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# The Untold Truths of Jeanne D'Arc

Sharon Jishu

## Who was Joan Of Arc?

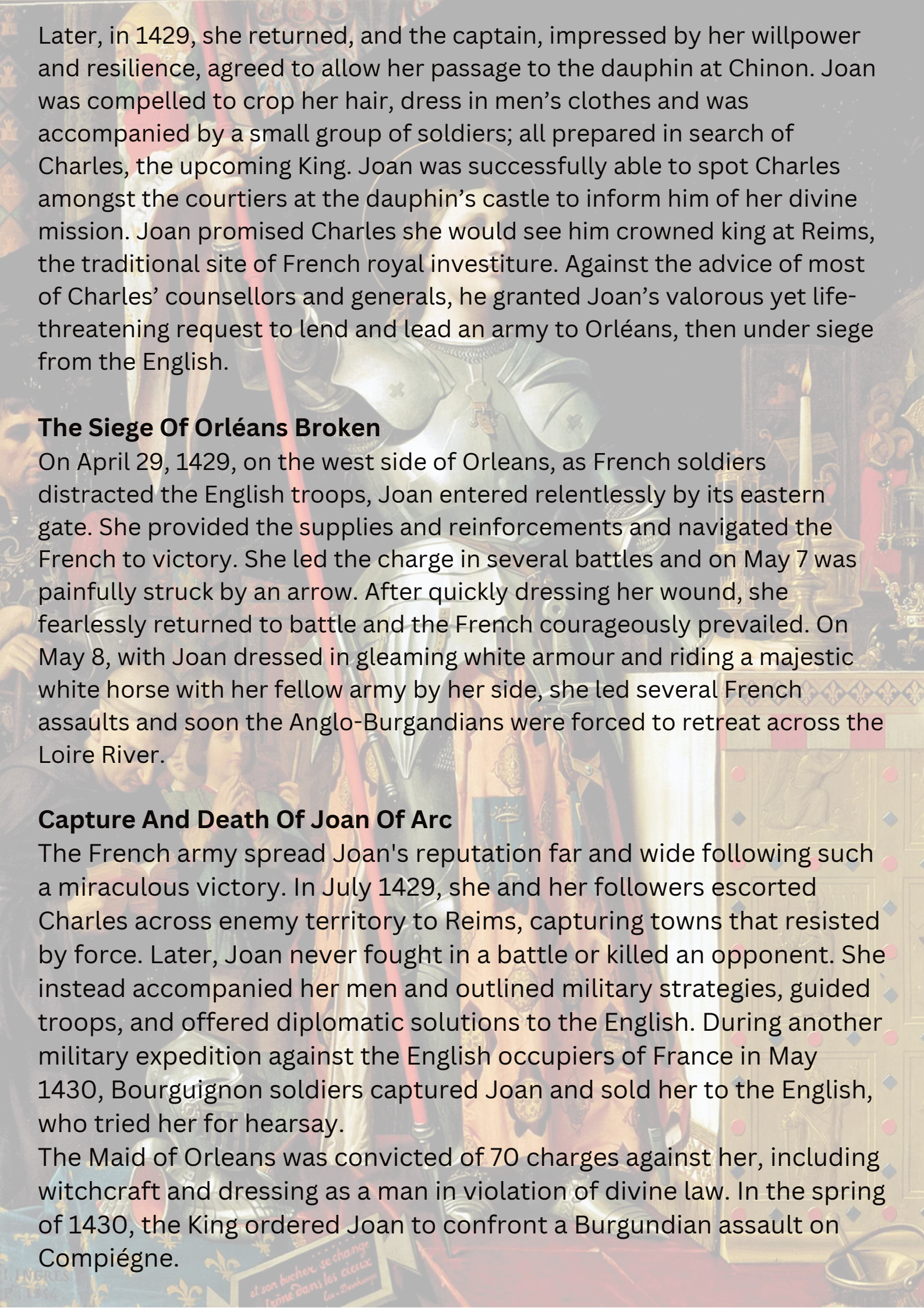
The eminent patron of France, Jeanne d'Arc (or in English, Joan of Arc) born on January 6, 1412, was the daughter of a village tenant farmer. Although her pious mother, Isabelle Romée, instilled in her a profound love for the Catholic Church and its teachings, she was sadly not taught to read or write.

Bizarrely, Joan aged thirteen years, began hearing voices and seeing visions which she believed were sent by none other than God. These uncanny voices and visions told her that it was her mission to free her country from the English, and help the dauphin, Charles, gain the French throne. An article providing briefs on these ghostly voices and visions stated that Joan is reported to have said that the "sound of bells" occasionally triggered the voices. The inquisitive publishers of this article - Giuseppe d'Orsi and Paolo Tinuper further explored to only find that hearing certain sounds can be a trigger for epileptic seizures.

## The Siege Of Orléans

At the time, France had long been torn apart by a bitter conflict with England, later known as the Hundred Years' War, in which England had gained the upper hand.

At the age of 16, her father attempted to arrange a marriage for her, however, Joan made a vow of chastity as part of the divine mission and successfully persuaded a local court that she should not be forced to accept the match. Instead, in 1428, her determination led her to Vaucouleurs, a stronghold of the dauphin, in an attempt to inform the garrison of the eerie voices and visions she occasionally heard. Disbelieving the young peasant girl, he sent her home.



Later, in 1429, she returned, and the captain, impressed by her willpower and resilience, agreed to allow her passage to the dauphin at Chinon. Joan was compelled to crop her hair, dress in men's clothes and was accompanied by a small group of soldiers; all prepared in search of Charles, the upcoming King. Joan was successfully able to spot Charles amongst the courtiers at the dauphin's castle to inform him of her divine mission. Joan promised Charles she would see him crowned king at Reims, the traditional site of French royal investiture. Against the advice of most of Charles' counsellors and generals, he granted Joan's valorous yet life-threatening request to lend and lead an army to Orléans, then under siege from the English.

