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## Editorial

# Salvador Dalí: Hypnagogic Hallucinations in Art



*Dream Caused by the Flight of a Bee Around a Pomegranate One Minute Before Awakening*, 1944, Salvador Dalí. © 2022 Salvador Dalí, Fundació Gala-Salvador Dalí, Artists Rights Society. Credit for the journal cover image and the image above: Museo Nacional Thyssen-Bornemisza / Scala / Art Resource, NY

Salvador Dalí, one of the preeminent artists of the Surrealist movement, used two instruments to capture the contents of his subconscious: a paintbrush and a key. A disciple of Sigmund Freud, Dalí was well-versed in psychoanalytic theory. Internalizing Freud's assertion that dreams serve as coded messages from the unconscious, Dalí made dreamscapes the focal point of his work. In order to unlock this source of subconscious revelation, he devised a method to induce a dream-like state; he'd sit in a chair, holding a large key<sup>1</sup> folded across his chest, above a metal bowl that rested on his lap. When he

fell asleep, his grip would loosen and the key would fall, creating a loud noise upon hitting the bowl, thereby waking him up. Dalí would repeat this process, basking in the liminal space between sleep and consciousness. He'd observe the increasingly bizarre hallucinations which bombarded him before he fully regained consciousness, suppressing rationality and elevating his subconscious to the most accessible tier of his attention. He'd then materialize his otherworldly visions into his art.<sup>1</sup> Thus, Dalí harnessed sleep to awaken his creativity; the whimsical and often disturbing nature of his art arose from the hypnagogic hallucinations he induced. While countless critics have analyzed Dalí's work from an artistic lens, the science of hypnagogia can provide novel insight into the inspiration behind the motifs depicted in his oeuvre. Dalí's work illuminates the connection between Dalí's imagery and the phenomenon commonly observed while in a hypnagogic state.

Hypnagogia constitutes the transitional state of consciousness between wakefulness and sleep. The state of hypnagogia manifests in a distorted perception of space and time, fluid idea association, and involuntary, imagined sensory stimulation, known as "hypnagogic hallucinations." Subjectively, the state of hypnagogia is characterized by a person's sense of reality transitioning from the physical world to a distorted dream world. Accompanying this state, about 70% of people experience hallucinations, lucid dreaming, body jerks, or sleep paralysis. A glimpse into Dalí's work reveals many of the common hallucinations experienced during hypnagogic states.

About 86% of the time, hypnagogic hallucinations involve visual stimuli.<sup>2</sup> Some of the ways visual hallucinations can manifest include perceptions of geometric patterns, kaleidoscopic colors and lights, images of faces and animals, such as bugs crawling all over your body. Indeed, all these common hypnagogic hallucinations are prominently reflected in Dalí's body of work. Dalí was known for playing with color and light, creating optical illusions on the canvas that emulated the confused reality one might experience in a hypnagogic state. His work also often featured distorted faces, such as the drooping face in *Le Sommeil*, or the melting face in his seminal painting, *The Persistence of Memory*. Moreover, this latter piece displays a pocket watch crawling with a colony of ants – yet another prominent motif of Dalí's iconography that likely owes its origin to the hypnagogic hallucination of being enveloped by bugs.

Evidence of auditory hypnagogic hallucination also rings through Dalí's works. During hypnagogia, even though people aren't entirely conscious, they can still hear real-life sounds that become incorporated into the hallucination. About 8 to 34% of hypnagogic hallucinations involve sounds.<sup>2</sup> Unsurprisingly, given Dalí's hypnagogic source of inspiration, auditory stimulation

experienced on the cusp of sleep spilled into his art. In 1944, Dalí painted the famed oil portrait entitled *Dream Caused by the Flight of a Bee Around a Pomegranate One Minute Before Awakening*. The painting depicts his wife and muse, Gala, nude and reclined in a position of slumber. In this portrait, the sleeping Gala transposes the sound of a buzzing bee into her dreamscape. Her reveries float on the canvas above her: a giant fish emerges from the pomegranate, and two ferocious tigers leap from the fish's mouth, along with a bayonet, the tip a mere moment away from stinging Gala's unsuspecting arm. The phallic quality of the bayonet also serves as one example of how Dalí incorporated elements of Freud's psychoanalytic theories in his pictorial narrative. Reflected in his painting, we see the hallucinogenic powers of hypnagogia at work: the reality of a buzzing bee, when perceived and distorted in the state of hypnagogia, gives rise to an epic hallucination, which crystallizes onto the canvas.

