Why Do We Have the Dreams that We Do? [C1]

Un tempo considerati come messaggi provenienti dalle divinità, i sogni sono oggigiorno materia di spiegazione scientifica.

When my husband brought me a cup of tea in bed the other morning, I could barely **muster** a "Thank you". I was furious that he'd spent the night **blatantly cavorting** with another woman (a friend of ours, no less.) **Never mind** that it only happened in a dream. The emotions — **betrayal**, outrage, rejection — felt real. My next words —"I had a dream last night" echoed what Oscar Wilde is said to have <u>deemed</u> the most frightening sentence in the English language. My husband would probably agree. He rolled his eyes as I told him what he'd been up to. It's not my mind's first **screening** of this particular dream, though the exact **cast** and plot vary. Do such dreams reveal anything? A generalised anxiety? A **deep-seated mistrust**? A premonition? Or, as some researchers have **posited**, is dreaming meaningless noise — a **byproduct** of the frantic neuronal activity that occurs during the phase of sleep known as 'rapid eye movement' or REM sleep? Jane Haynes is a London-based psychotherapist. She originally trained as a Jungian psychoanalyst and still believes there is great value in working with dreams and the unconscious. "Dreams carry a message of some kind," says Haynes. "They communicate in a nocturnal language." It's not, however, a language that **lends itself to** universal translation. Despite pop psychology claims to the contrary, dreams about teeth, or flying, or being naked in public do not each have their own one-size-fits-all meaning that can simply be decoded. "As a psychotherapist, I am guiding, not decoding," says Haynes. "It's always the context that's important when trying to make sense of a dream. Someone telling you what your dream means takes away your agency." One of Haynes' motivations is to encourage people to take dreams more seriously. "They are an incredibly important part of our lives," she says. Consider that we spend roughly onethird of our lives asleep — and about 20 per cent of the time we are asleep, dreaming — and it's hard to argue. Before we delve into the question of why exactly it is that we spend so much time in essentially a hallucinatory, delusional state, a word to those of you who claim not to dream at all: sorry,

you're wrong. Sleep laboratory research has shown that when people who say that they don't dream are monitored and periodically woken up during the night, they have been dreaming. They just don't remember it in the morning. The study of dreams — called oneirology — has a long history. In traditional Chinese culture, dreams were a portal into the future; in ancient Greece, it was believed that dreams were messages from the gods. "Sleep dormitories were held in the great arenas, where citizens could go to incubate their dreams, with dream guides on hand to interpret them," says Haynes. While we now know that dreams come from within, it's still not entirely clear what purpose they serve. It's a question that Professor Mark Solms, a neuroscientist at the University of Cape Town, has been investigating for more than three decades. His research has shed light on an intriguing, and seemingly contradictory, function of dreaming. It's natural to assume that the brain is in a resting state during sleep. Far from it. "Brain imaging studies show that during REM sleep, neuronal activity increases in many regions," Solms says. These include the visuospatial lobe and motor cortex, which govern movement and perception; the amygdala and cingu <u>late</u> cortex, which are the emotion-processing centres; and the hippocampus, which deals with autobiographic memory. The other sleep phases characterised by greater brain activity are shortly after falling asleep (in what's known as the 'sleep **onset** phase'), and when we are moving towards waking up (the 'late morning effect'.) "All three of these phases are associated with dreaming," says Solms. You'd think one would get a better night's rest without having to **flee** marauding zombies or play a piano concerto naked at the Royal Albert Hall — but Solms's **hunch** was that dreaming actually protected sleep. To test his theory, he studied a group of people with damage to a particular part of the brain called the parietooccipital cortex, which meant they did not — could not — dream. "They woke up repeatedly, especially just after they entered each phase of REM sleep," he says. "I have rarely witnessed such poor sleep." In simple terms, this suggests that one of the functions of dreaming is to harness all the brain activity that occurs during REM sleep, rather than allowing it to wake you up. One region of the brain is less active during REM sleep: the prefrontal cortex. This is the rational decision-making centre of the brain; Solms calls it the "head office". It's as if when this rational part of the brain is **off duty**, other

