandbox for emotional regulation. Within the safety of

the dream state, one can process and integrate emotional experiences without the immediate real-world repercussions, allowing for a rehearsal that can aid in coping strategies and emotional resilience in waking life (Cartwright, 2010). The domain of dreams offers a landscape for the psyche to navigate and engage with components of the self that may be inaccessible or dormant during wakefulness. This perspective on dreams as experiential realms underscores their potential as a powerful mechanism for personal growth and healing, inviting further inquiry into the interplay between our nocturnal narratives and our waking consciousness.

3.1. Dreams as Experiential Realms Bridging Consciousness and Unconsciousness through Lucid Dreaming

In the ambit of dream research, lucid dreaming presents an intriguing paradox, serving as a nexus between the conscious and unconscious realms. Dreams are traditionally regarded as the epitome of unconscious processes, yet lucid dreaming injects a conscious awareness into this typically automatic experience. This hybrid state challenges conventional dichotomies and offers a unique lens through which to examine the nature of human consciousness.

Lucid dreaming, a phenomenon where individuals attain awareness that they are dreaming within the dream, introduces a layer of reflexivity usually absent in typical dreaming (LaBerge, 1985). The lucid dreamer, aware of the dreamlike nature of their experience, often gains a degree of volitional control within the dream environment. This introduces an element of waking consciousness into the dream state, blurring traditional boundaries between wakefulness and sleep.

LaBerge (2014) posited that the realisation within the dream state of the fact that one is dreaming is a powerful tool for exploring the architecture of the mind. This assertion is supported by recent neuroimaging studies, which have revealed that during lucid dreams, higher-order brain regions, particularly those involved in executive functions and self-reflection, show activity patterns resembling those observed during wakefulness (Baird et al., 2019). This discovery has significant implications for our understanding of consciousness, suggesting a spectrum rather than a binary state.

Lucid dreaming's potential for therapeutic intervention is substantial (Mota-Rolim & Araujo, 2013). By becoming conscious of the dream, individuals can confront and work through psychological issues in

a controlled environment. As explained, lucid dreaming offers a 'safe' space for emotional processing, allowing individuals to actively encounter and transform dream content (Zink & Pietrowsky, 2015). This can be particularly beneficial for those suffering from nightmares or post-traumatic stress disorder, where lucid dreaming techniques provide a means to alter distressing dreams into more positive experiences (Spoormaker & van den Bout, 2006).

The study of lucid dreaming expands the scientific understanding of consciousness. Voss and Paller (2009) articulated that lucid dreaming is an empirical platform for investigating non-ordinary states of consciousness and the nature of self-awareness. Lucid dreaming disrupts the notion that consciousness is synonymous with wakefulness, introducing the concept of conscious awareness within a state traditionally defined by unconsciousness. This challenges the view that consciousness is tied exclusively to the waking state and opens discussions about the continuity of self across different states of being.

Moreover, lucid dreaming provides a bridge to what may be described as transcendental experiences. Waggoner (2008) described lucid dreams as boundary phenomena — experiences that exist on the threshold between the mundane and the spiritual. The heightened sense of reality, combined with the impossible feats often performed in lucid dreams, such as flying or meeting with entities, lends itself to interpretations that extend beyond the psychological to the spiritual. Some have proposed that lucid dreaming may offer a glimpse into other dimensions or realities, echoing the sentiments of ancient cultures which regarded dreams as portals to other worlds (Bernini, 2018).

The implications of lucid dreaming for our conceptualisations of reality and self are profound; by demonstrating that conscious awareness can be maintained and manipulated within the dream state, lucid dreaming questions the strict delineation between the real and the imagined. It suggests that the 'self' is a construct that remains consistent across various states of consciousness, capable of reflective thought whether in wakefulness, in the dreaming state, or the space in between (Kahan & LaBerge, 1994).

In conclusion, lucid dreaming represents a convergence of consciousness and unconsciousness, challenging traditional notions about the nature of the mind. The conscious awareness characteristic of lucid dreaming offers a valuable perspective for the

investigation of consciousness, providing an experiential realm in which the self can engage with the unconscious in a direct and controlled manner. This has significant implications for therapeutic practices, philosophical inquiries into the nature of reality, and our understanding of the self. Lucid dreaming enriches the study of consciousness and invites a re-evaluation of what constitutes reality, offering a promising avenue for future research and contemplation (Gackenbach & Kuruville, 2013).