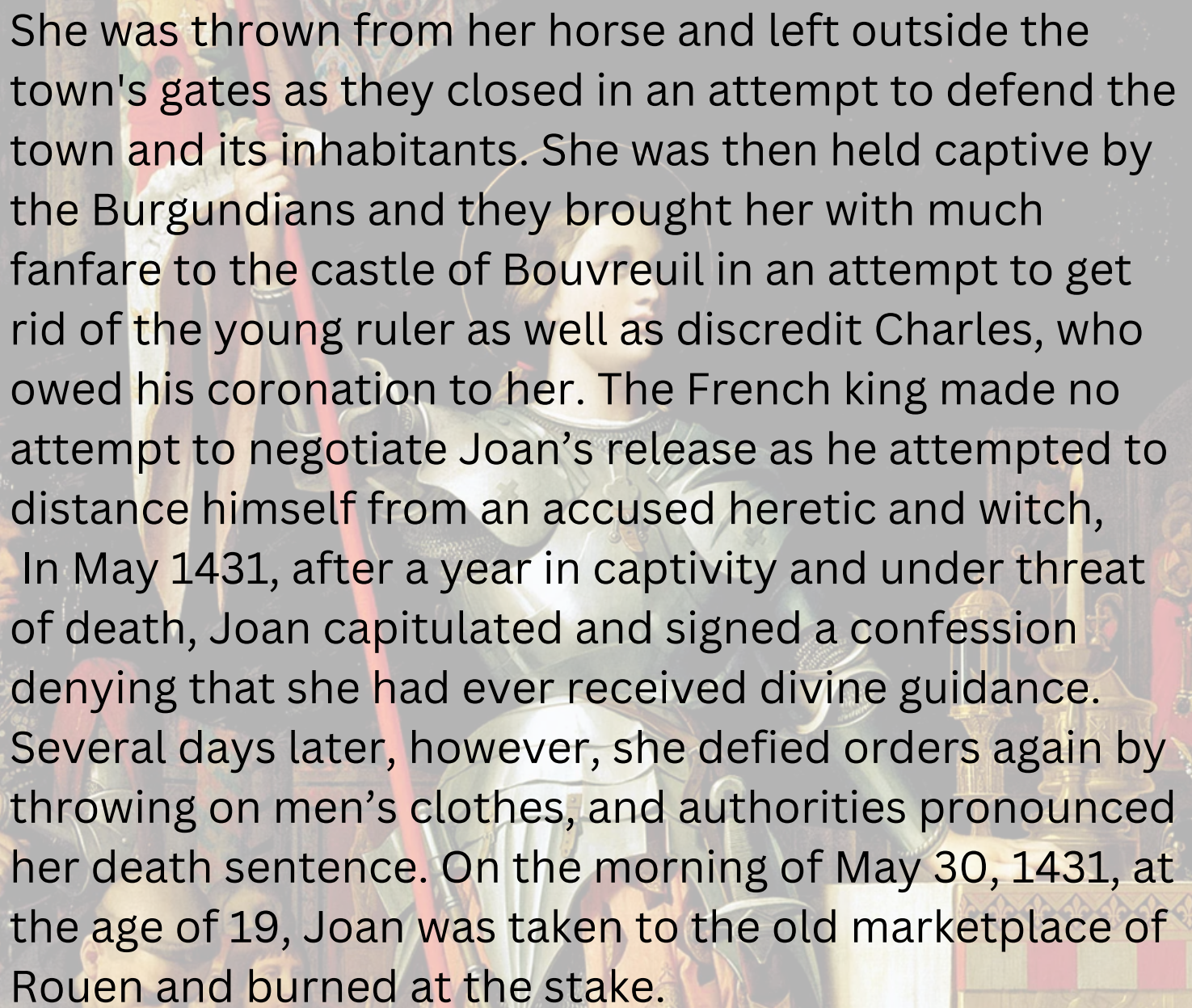
### **The Siege Of Orléans Broken**

On April 29, 1429, on the west side of Orleans, as French soldiers distracted the English troops, Joan entered relentlessly by its eastern gate. She provided the supplies and reinforcements and navigated the French to victory. She led the charge in several battles and on May 7 was painfully struck by an arrow. After quickly dressing her wound, she fearlessly returned to battle and the French courageously prevailed. On May 8, with Joan dressed in gleaming white armour and riding a majestic white horse with her fellow army by her side, she led several French assaults and soon the Anglo-Burgundians were forced to retreat across the Loire River.

### **Capture And Death Of Joan Of Arc**

The French army spread Joan's reputation far and wide following such a miraculous victory. In July 1429, she and her followers escorted Charles across enemy territory to Reims, capturing towns that resisted by force. Later, Joan never fought in a battle or killed an opponent. She instead accompanied her men and outlined military strategies, guided troops, and offered diplomatic solutions to the English. During another military expedition against the English occupiers of France in May 1430, Bourguignon soldiers captured Joan and sold her to the English, who tried her for hearsay.

The Maid of Orleans was convicted of 70 charges against her, including witchcraft and dressing as a man in violation of divine law. In the spring of 1430, the King ordered Joan to confront a Burgundian assault on Compiègne.



She was thrown from her horse and left outside the town's gates as they closed in an attempt to defend the town and its inhabitants. She was then held captive by the Burgundians and they brought her with much fanfare to the castle of Bouvreuil in an attempt to get rid of the young ruler as well as discredit Charles, who owed his coronation to her. The French king made no attempt to negotiate Joan's release as he attempted to distance himself from an accused heretic and witch, In May 1431, after a year in captivity and under threat of death, Joan capitulated and signed a confession denying that she had ever received divine guidance. Several days later, however, she defied orders again by throwing on men's clothes, and authorities pronounced her death sentence. On the morning of May 30, 1431, at the age of 19, Joan was taken to the old marketplace of Rouen and burned at the stake.

At the end of the day, Joan Of Arc has proved to be one of the most influential and valourous figures of French History. Moreover, she has inspired numerous works of art and literature, including the classic silent film "The Passion of Joan of Arc." As she is regarded as one of the patron saints of France, one of the patron saints of soldiers, and a liberator of France—a national heroine—36 gilded bronze statues have been erected in her honour, 20 of which are replicas. The original artwork can be found in Paris at the Place des Pyramides, near where Joan of Arc was wounded in her unsuccessful attempt to take Paris.

# Malala's Story

Lyla Khan


Once upon a time, there was a girl.