parts can **run riot**. For Sigmund Freud, the father of psychoanalysis, dreams represented our suppressed (and usually sexual) desires. But this has largely been dismissed. As Solms points out, "many of our dreams are anything but wishful thinking". Indeed, research spanning forty years and looking at more than fifty thousand dream reports shows that negative emotions are more commonly experienced than positive ones during dream states. The most commonly reported emotion is anxiety; over 80 per cent of people have dreamed of being **chased**. But there may be method to the brain's madness. In a series of fascinating studies, beginning in the 1960s, the <u>late</u> Dr. Rosalind Cartwright (aka the Queen of Dreams) monitored the sleep and dreams of people going through marital breakdowns. She woke them up during each phase of REM sleep to find out what they were dreaming about and discovered that those who dreamed about their situation were better able to cope with their real-life stress than those who did not. She also found that the 'emotional tone' (the term used to describe feelings associated with dream action; anxiety, confusion or shame, for example) of these dreams **lessened** with each phase of REM-sleep dreaming, **eliciting** a more neutral emotional response. When Cartwright <u>reassessed</u> her subjects a few months later, those who had not experienced dreams about their spouse or marital breakdown were more likely to have become depressed, leading her to describe dreaming as "an internal psychotherapist". When I tell Haynes about my recent dream, and how I couldn't help feeling **annoyed** with my husband in the morning, she tells me that it is common for waking mood to be affected by dreams — remarkably, even when we don't remember them. "Being able to attribute your mood to a dream experience is actually quite valuable, because it gives you the power to defuse it," she says. The idea that dreaming can help us work through unpleasant thoughts and events — the motional regulation hypothesis — is now widely accepted and backed up by further research. In one study, subjects were exposed to a set of emotionally powerful images while having their brain activity measured inside a functional MRI scanner. One half of the subjects saw the images in the morning and again, twelve hours <u>late</u>r, in the evening. The other half saw them in the evening and for the second time the following morning, after a night's sleep. Those who'd slept on it reported a less emotional response to the images the second time around than those who had not, and their MRI

scans showed less activity in the emotional processing centre of the brain, suggesting that sleep — specifically, REM sleep — had toned down the distress associated with the experience. There are, however, other theories about the function of dreams. Simulation theory — <u>rooted</u> in evolutionary biology — posits that dreams are a rehearsal for threats and negative situations, offering us experience to draw on should we face such situations in real life. (I'll be well rehearsed if my husband ever does run off with someone else, then.) **Rehashing**, rather than rehearsing, is the basis for the continuity hypothesis, which frames dreams as a reflection of recent waking life concerns, thoughts and experiences (something Freud called "day residue".) For example, animal rights activists dream more about animals than the average person. And dog owners who sleep in close proximity to their dogs dream more about dogs than those whose canine companions sleep in a different part of the house. If that all sounds a bit literal, it's worth noting that research by Dr. Robert Stickgold, professor of psychiatry at Harvard Medical School, suggests that continuity isn't concerned so much with events as with the associated emotional tone. He found that dreamers themselves were able to recognise the emergence of daytime emotions, experiences or concerns in their dreams. Stickgold went on to look at the effect of dreams on memory consolidation, using a virtual maze study. First, subjects had to find their way out of the maze from different random locations, passing memorable landmarks along the way. Over the next five hours, half the group got a ninety-minute **nap** while the others remained awake. When they were retested in the maze, sleep had had a positive effect on memory but people who had dreamed specifically about the maze, or clearly-related themes, improved their performance ten times more than those who did not. Sleep was important, but it was dreaming that served as a problem-solving activity. It is said that the 19th-century Russian scientist Dmitri Mendeleev envisioned the periodic table in a dream. Samuel Taylor Coleridge's poem Kubla Khan: or A Vision in a Dream <u>allegedly</u> came to him in a dream (and remained unfinished because he was disturbed while trying to write it down on waking.) While the evidence that dreaming (as opposed to sleep, per se) can **boost** creativity is largely anecdotal, Haynes says that our dreams are a unique resource through which we can access our creativity. "And they are free," she adds. I'm still not sure what to make of my infidelity dream — <u>let alone</u> the one in which I have killed someone and hidden the body, only for it to be discovered decades <u>later</u>. But I am convinced that there is more to it than random electrical activity. "I have no trouble with the idea that dreams reveal something," says Solms. "What's surprising is that after 120 years of dream research — and all the technology at our fingertips — we still know so little". Published in The Guardian on 20 June 2024. Reprinted with permission.

Glossary

- reassessed = rivalutare
- screening = proiezione
- lends itself to = prestare
- eliciting = provocare, suscitare
- nap = pisolino
- let alone = per non parlare di
- muster = radunare
- He rolled his eyes = sgranare gli occhi
- onset = inizio, principio
- **flee** = fuggire
- run riot = scatenarsi
- aka = anche noto come (also known as)
- **Rehashing** = rielaborazione
- blatantly = palesemente
- visuospatial lobe = lobo visuo-spaziale
- to cope = resistere, reagire
- maze = labirinto
- allegedly = secondo quanto si dice
- **boost** = promuovere, aumentare
- off duty = fuori servizio
- wishful thinking = pia illusione
- marauding = depredare
- to defuse = disinnescare
- rooted = radicata
- posited = ipotizzare
- one-size-fits-all = uquale per tutti
- cast = personaggi
- byproduct = sottoprodotto
- delve into = investigare
- betrayal = tradimento
- deemed = considerare
- late = defunta
- **lessened** = diminuire

- rehearsal = prova
- cavorting = fare festa
- chased = inseguire
- mistrust = sfiducia
- hunch = presentimento, presagio
- to harness = sfruttare
- annoyed = essere infastidita
- MRI = risonanza magnetica (magnetic resonance imaging)
- **Never mind** = non importa, non fa niente
- deep-seated = profonda