3.2. *Dreams as Portals to Alternate Realities*

Dreams have perennially been a source of fascination and mystery within scientific inquiry and philosophical speculation. The conceptualisation of dreams as potential portals to alternate realities extends the intrigue surrounding these nightly occurrences. This conceptualisation postulates that, within the nebulous boundaries of the dream state, the human mind may traverse beyond the physical limitations of the waking world, venturing into realms that defy empirical constraints (Blechner, 2013).

Dreams, in their most enigmatic form, present a canvas upon which the mind's inner theatre unfolds, creating narratives that often defy the laws of physics and logic that govern waking life. They possess an immersive quality where sensory perceptions can be as acute and visceral as those experienced in reality. Dreamers can taste sweetness, feel the rush of wind, and hear the echo of imagined voices, constructing experiences that are often indistinguishable from reality in their immediacy (Grotstein, 2013). This phenomenological richness of dreams suggests that they are more than mere by-products of sleep but are experiential realms in their own right.

Drawing upon theoretical physics, particularly the multiverse theory, dreams as portals to alternate realities find an intriguing parallel. The multiverse theory, advocated by physicists such as Michio Kaku, posits the existence of multiple, perhaps infinite, universes that coexist alongside our own (Kaku, 1995). Although this remains within the purview of theoretical physics, the thematic resonance with the diverse nature of dreams is striking. Dreams often present worlds with their own rules and narratives, much like the distinct universes proposed by the multiverse theory. This has led some to theorise that the dream state might be a space where consciousness, unfettered by the body, experiences these other universes (Levitan et al., 1999).

Psychologically, dreams have been analysed as the subconscious mind's playground, where suppressed

wishes, unfulfilled desires, and unresolved conflicts manifest (Freud, 1925). However, when dreams are considered potential portals, the subconscious is a reflective pool of the inner self and a perceptive organ capable of sensing beyond the immediate sensory world. This perspective aligns with Jung's notion of the collective unconscious, which implies a shared repository of human experiences and archetypes, potentially extending to other realities (Jung, 1936).

The vivid experiences within dreams, which can be suffused with emotional intensity, have led to the proposition that dreams simulate alternate realities. Just as simulators can replicate flying a plane with remarkable authenticity, so too might dreams simulate realities that are not physically present yet are perceptually real. This hypothesis is supported by research into the brain's default mode network, which remains active during dreaming and is associated with constructing simulations and narratives (Domhoff & Schneider, 2018).

The metaphysical implications of dreams as portals are profound. If dreams are experiences of non-ordinary states of consciousness, they might provide a perspective on the mind that transcends empirical psychology. Dreams could be considered a tool for exploring the psyche in its totality, revealing dimensions of the self that lie dormant in waking consciousness. This holistic view of the psyche resonates with transpersonal psychology, which investigates the spiritual aspects of the human experience (Grof, 1973). The theory that dreams may be portals to alternate realities challenges the traditional view that consciousness is confined within the physical brain. Instead, it suggests that consciousness may be a non-local phenomenon, capable of reaching into other dimensions or realities during the dream state (Neppe & Close, 2015). This leads to a re-conceptualisation of consciousness as a more expansive and interconnected entity with the potential to navigate a multiverse of experiences.

Lucid dreaming further substantiates the theory of dreams as alternate realities. When dreamers become aware that they are dreaming and can exert control over the dream environment, they effectively demonstrate a heightened state of consciousness within the dream (LaBerge, 2014). This conscious awareness within the dream state serves as an experimental ground for examining the nature of reality and the potential for consciousness to transcend its ordinary boundaries.

The possibility that dreams could be portals to alternate realities invites reconsideration of our

understanding of reality. If the self can experience such diverse and profound realities within dreams, what does this imply about the nature of the self and its relation to the world? Dreams challenge the perception of a singular, unified reality, suggesting instead a plurality of worlds, each experienced subjectively by the self.

In conclusion, the theorisation of dreams as portals to alternate realities represents a frontier in our understanding of consciousness. It blurs the boundaries between the physical and the metaphysical, the subjective and the objective, and challenges the very fabric of reality. As such, dreams continue to be a source of profound intellectual curiosity and philosophical debate, inviting us to explore the boundless potential of the human mind. This exploration, while speculative, ignites the imagination and encourages a deeper inquiry into the nature of our existence and the cosmos.