This is how stories usually start; with a girl, boy or any sort of character as the main focus. Yet this one is both a story and real life because while there are millions of girls across the world, this one particular girl changed the whole world. But she did it with a pen and her words, rather than with anything else. Her name is Malala Yousafzai, the youngest person ever to win a Nobel Peace Prize, and the second person to win a Nobel from Pakistan.

Malala is a children's education rights activist who began speaking out about her beliefs when she was only eleven years old. She spoke out against the Taliban, who invaded her hometown of Swat and forced women to stay at home and wear burqas. They were a group who believed that women shouldn't speak their thoughts, were only useful for cooking and cleaning, and shouldn't step outside of the house without male accompaniment.

They did not only believe this, but believed so forcefully that they were willing to kill to get what they wanted.

To take such important, human rights away from a group of people is already a horrible thing to do, however, it's even worse of a terrible deed as the group succeeded in stripping innocent people of the ability to be equal to everyone else.



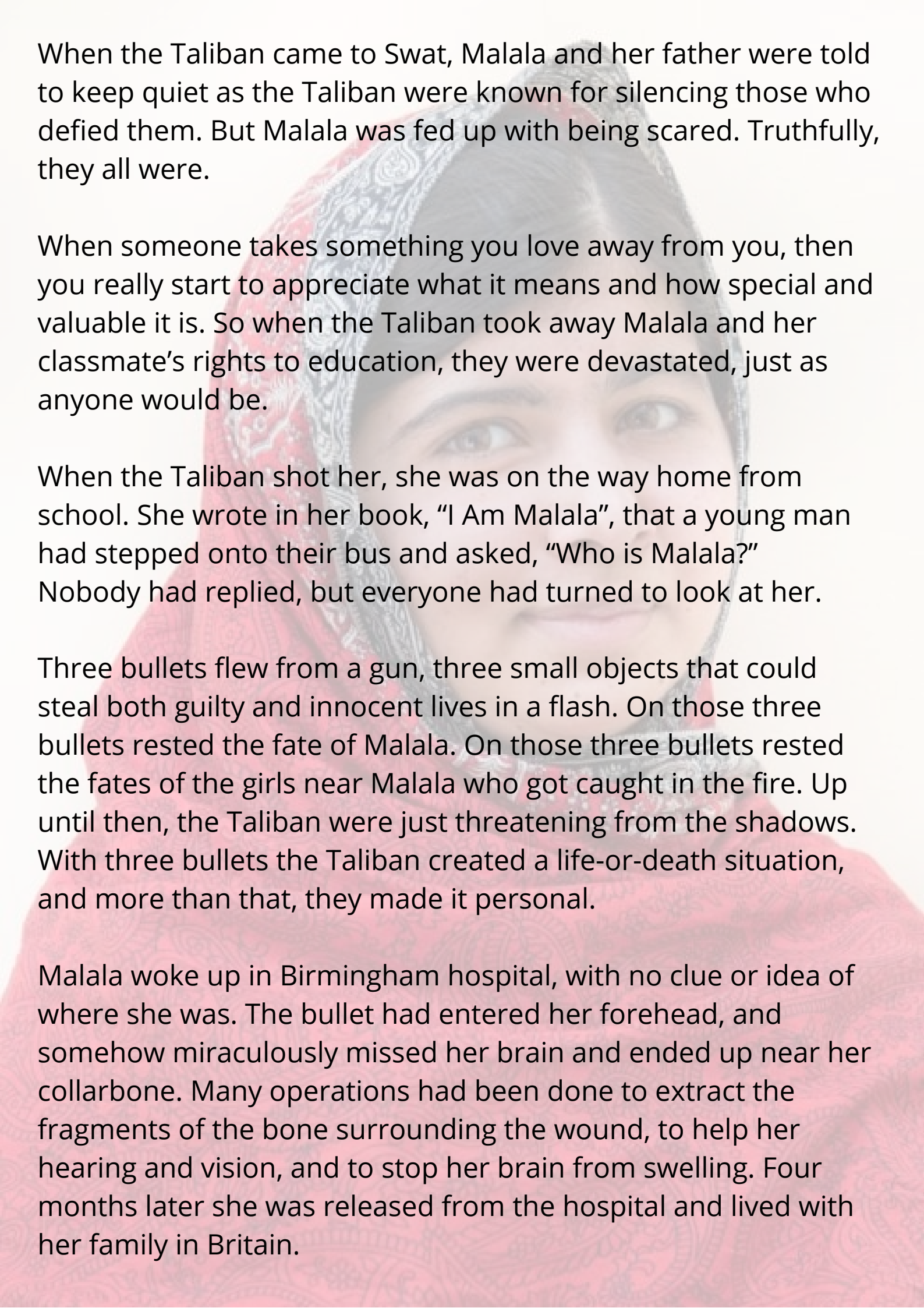
The Taliban believed that women were below men and weren't shy about these beliefs. If people tried to say "No", horrific things happened. People died, and innocent children were murdered alongside elderly adults. People were hurt. Hearts were hurt, just as they are when someone takes a place you love and turns it into a danger zone.

They turned their perceptions of Islam into these actions, claiming that murder and bombing were for necessary causes. Islam is supposed to be a beautiful religion of love and peace, not a hateful one of violence and war. No religions are intended to be hateful, they were made to have a good impact on humanity.

People were furious, people were terrified, but no one did anything about it. What point is there in having these feelings and opinions yet not speaking up about them? Not using your words? Not using your actions?

The Taliban declared that girls shouldn't go to school and shouldn't be educated, and proceeded to blow up these schools soon after. People were scared, Malala was scared, and everyone was scared. But it was because she was scared that she was able to take action, as "Courage is not the absence of fear, but the triumph over it." Nelson Mandela spoke these wise words and they applied to Malala's story more than anyone would know.

Malala's father had always spoken out for education rights, particularly that of girls. He opened an all-girls high school along with a girls and boys primary school and regularly gave less fortunate children free lessons and positions as pupils. At home, Malala's mother would regularly host meals for these children, and overall Malala saw the importance of giving children their rights as clearly as anyone.



When the Taliban came to Swat, Malala and her father were told to keep quiet as the Taliban were known for silencing those who defied them. But Malala was fed up with being scared. Truthfully, they all were.