The sensations of falling or weightlessness are also commonly associated with hypnagogia. Indeed, Dalí captures the feeling of weightlessness through his depiction of the gargantuan elephant body suspended on delicate, spindly legs—features that combine to create a contradictory image of force and fragility. Nevertheless, Dalí's original inspiration clearly derived from textbook examples of visual and auditory hypnagogic hallucinations.

Though Dalí introduced what he called the “paranoiac-critical method” to the Surrealist movement, he was not the first to capitalize on hypnagogia. Historically, many of the world's visionaries utilized hypnagogia to unlock their creativity, such as Edgar Allan Poe and Franz Kafka, who often channeled hypnagogic hallucinations into their horrific visions and absurdist writing, respectively. Beethoven, Isaac Newton, and Thomas Edison also strategically entered the hypnagogic state when they needed to solve a problem and spark “out-of-the-box” thinking.<sup>3</sup>

More recently, researchers at the MIT Media Lab have developed a technological device, Dormio, aimed at capitalizing on hypnagogia to augment human creativity.<sup>4</sup> Harnessing the capacity to hear real-time sounds when in a semi-conscious hypnagogic state, Dormio identifies when people are in hypnagogia and provides audio stimuli to inhibit them from entering a deeper sleep stage. Consequently, the researchers were able to “influence, extract information from, and extend hypnagogic microdreams for the first time,” enhancing human creativity in multiple measurable ways.

The Surrealist movement aimed to unlock the liberating and creative potential of the unconscious, and Dalí produced some of the world's most influential work during this period. Freud famously claimed that dreams are the “royal road” to the unconscious. For Dalí, entering a state of hypnagogia was the key to unlocking the potential of one's unconscious.

## Additional Readings

Carr, Michelle. “How to Dream like Salvador Dalí .” *Psychology Today*, 20 Feb. 2015, <https://www.psychologytoday.com/us/blog/dream-factory/201502/how-dream-salvador-Dalí>.

Dalí, Salvador. “Dream Caused by the Flight of a Bee around a Pomegranate a Second before Waking.” *Museo Nacional Thyssen-Bornemisza*, 1 Jan. 1970, <https://www.museothyssen.org/en/collection/artists/Dalí-salvador/dream-caused-flight-bee-around-pomegranate-second-waking>.

Trembath, Alec. “Salvatore Dalí: How to Capture Creativity with a Spoon.” *The Mattress Nerd*, 3 Jan. 2022,

<https://www.mattressnerd.com/polyphasic-sleep/salvatore-Dalí-capture-creativity-spoon/>.

Yetman, Daniel. “Hypnagogia: How the State between Wakefulness and Sleep Works.”

*Healthline*, Healthline Media, 26 Oct. 2020, <https://www.healthline.com/health/hypnagogia>.

## Declaration of conflict of interest

The authors have no conflicts of interests to declare.

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## References

1. Dalí Salvador. *50 Secrets of Magic Craftsmanship*. Courier Corporation; 1992.
2. Waters Flavie, et al. What is the link between hallucinations, dreams, and hypnagogic-hypnopompic experiences? *Schizophrenia Bulletin*. Oxford University Press; Sept. 2016. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4988750/>.
3. Krippner, S. Hypnagogia. hypnagogia - an overview, sciencedirect topics, <https://www.sciencedirect.com/topics/medicine-and-dentistry/hypnagogia>.
4. Media Lab, MIT. project overview dormio: interfacing with dreams. *MIT Media Lab*, <https://www.media.mit.edu/projects/sleep-creativity/overview/>.