3.3. *The Multiverse Theory and Dreams*

In the discourse on dreams as potential portals to alternate realities, the conversation intertwines intriguingly with the hypotheses of modern physics, particularly the multiverse theory. This theory postulates the existence of multiple, possibly infinite, universes that coexist alongside our observable universe. Each universe within this multiverse framework may have different laws of physics and unique configurations of space and time (Kaku, 1995).

The multiverse theory, a subject of theoretical physics and cosmology, extends the boundaries of reality beyond the singular universe to an almost inconceivable array of parallel worlds (Mensky, 2010). This notion radically shifts the perception of our universe from a solitary existence to one of countless others, each with its distinct narrative. In dreams, this concept parallels the multifaceted and boundless nature of the dream worlds that individuals navigate nightly.

Dreams as experiential realms offer a phenomenological richness akin to what might be expected of encounters with alternate universes. Within dreams, the ordinary constraints of time and space do not hold; dreamers can experience scenarios that would be impossible within the limits of known physical laws (Hartocollis, 1980). The vividness and emotional intensity of these experiences can sometimes be so profound that the dream reality can feel as authentic as the waking world.

The multiverse theory and the experience of dreams share the concept of realities beyond our immediate

perception. These theoretical constructs arise from complex mathematical models and quantum mechanics principles in physics. In dreams, these are subjective experiences that arise from the unconscious mind's ability to create worlds unbound by waking life constraints.

The similarities lie in the foundational idea that what we perceive as reality might be one possibility within a vast spectrum of realities. Dreams mimic the multiverse concept by presenting alternative scenarios and outcomes, reflecting the same uncertainty and multiplicity that the multiverse theory suggests.

Despite these similarities, there are apparent differences between the multiverse theory and the experience of dreams. The multiverse theory is rooted in scientific conjecture supported by mathematical equations and quantum theory (Bousso & Susskind, 2012), while dreams are subjective experiences that cannot be measured or quantified similarly (Thomas et al., 2015). Dreams are a product of individual consciousness, shaped by personal memories, emotions, and subconscious thoughts, whereas the multiverse is a hypothetical objective reality that exists independently of human perception.

The multiverse theory implies a physical reality that is, in principle, accessible mathematically, albeit beyond current empirical testing capabilities. In contrast, dreams as alternate realities are accessible only through the subjective experience of the dreamer and are not physically traversable spaces. Dreams are ephemeral and often forgotten upon waking, whereas alternate universes within the multiverse are proposed to be as concrete and enduring as our universe.

The dialogue between the multiverse theory and dreams as portals to alternate realities is a testament to the interdisciplinary nature of modern scholarship. While physics offers a framework for understanding the possible structure of reality, the study of dreams provides insight into the human experience of that reality. Exploring dreams as alternate realities encourages a philosophical reflection on the nature of existence and the consciousness that perceives it.

In conclusion, dreams as portals to alternate realities and the multiverse theory challenge our conventional understanding of reality. They inspire us to consider the existence of other worlds that are beyond our current comprehension and perception. The academic discourse on this topic is enriched by the contributions of theoretical physics, psychology, and philosophy, each providing valuable perspectives on the nature of reality and the human capacity to conceive and experience it. While grounded in different

methodologies and epistemologies, these discussions converge on the central question of what reality truly encompasses, inviting us to consider the limitless possibilities of existence.

3.4. *Implications for the Study of the Psyche*

The proposition that dreams might serve as portals to alternate realities has profound implications for studying the psyche. If we entertain the idea that dreams are not merely internal narratives but experiences of other realities, this fundamentally alters our conception of the mind and its capabilities. Such a paradigm shift moves us beyond the classical Freudian interpretation of dreams as wish-fulfilling fantasies or Jungian archetypal symbolism into a domain where the psyche is an instrument of trans-dimensional experience.

In considering dreams as experiential realms, we embrace a perspective where the psyche transcends its psychological boundaries, challenging the traditional dichotomy between the conscious and the unconscious. In this context, dreams are not confined to replaying or reworking waking life experiences, but instead, they become exploratory ventures into the vastness of the self, which is no longer seen as bounded by individual consciousness but as part of a more expansive, interconnected consciousness.

Jung's (1936) concept of the collective unconscious posits that elements of the psyche are shared across humanity, possibly extending beyond the individual. The theory of dreams as portals complements this view, suggesting that these shared elements might include access to collective experiential realms or alternate dimensions. Thus, dreams could be the psyche's means of tapping into this collective unconscious, exploring and experiencing the shared human narrative that extends beyond the personal.