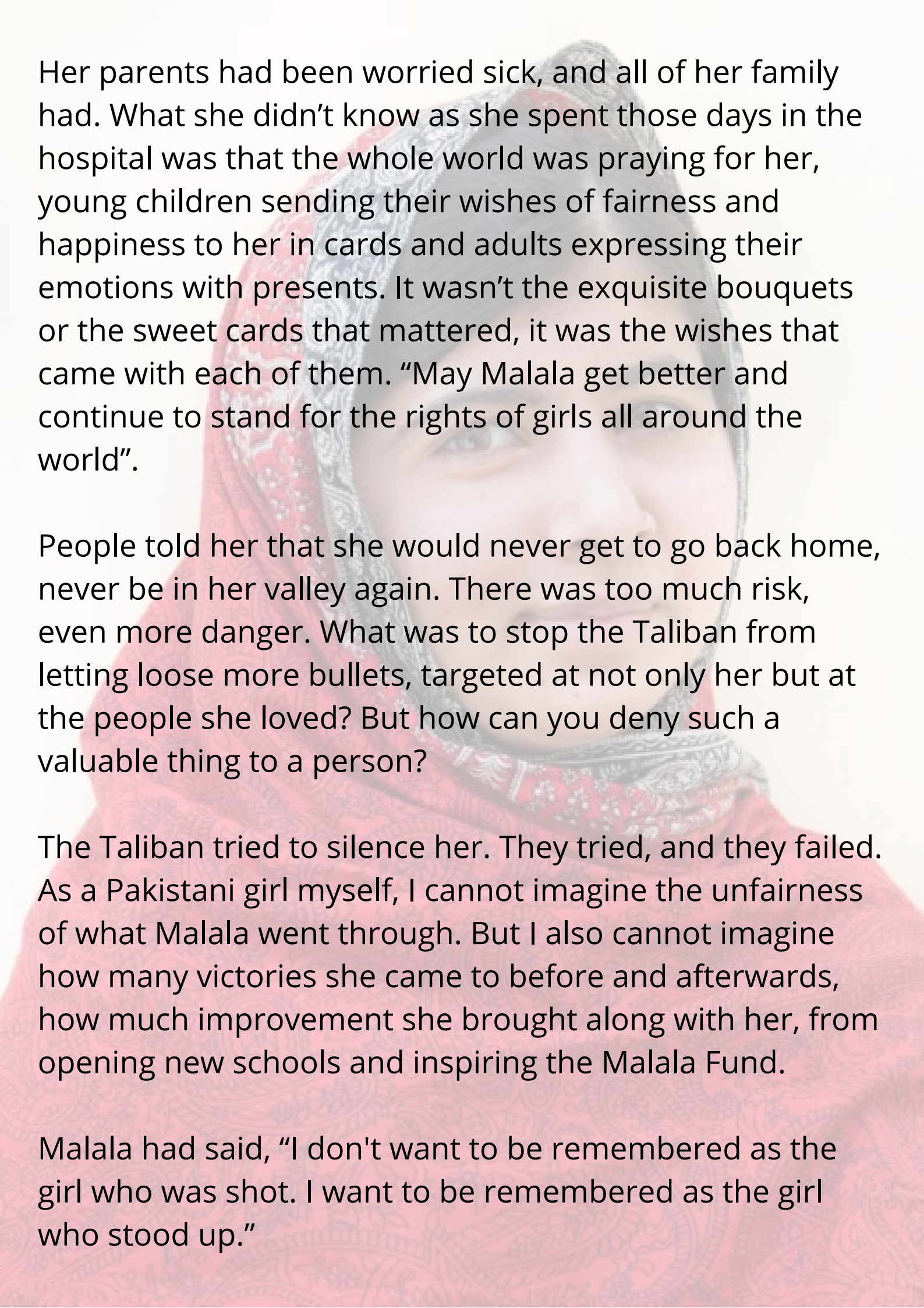
When someone takes something you love away from you, then you really start to appreciate what it means and how special and valuable it is. So when the Taliban took away Malala and her classmate's rights to education, they were devastated, just as anyone would be.

When the Taliban shot her, she was on the way home from school. She wrote in her book, "I Am Malala", that a young man had stepped onto their bus and asked, "Who is Malala?" Nobody had replied, but everyone had turned to look at her.

Three bullets flew from a gun, three small objects that could steal both guilty and innocent lives in a flash. On those three bullets rested the fate of Malala. On those three bullets rested the fates of the girls near Malala who got caught in the fire. Up until then, the Taliban were just threatening from the shadows. With three bullets the Taliban created a life-or-death situation, and more than that, they made it personal.

Malala woke up in Birmingham hospital, with no clue or idea of where she was. The bullet had entered her forehead, and somehow miraculously missed her brain and ended up near her collarbone. Many operations had been done to extract the fragments of the bone surrounding the wound, to help her hearing and vision, and to stop her brain from swelling. Four months later she was released from the hospital and lived with her family in Britain.