The therapeutic potential of dreams as realms of experimentation and self-discovery is significant. They can offer a space where individuals confront and engage with aspects of the self that may be inaccessible or repressed in waking life. This could have profound implications for psychotherapeutic practices, where dreams are not just seen as reflections of inner conflicts, but as experiences that can lead to growth, healing, and transformation.

The experience of dreaming, particularly lucid dreaming, brings into question the continuity of the self across different states of consciousness. Maintaining a sense of self within the dream state suggests a continuous thread of identity that runs through waking and dreaming experiences. The study

of lucid dreaming, therefore, not only enriches our understanding of the dreaming mind but also offers insights into the nature of self-awareness and self-identity.

Dreams as portals to alternate realities raise ontological questions about the nature of existence itself. If the psyche can experience other realities, what does this imply about the nature of those realities? Are they purely subjective experiences created by the mind, or do they have an independent existence that the psyche can access? These questions push the boundaries of psychology into the realms of philosophy and metaphysics, expanding the scope of what is considered the domain of the psyche.

While the theoretical implications are compelling, they also present empirical challenges. How can we study or verify the experience of alternate realities? The subjective nature of dreams makes them difficult to examine with objective scientific methods. However, advances in neuroimaging and the study of altered states of consciousness are beginning to shed light on the neural correlates of dreaming, which may provide a pathway for exploring these questions further (Owen, 2013).

In summary, the theory of dreams as portals to alternate realities offers a radical new perspective on studying the psyche. It encourages a departure from seeing dreams solely as internal psychological processes and opens up the possibility that they are experiences of other dimensions of consciousness. This perspective invites a re-evaluation of the human mind's capabilities and the nature of reality, suggesting that the psyche is not just a passive recipient of experiences but an active explorer of a much broader, possibly infinite, cosmos.

3.5. *Contribution to Theory and Practice*

When juxtaposed with the multiverse theory, the contemplation of dreams as gateways to alternate realities extends the traditional boundaries of self and reality. This section seeks to unravel the implications of such a conceptual framework for our understanding of the nature of reality and the self, exploring these ideas' contributions to theory and practice.

The consideration of dreams as experiential realms akin to alternate universes challenges the conventional understanding of reality as a fixed, uniform space. If our dreams can be seen as more than figments of the imagination—if they indeed hold the key to alternate realities—then our very conception of what is real is up for re-evaluation. The multiverse theory contributes to this discussion by providing a scientific grounding for

such alternate realities despite the current lack of empirical evidence to navigate these dimensions physically (Kaku, 1995).

Theoretically, this perspective suggests that reality is not a monolithic construct but a mosaic of potential universes, each with its own physical laws and experiential possibilities. It implies that our waking life is just one of many versions of reality that we might access. Within this framework, dreams become a natural extension of the self's experiential repertoire, providing a subjective experience of other possible realities.

On an ontological level, the self-concept is expanded through the lens of dreams and alternate realities. Traditionally, the self is perceived as a continuous, singular identity rooted in an individual's experiences and memories. However, if dreams are indeed portals to alternate dimensions, the self must be understood as a more fluid, dynamic construct, capable of experiencing multiple realities and multiple 'selves' across different universes.

The theory that dreams might offer access to a multiverse of experiences implies that the self is not merely experiencing different scenarios but is actively engaging with other versions of reality, each with its distinct narrative and emotional landscape. This has implications for understanding identity, suggesting that the self is not fixed but adaptable, evolving with each new experiential context it encounters.

From a psychological perspective, the idea of dreams as alternate realities contributes to a more comprehensive understanding of the human psyche. It opens up new avenues for exploring consciousness, personal identity, and the mechanics of perception. Psychologists and researchers could explore dreams as case studies of how individuals construct reality, offering insights into the cognitive processes behind perception and experience.

This perspective on dreams also aligns with Jungian thought, which posits that the collective unconscious is expressed through archetypes and shared human narratives. Within this theory, dreams are personal experiences and expressions of a collective human story, potentially experienced across multiple realities (Jung, 1974).

Viewing dreams as experiences of alternate realities in psychotherapy could inform new therapeutic techniques. For individuals dealing with trauma, anxiety, or other psychological challenges, dreams could be used as a space to explore and confront personal issues safely. Therapists could guide clients through their dream experiences, helping them to

process emotions and work through conflicts in a controlled, alternate reality setting.

The theory of dreams as portals to alternate realities presents new methodological challenges and opportunities for dream research. Researchers could develop new ways to study dreams that account for their potential to be more than subconscious processing. This might include longitudinal dream journal studies, analyses of recurring dream themes, and the study of lucid dreaming as a bridge between conscious intention and unconscious exploration.

The implications of considering dreams as portals to alternate realities are profound and far-reaching. This perspective enriches the theoretical discourse on the nature of reality and the self, challenging the view of a singular, objective universe and a stable, unified identity. It also opens up new practical avenues for psychological healing and self-discovery, allowing for the exploration of the self across multiple dimensions of experience. This exploration not only broadens the horizons of psychological theory and practice, but also invites us to reimagine the boundaries of what we consider possible, both in the landscapes of our minds and the fabric of the cosmos.

4. Conclusion

The exploration of dreams as conduits to alternate realities culminates in a profound re-evaluation of the dimensions of human experience and the fabric of existence itself. The notion that dreams might serve as gateways to other worlds or dimensions transcends conventional wisdom about the limits of reality and identity. Such a perspective deepens our theoretical understanding of the cosmos and the psyche and bears tangible implications for personal growth and psychological practice.

This expanded view of dreams challenges entrenched notions of a single, objective universe. If dreams indeed offer access to a spectrum of realities, then our waking life is merely one expression of a much vaster multiverse—an idea that resonates with both ancient mythological narratives and cutting-edge scientific theories. In this context, the self is not a static entity but a dynamic and multifaceted phenomenon, capable of navigating and experiencing a multitude of realities, each with its own rules and narratives.

The implications of this for psychological theory are significant. By embracing the possibility of dreams as experiential realms beyond our waking consciousness, we invite a richer, more nuanced understanding of the psyche. Dreams become a platform for reflecting

personal unconscious content and the interplay with the collective unconscious. This concept posits a shared repository of human experiences and archetypes.

In practical terms, considering dreams as portals to alternate realities provides a novel approach to psychotherapy. It suggests that within the dream state, individuals can live alternate versions of their lives; however, briefly, to engage with different aspects of their identity and to work through challenges in a space unencumbered by the physical constraints of reality. Dreams, in this sense, can be seen as visualisations that offer a reprieve from daily life and a potential for therapeutic insight and emotional catharsis.

Furthermore, this perspective offers a fresh lens to understand the connection between various states of consciousness. Dreams may serve as a bridge between wakefulness and other states, melding awareness and unconscious processes and allowing us to consider that our experience of reality in the waking state is just one of many possible ways of existing.

As we delve into the study of dreams and their potential to reveal alternate realities, we must also consider the methodological challenges they present. Dreams are inherently subjective and ephemeral, often slipping from memory upon waking. However, the persistence of dream research and the burgeoning field of lucid dreaming studies suggest that it is possible to harness these experiences to understand consciousness better.

In synthesising these insights, we see that dreams as portals to alternate realities offer a compelling new direction for future research. They beckon us to contemplate the vastness of our inner lives and the possibilities of our existence in the cosmos. This inquiry stands at the intersection of psychology, philosophy, and physics, representing a holistic approach to understanding the mysteries of the human condition. Through this scholarly endeavour, we gain a deeper appreciation for the complexities of the mind and a greater sense of the boundless potential that resides within each of us, waiting to be uncovered in the depths of our dreams.

Statements and Declarations

Conflicts of Interest

The authors declare that they have no conflicts of interest in this work.