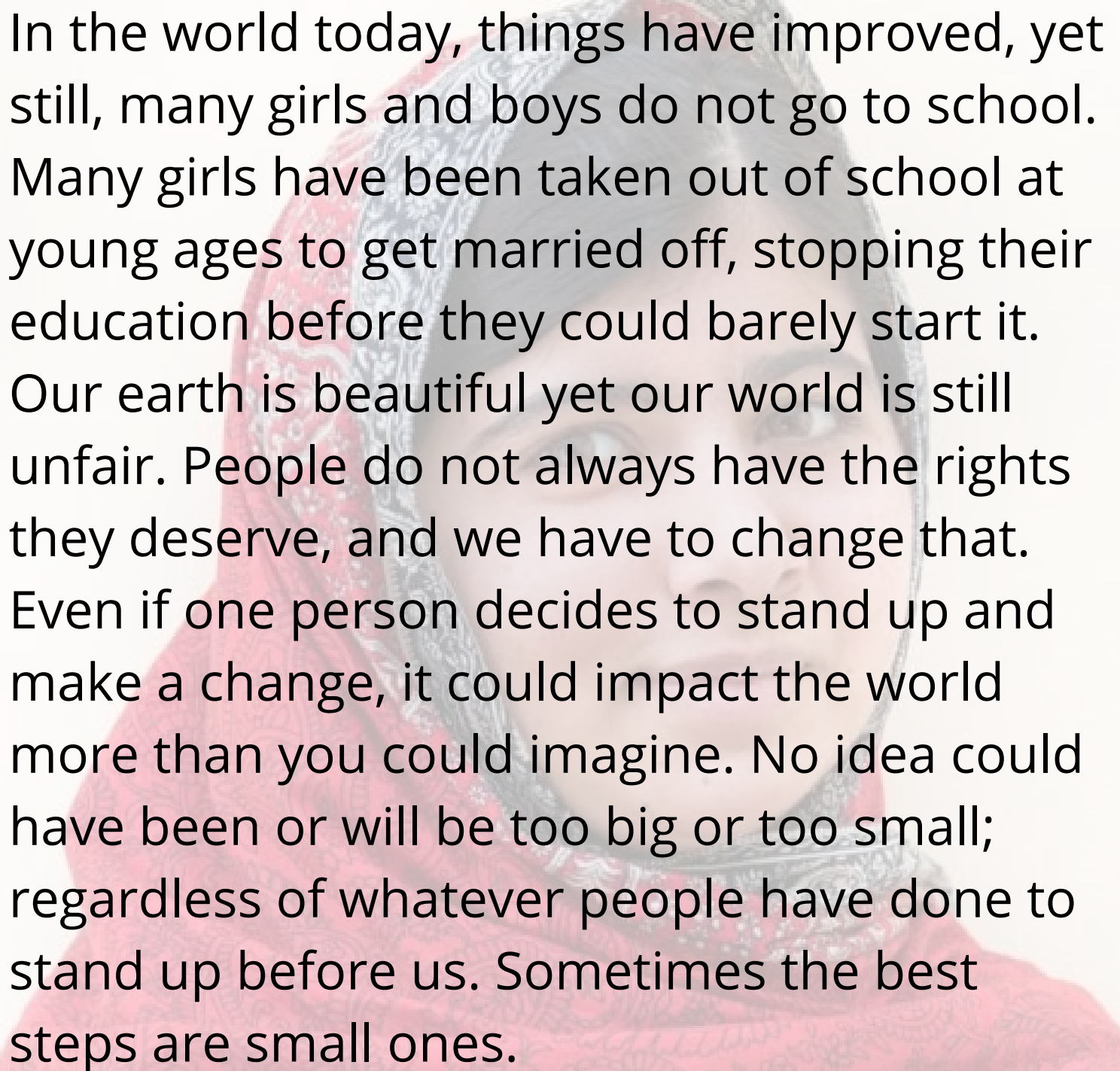


Her parents had been worried sick, and all of her family had. What she didn't know as she spent those days in the hospital was that the whole world was praying for her, young children sending their wishes of fairness and happiness to her in cards and adults expressing their emotions with presents. It wasn't the exquisite bouquets or the sweet cards that mattered, it was the wishes that came with each of them. "May Malala get better and continue to stand for the rights of girls all around the world".

People told her that she would never get to go back home, never be in her valley again. There was too much risk, even more danger. What was to stop the Taliban from letting loose more bullets, targeted at not only her but at the people she loved? But how can you deny such a valuable thing to a person?

The Taliban tried to silence her. They tried, and they failed. As a Pakistani girl myself, I cannot imagine the unfairness of what Malala went through. But I also cannot imagine how many victories she came to before and afterwards, how much improvement she brought along with her, from opening new schools and inspiring the Malala Fund.

Malala had said, "I don't want to be remembered as the girl who was shot. I want to be remembered as the girl who stood up."



In the world today, things have improved, yet still, many girls and boys do not go to school. Many girls have been taken out of school at young ages to get married off, stopping their education before they could barely start it. Our earth is beautiful yet our world is still unfair. People do not always have the rights they deserve, and we have to change that. Even if one person decides to stand up and make a change, it could impact the world more than you could imagine. No idea could have been or will be too big or too small; regardless of whatever people have done to stand up before us. Sometimes the best steps are small ones.

The outcome is most definitely worth it. As Malala said:

**“One child, one teacher, one pen, and one book can change the world.” Indeed they can.**

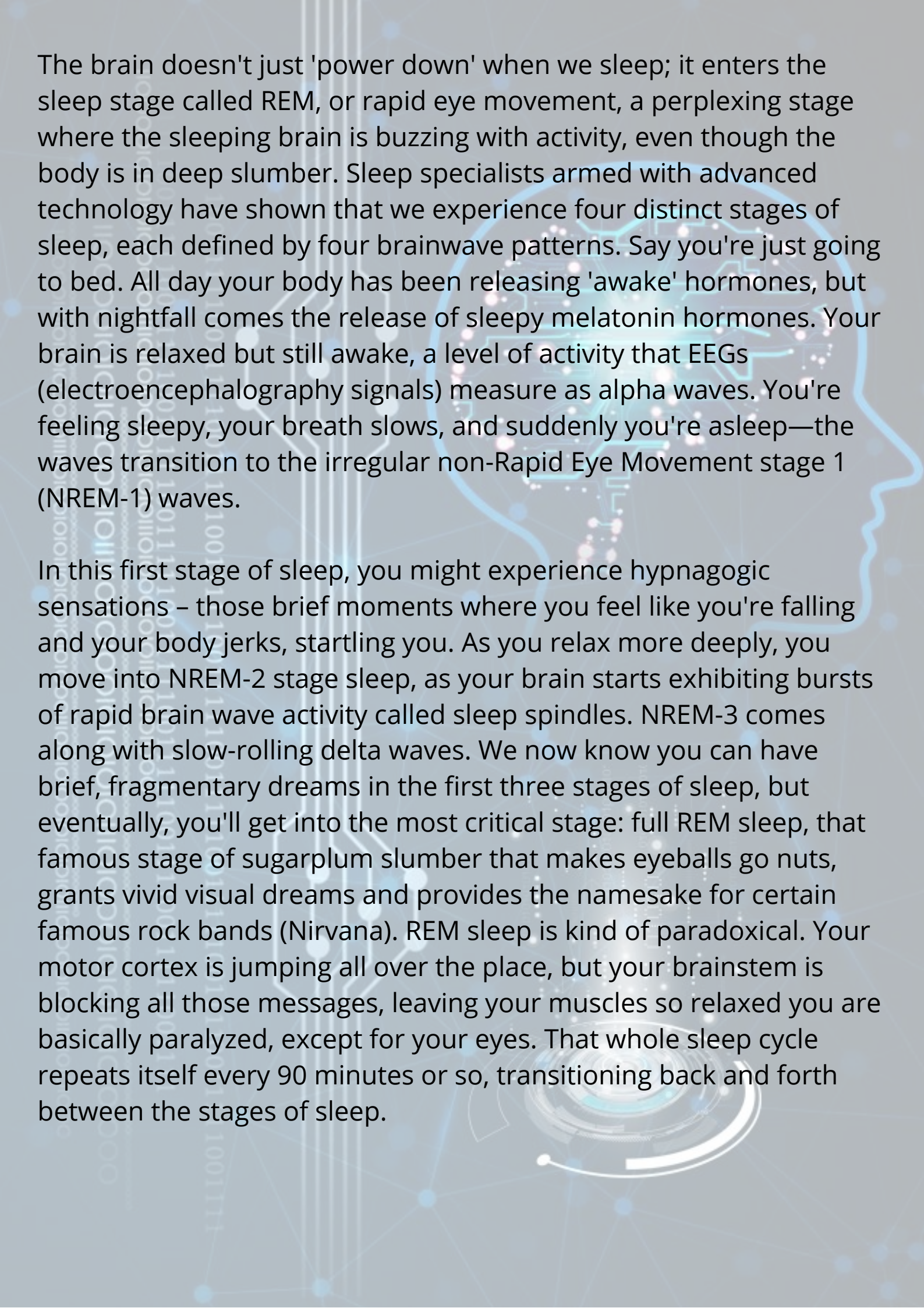
# How Does The Brain Function When We Are Asleep?

Emma Thomas

Sleep is not just some break time when your brain or body goes dormant. That's far from it.

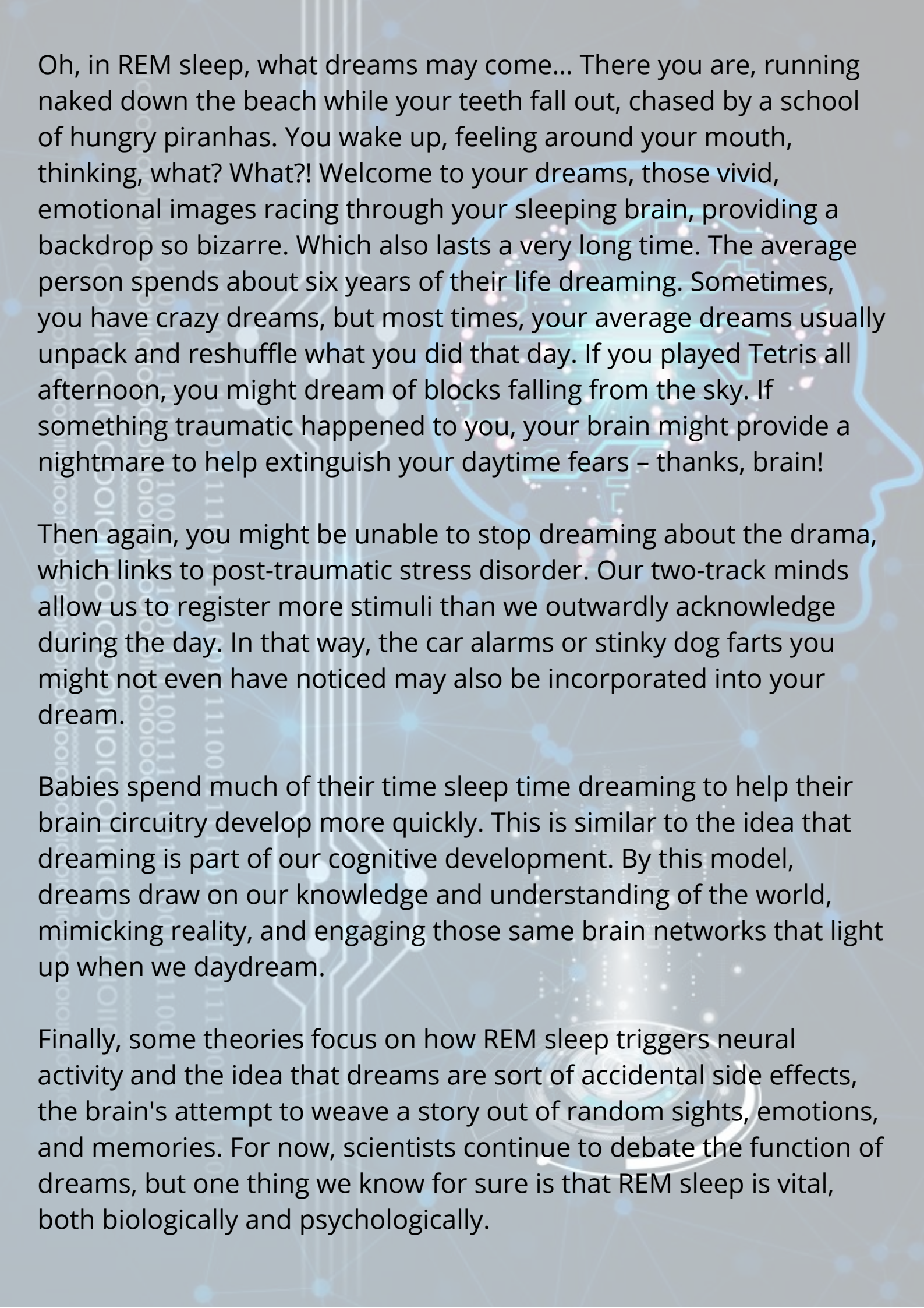
In truth, sleep is just another state of consciousness. Only in the past few decades have we begun to plumb its depths – from why we sleep in the first place, to what goes on in our brains when we do, to what happens when we can't sleep. And there is a lot that science has to say about our dreams. Even though it may seem like you are dead to the world, your perceptual window remains slightly open when you sleep.