References

- Azizi, S. A. (2022). Monoamines: Dopamine, Norepinephrine, and Serotonin, Beyond Modulation, “Switches” That Alter the State of Target Networks. *The Neuroscientist*, 28(2), 121–143. <https://doi.org/10.1177/1073858420974336>
- Baird, B., Mota-Rolim, S. A., & Dresler, M. (2019). The cognitive neuroscience of lucid dreaming. *Neuroscience & Biobehavioral Reviews*, 100, 305–323. <https://doi.org/10.1016/j.neubiorev.2019.03.008>
- Baylor, G. W., & Deslauriers, D. (1986). Dreams as Problem Solving: A Method of Study — Part I: Background and Theory. *Imagination, Cognition and Personality*, 6(2), 105–118. <https://doi.org/10.2190/T906-E1N8-R5Y9-U7PF>
- Beckermann, A., Flohr, H., & Kim, J. (2011). *Emergence or reduction?: Essays on the prospects of nonreductive physicalism*. Walter de Gruyter.
- Bernini, M. (2018). Affording innerescapes: Dreams, introspective imagery and the narrative exploration of personal geographies. *Frontiers of Narrative Studies*, 4(2), 291–311. <https://doi.org/10.1515/fns-2018-0024>
- Blagrove, M., & Hartnell, S. J. (2000). Lucid dreaming: associations with internal locus of control, need for cognition and creativity. *Personality and Individual Differences*, 28(1), 41–47. [https://doi.org/10.1016/S0191-8869\(99\)00078-1](https://doi.org/10.1016/S0191-8869(99)00078-1)
- Blechner, M. (2013). *The dream frontier*. Routledge.
- Bouso, R., & Susskind, L. (2012). Multiverse interpretation of quantum mechanics. *Physical Review D*, 85(4), 045007. <https://doi.org/10.1103/PhysRevD.85.045007>
- Cartwright, R. D. (2010). *The twenty-four hour mind: The role of sleep and dreaming in our emotional lives*. Oxford University Press.
- Chalmers, D. (2015). Panpsychism and panprotopsyism. In *Consciousness in the physical world: Perspectives on Russellian monism* (pp. 102–154).
- Chalmers, D. J. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2(3), 200–219.
- Colman, W. (2011). Synchronicity and the meaning-making psyche. *Journal of Analytical Psychology*, 56(4), 471–491. <https://doi.org/10.1111/j.1468-5922.2011.01924.x>
- Davis, J. (2003). An overview of transpersonal psychology. *The Humanistic Psychologist*, 31(2–3), 6–21. <https://doi.org/10.1080/08873267.2003.9986924>