Technically speaking, sleep is a periodic, natural, reversible, and near-total loss of consciousness, meaning it's different from hibernation, being in a coma, or anaesthetic oblivion. Although we spend about a third of our lives sleeping, and we know it's essential to our health and survival, there still isn't a scientific consensus as to why we do it. Part of it probably involves simple recuperation, allowing our cells to repair themselves. Sleep also supports growth, as it is when our pituitary glands release growth hormones, which is why babies sleep all the time. Sleep also benefits mental functions, such as improving memory and boosting creativity.



The brain doesn't just 'power down' when we sleep; it enters the sleep stage called REM, or rapid eye movement, a perplexing stage where the sleeping brain is buzzing with activity, even though the body is in deep slumber. Sleep specialists armed with advanced technology have shown that we experience four distinct stages of sleep, each defined by four brainwave patterns. Say you're just going to bed. All day your body has been releasing 'awake' hormones, but with nightfall comes the release of sleepy melatonin hormones. Your brain is relaxed but still awake, a level of activity that EEGs (electroencephalography signals) measure as alpha waves. You're feeling sleepy, your breath slows, and suddenly you're asleep—the waves transition to the irregular non-Rapid Eye Movement stage 1 (NREM-1) waves.

In this first stage of sleep, you might experience hypnagogic sensations – those brief moments where you feel like you're falling and your body jerks, startling you. As you relax more deeply, you move into NREM-2 stage sleep, as your brain starts exhibiting bursts of rapid brain wave activity called sleep spindles. NREM-3 comes along with slow-rolling delta waves. We now know you can have brief, fragmentary dreams in the first three stages of sleep, but eventually, you'll get into the most critical stage: full REM sleep, that famous stage of sugarplum slumber that makes eyeballs go nuts, grants vivid visual dreams and provides the namesake for certain famous rock bands (Nirvana). REM sleep is kind of paradoxical. Your motor cortex is jumping all over the place, but your brainstem is blocking all those messages, leaving your muscles so relaxed you are basically paralyzed, except for your eyes. That whole sleep cycle repeats itself every 90 minutes or so, transitioning back and forth between the stages of sleep.



Oh, in REM sleep, what dreams may come... There you are, running naked down the beach while your teeth fall out, chased by a school of hungry piranhas. You wake up, feeling around your mouth, thinking, what? What?! Welcome to your dreams, those vivid, emotional images racing through your sleeping brain, providing a backdrop so bizarre. Which also lasts a very long time. The average person spends about six years of their life dreaming. Sometimes, you have crazy dreams, but most times, your average dreams usually unpack and reshuffle what you did that day. If you played Tetris all afternoon, you might dream of blocks falling from the sky. If something traumatic happened to you, your brain might provide a nightmare to help extinguish your daytime fears - thanks, brain!

Then again, you might be unable to stop dreaming about the drama, which links to post-traumatic stress disorder. Our two-track minds allow us to register more stimuli than we outwardly acknowledge during the day. In that way, the car alarms or stinky dog farts you might not even have noticed may also be incorporated into your dream.

Babies spend much of their time sleep time dreaming to help their brain circuitry develop more quickly. This is similar to the idea that dreaming is part of our cognitive development. By this model, dreams draw on our knowledge and understanding of the world, mimicking reality, and engaging those same brain networks that light up when we daydream.

Finally, some theories focus on how REM sleep triggers neural activity and the idea that dreams are sort of accidental side effects, the brain's attempt to weave a story out of random sights, emotions, and memories. For now, scientists continue to debate the function of dreams, but one thing we know for sure is that REM sleep is vital, both biologically and psychologically.

# Qatar 2022: The Impact of the World Cup

Ansh Mandal

## Overview

The FIFA World Cup can be seen as the world's most watched and followed sporting event, with fans from all over the world coming together to experience this mega sport. With many nail biting matches which led up to the lucky winning team (Congratulations Argentina), the World Cup has been an exciting moment of history to watch.

Qatar was the proud host of the world cup, being the first Middle Eastern country to do so. Qatar is unrecognizable from the country it was 12 years ago when it won its bid to host the 2022 FIFA World Cup. Qatar is estimated to have spent as much as \$220 billion in the dozen years since being chosen as a World Cup host in late 2010, more than 15 times what Russia spent for the 2018 event (by far, the most expensive World Cup in history). For context, Russia spent just \$16 billion in 2018, Brazil about \$20 billion in 2014, and South Africa about \$7 billion in 2010 to get everything in order. Qatar spent this money on building an entirely new city: 7 new stadiums for just 64 matches, a state-of-the-art metro system and hundreds of new apartment and hotel buildings.

Despite such humongous spending, Qatar welcomed more than 1.4 million visitors from around the world during the tournament, with the total attendance figure for all matches combined at 3.4 million people, compared to Russia, which had just over 3 million people attending the 2018 World Cup.

### Impact on Qatar's Economy

The Middle East is already known for its wealth and is attributed to investing in sports heavily and one must not forget that when calculating the benefits of hosting the World Cup, projections are also based on future income avenues. Well, there's a larger goal in mind here: Qatar's grand national vision for 2030. The plan was to spend big money not just on infrastructure, but on building the future, and on creating a city that's more appealing to visitors and businesses and eventually a key international destination.

The World Cup has, and will continue to, provide a great legacy for Qatar's reputation and has given Qatar a sense of prestige of being entrusted to host such a significant international sporting event. Therefore, it is willing to pay the huge price tag for this sense of honour and pride.

## What is Qatar planning to do with these stadiums?

In all recent hosting countries, stadiums which are built for the world cup only to be in use for a couple of weeks, and are assumed to be constructed to take advantage of other sporting events, concerts etc. Unfortunately, this doesn't seem to be possible for Qatar, keeping in mind that the Qatar population is just about 3 million. With the small population, most of these structures won't be needed. In perspective, Russia is home to more than 140 million people, and Brazil is home to more than 20 million people. Knowing that the two countries could not fill up their stadiums, it was highly unlikely for Qatar to do so as well. However, Qatar planned that some of the stadiums will be dismantled and recycled, while others will be downsized, and some transformed into residential and shopping destinations.