- Dennett, D. C. (2006). *Sweet dreams: Philosophical obstacles to a science of consciousness*. MIT press.
- Domhoff, G. W., & Schneider, A. (2018). Are dreams social simulations? Or are they enactments of conceptions and personal concerns? An empirical and theoretical comparison of two dream theories. *Dreaming*, 28(1), 1–23. <https://doi.org/10.1037/drm0000080>
- Fein, S. (2019). Other Thought-Worlds. In *A New Companion to Chaucer* (pp. 283–296). Wiley. <https://doi.org/10.1002/9781118902226.ch19>
- Filevich, E., Dresler, M., Brick, T. R., & Kühn, S. (2015). Metacognitive Mechanisms Underlying Lucid Dreaming. *The Journal of Neuroscience*, 35(3), 1082–1088. <https://doi.org/10.1523/JNEUROSCI.3342-14.2015>
- Foss, J. E. (1995). Materialism, Reduction, Replacement, and the Place of Consciousness in Science. *Journal of Philosophy*, 92(8), 401–429. <https://doi.org/10.2307/2940818>
- FOULKES, D. (1993). Dreaming and REM sleep. *Journal of Sleep Research*, 2(4), 199–202. <https://doi.org/10.1111/j.1365-2869.1993.tb00090.x>
- Freud, S. (2021). Dreams are the guardians of sleep, and not its disturbers. In *Reality of Dreams: Post-Neoliberal Utopias in the Ecuadorian* (p. 48). Amazon.
- Freud, Sigmund. (1925). The origin and development of psychoanalysis. In *An outline of psychoanalysis*. (pp. 21–70). Modern Library. <https://doi.org/10.1037/11350-001>
- Frey-Rohn, L. (2001). *From Freud to Jung: A comparative study of the psychology of the unconscious (Vol. 5)*. Shambhala Publications.
- Gackenbach, J., & Kuruville, B. (2013). Cognitive structure associated with the lucid features of gamers dreams. *Dreaming*, 23(4), 256–265. <https://doi.org/10.1037/a0034817>
- Gamwell, L. (2000). *Dreams 1900–2000: Science, art, and the unconscious mind*. Cornell University Press.
- Glattfelder, J. B. (2019). *The Consciousness of Reality* (pp. 515–595). https://doi.org/10.1007/978-3-030-03633-1_14.
- Gottesmann, C. (1999). Neurophysiological support of consciousness during waking and sleep. *Progress in Neurobiology*, 59(5), 469–508. [https://doi.org/10.1016/S0301-0082\(99\)00014-3](https://doi.org/10.1016/S0301-0082(99)00014-3)
- Grof, S. (1973). Theoretical and empirical basis of transpersonal psychology and psychotherapy: Observations from LSD research. *Journal of Transpersonal Psychology*, 5(1), 15–53.
- Grotstein, J. S. (2013). *Who is the dreamer, who dreams the dream?: A study of psychic presences*. Routledge.
- Grotstein, James S. (1979). Who is the Dreamer Who Dreams the Dream and Who is the Dreamer Who Understands It. *Contemporary Psychoanalysis*, 15(1), 110–169. <https://doi.org/10.1080/00107530.1979.10745573>
- Hartocollis, P. (1980). Time and the Dream. *Journal of the American Psychoanalytic Association*, 28(4), 861–877. <https://doi.org/10.1177/000306518002800405>
- Hobson, J. Allan, & Pace-Schott, E. F. (2002). The cognitive neuroscience of sleep: neuronal systems, consciousness and learning. *Nature Reviews Neuroscience*, 3(9), 679–693. <https://doi.org/10.1038/nrn915>
- Hobson, J.A., & Friston, K. J. (2012). Waking and dreaming consciousness: Neurobiological and functional considerations. *Progress in Neurobiology*, 98(1), 82–98. <https://doi.org/10.1016/j.pneurobio.2012.05.003>
- HOFFMAN, P. (2002). Descartes’s Theory of Distinction. *Philosophy and Phenomenological Research*, 64(1), 57–78. <https://doi.org/10.1111/j.1933-1592.2002.tb00142.x>
- HORI, T., OGAWA, K., ABE, T., & NITTONO, H. (2008). Brain potentials related to rapid eye movements and dreaming during REM sleep: A short review of psychophysiological correlates. *Sleep and Biological Rhythms*, 6(3), 128–138. <https://doi.org/10.1111/j.1479-8425.2008.00358.x>
- Husser, J. M. (1999). Dreams and dream narratives in the Biblical world. *Dreams and Dream Narratives in the Biblical World*, 1–198.
- Jung, C. G. (1936). The concept of the collective unconscious. *Collected Works*, 9(1), 42.
- Jung, C. G. (2010). *Synchronicity: An acausal connecting principle. (From Vol. 8. of the collected works of CG Jung)(New in Paper) (Vol. 30)*. Princeton University Press.
- Kahan, T. L., & LaBerge, S. (1994). Lucid Dreaming as Metacognition: Implications for Cognitive Science. *Consciousness and Cognition*, 3(2), 246–264. <https://doi.org/10.1006/ccog.1994.1014>
- Kaku, M. (1995). *Hyperspace: A scientific odyssey through parallel universes, time warps, and the tenth dimension*. OUP Oxford.
- Kleitman, N. (1957). Sleep, wakefulness, and consciousness. *Psychological Bulletin*, 54(4), 354–359. <https://doi.org/10.1037/h0045813>
- LaBerge, S. (1985). *Lucid dreaming*. ReadHowYouWant.com.
- LaBerge, Stephen. (2014). Lucid dreaming: Paradoxes of dreaming consciousness. In *Varieties of anomalous experience: Examining the scientific evidence (2nd ed.)*. (pp. 145–173). American

- Psychological Association.
<https://doi.org/10.1037/14258-006>
- Laureys, S. (2005). The neural correlate of (un) awareness: lessons from the vegetative state. *Trends in Cognitive Sciences*, 9(12), 556–559.
 - Levitan, L., LaBerge, S. J., D., D., & Zimbardo, P. G. (1999). Out-of-body experiences, dreams, and REM sleep. *Sleep and Hypnosis*, 1(3), 186–196.
 - Libel, B. (1993). Consciousness: Conscious, Subjective Experience. In *Neurophysiology of Consciousness* (pp. 314–318). Birkhäuser Boston. https://doi.org/10.1007/978-1-4612-0355-1_18
 - Loomis, A. L., Harvey, E. N., & Hobart, G. A. (1937). Cerebral states during sleep, as studied by human brain potentials. *Journal of Experimental Psychology*, 21(2), 127–144. <https://doi.org/10.1037/h0057431>
 - Lusty, N., & Groth, H. (2013). *Dreams and modernity: a cultural history*. Routledge.
 - Mensky, M. B. (2010). *Consciousness and Quantum Mechanics: Life in Parallel Worlds—Miracles of Consciousness from Quantum Reality*. World Scientific.
 - Merikle, P. (2001). Perception without awareness: perspectives from cognitive psychology. *Cognition*, 79(1–2), 115–134. [https://doi.org/10.1016/S0010-0277\(00\)00126-8](https://doi.org/10.1016/S0010-0277(00)00126-8)
 - Mota-Rolim, S. A., & Araujo, J. F. (2013). Neurobiology and clinical implications of lucid dreaming. *Medical Hypotheses*, 81(5), 751–756. <https://doi.org/10.1016/j.mehy.2013.04.049>
 - Neppe, V. M., & Close, E. R. (2015). The Concept of Relative Non-Locality: Theoretical Implications in Consciousness Research. *EXPLORE*, 11(2), 102–108. <https://doi.org/10.1016/j.explore.2014.12.007>
 - Owen, A. M. (2013). Detecting Consciousness: A Unique Role for Neuroimaging. *Annual Review of Psychology*, 64(1), 109–133. <https://doi.org/10.1146/annurev-psych-113011-143729>
 - Pace-Schott, E. F., & Hobson, J. A. (2002). The Neurobiology of Sleep: Genetics, cellular physiology and subcortical networks. *Nature Reviews Neuroscience*, 3(8), 591–605. <https://doi.org/10.1038/nrn895>
 - Pesant, N., & Zadra, A. (2004). Working with dreams in therapy: What do we know and what should we do? *Clinical Psychology Review*, 24(5), 489–512. <https://doi.org/10.1016/j.cpr.2004.05.002>
 - Piaget, J. (1976). Piaget's Theory. In *Piaget and His School* (pp. 11–23). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-46323-5_2
 - Renberg, G. H. (2017). Dream Interpreters and Incubation at Egyptian Sanctuaries. In *Where Dreams May Come* (2 vol. set) (pp. 717–734). BRILL. https://doi.org/10.1163/9789004330238_024
 - Shamdasani, S. (2003). *Jung and the making of modern psychology: The dream of a science*. Cambridge University Press.
 - Spoomaker, V. I., & van den Bout, J. (2006). Lucid Dreaming Treatment for Nightmares: A Pilot Study. *Psychotherapy and Psychosomatics*, 75(6), 389–394. <https://doi.org/10.1159/000095446>
 - Thomas, S., Pollak, M., & Kahan, T. L. (2015). Subjective qualities of dreams with and without awareness. *Dreaming*, 25(3), 173–189. <https://doi.org/10.1037/a0039242>
 - Ustinova, Y. (2009). Cave Experiences and Ancient Greek Oracles. *Time and Mind*, 2(3), 265–286. <https://doi.org/10.2752/175169609X12464529903092>
 - Vaitl, D., Birbaumer, N., Gruzelić, J., Jamieson, G. A., Kotchoubey, B., Kübler, A., Lehmann, D., Miltner, W. H. R., Ott, U., Pütz, P., Sammer, G., Strauch, I., Strehl, U., Wackermann, J., & Weiss, T. (2005). Psychobiology of Altered States of Consciousness. *Psychological Bulletin*, 131(1), 98–127. <https://doi.org/10.1037/0033-2909.131.1.98>
 - Velmans, M. (1990). Consciousness, brain and the physical world. *Philosophical Psychology*, 3(1), 77–99. <https://doi.org/10.1080/09515089008572990>
 - Voss, J. L., & Paller, K. A. (2009). An electrophysiological signature of unconscious recognition memory. *Nature Neuroscience*, 12(3), 349–355. <https://doi.org/10.1038/nn.2260>
 - Voss, U., D'Agostino, A., Kolibius, L., Klimke, A., Scarone, S., & Hobson, J. A. (2018). Insight and Dissociation in Lucid Dreaming and Psychosis. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02164>
 - Waggoner, R. (2008). *Lucid dreaming: Gateway to the inner self*. Red Wheel/Weiser.
 - Windt, J. M. (2013). Reporting dream experience: Why (not) to be skeptical about dream reports. *Frontiers in Human Neuroscience*, 7. <https://doi.org/10.3389/fnhum.2013.00708>
 - Zadra, A. L., & Pihl, R. O. (1997). Lucid Dreaming as a Treatment for Recurrent Nightmares. *Psychotherapy and Psychosomatics*, 66(1), 50–55. <https://doi.org/10.1159/000289106>
 - Zink, N., & Pietrowsky, R. (2015). Theories of dreaming and lucid dreaming: An integrative review towards sleep, dreaming and consciousness. *International Journal of Dream Research*, 35–53.

Declarations

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.