One such stadium, Ras Abu Aboud Stadium 974, which is made up of 974 recycled shipping containers (it's not a random number, that's Qatar's international dialling code), will be completely dismantled and shipped to a yet-to-be-decided-upon country, in need of a second-hand sports stadium.

The Lusail Stadium (the largest one) is being transferred into many multipurpose venues to be used in the future. For example, this stadium will be transformed to make shops, restaurants and a school. The Al Bayt is planned to be converted into a five-star hotel and shopping centre. The pitch of both stadiums is planned on being kept, to host a variety of events.

Three other stadiums (Ahmad Bin Ali, Al Janoub, and Al Thumama) are planning to still be used as sporting stadiums, after being downsized. As mentioned before, the stadium's infrastructure will be used to host events. This was also done in Brazil in 2016 when they used 5 former football stadiums to host the Summer Olympics. However, this led Brazil back to the same problem after the Olympics ended.



The Education City Stadium, which is where most of Qatar's universities and research facilities are located, will serve students and faculty from nine different universities and 11 schools.

To conclude, I believe that Qatar has done a remarkable job in hosting the FIFA World Cup of 2022. However, this is not the only thing Qatar will be hosting. Qatar is also proud to be the host of the Asian World Cup of 2024, which will take place for teams in Asia and Oceania. Not only that, but they are also going to be hosting the 2030 DOHA Asian Games, which is an international athletics tournament and has more participants than the Olympics, and the initial win of the FIFA bid and the exposure it has granted Qatar was a huge contributing factor to the other events. These are the types of sporting tournaments that they plan on hosting with Ahmad Bin Ali, Al Janoub, and Al Thumama Stadium.



# It Takes One Flame To Start A Fire

**Joshua Stapley**

The matchgirls' strike of 1888 revolved around the appalling working conditions of the matchbox-making factory and the lack of health security within the factory. The factory's production process of matchsticks involved dipping the poplar or pine wood sticks into a solution consisting of phosphorus, antimony sulfide, and potassium chloride. However, within this mixture, the deviations in the percentage of phosphorus had severe and potentially lethal results, including a disease referred to as "phossy jaw" or osteonecrosis, which was a form of bone cancer where the teeth would first fall out, and the bone would decay leading to severe facial disfigurement.

The strike was based on the Bryant and May factory established by William Bryant and Francois May in 1861 and employed over 2000 girls. There were workers aged six years old to young teen girls, a large percentage of the workforce, who work 12-14 hours a day, six days a week. Additionally, even though they already had very little income, their meagre wage was diminished by fines that were consequences of minor offences such as lateness and talking. Ostensibly, the working conditions were drastic, so someone had to speak up.

## **The story of Sarah Chapman and how the matchgirl strike came to be:**

Shortly before the strike, on the 15th of June 1888, the Fabian Society held a meeting where a Social Reformer, Clementina Black, expressed her views on the repulsive state of female labor. Henry Hyde Champion pointed out that the factory was taking over 20% of dividends for their shareholders and still paying their workers low wages. He proposed a movement to boycott the investment of Bryant and May matches, which Herbert Burrows supported, and it was enacted unanimously.

Mrs. Mary Naulls and Sarah Chapman were given the opportunity to see Annie Besant, and, despite her not compromising with the strike, Annie decided to help them and initiated a Strike Committee, which consisted of Mrs. Mary Naulls, Sarah Chapman, Alice Francis, Kate Sclater, Mary Driscoll, Jane Wakeling, Eliza Martin and Mrs. Mary Cummings.

British socialist, theosophist and women's rights activist Annie Besant directed a magazine named 'The Link,' Following the meeting with the Matchgirls, she published the article on the 23rd of June, titled 'White Slavery in London.' After uncovering this, Bryant and May threatened to sue Annie Besant for vilification and insisted that their employee's sign to convey the article was mistaken. Upon their refusal, Annie received a letter from the girls on or before the 6th of July:

'My Dear Lady, – we thank you very much for the kind interest you have taken in us poor girls, and hope that you will succeed in your undertakings. Dear lady, you need not trouble yourself about the letter I read in the Link that Mr. Bryant sent you, because you have spoken the truth, and we are very pleased to read it. Dear lady, they are trying to get the poor girls to say that it is all lies that has been printed, and trying to make them sign papers to say it is lies; dear lady, no one knows what we have to put up with, and we will not sign them. We all thank you very much for the kindness you have shown to us. My dear lady, we hope you will not get into any trouble on our behalf, as what you have spoken is quite true; dear lady, we hope that if there will be any meeting we hope you will let us know it in the book. I have no more to say at present, from yours truly, with kind friends wishes for you, dear lady, for the kind love you have shown us, poor girls. Dear lady, do not mention the date this letter was written or I might have put my or our names, but we are frightened, do keep that as a secret, we know you will do that dear lady.'

As a result, the furor of the treacherous libel created by Annie Besant led to an apparent sacking. Therefore on the 5th of July 1888, 1400 girls and women walked out on strike.

Post-strike:

On the 17th of July, the London Trades Council and the Strike Committee met with the Bryant & May moderators.

A set of demands or terms was requested:

1. All fines should be repealed
2. All deductions for paint, brushes, and stamps should be put an end to
3. The 3D. should be restored to the packers
4. The "Pennies" should be restored, or an equivalent advantage given in the system of payment of the boys who do the racking
5. All grievances should be laid directly before the firm, ere any hostile action was taken
6. All the girls are to be taken back

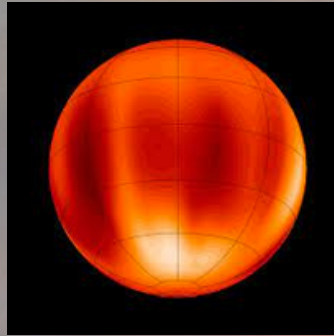
All these terms were met.

At first, the factory owners declared that they would not hire the girls again. Yet on the 21st of July, they gave in to the "match girls" demand and re-employed those who had been sacked, which concluded the strike.

The 1888 match girl strike had provided an impetus for additional working-class labor activists to set up inexperienced worker associations known as "New Unionism" and had paved the way for vital changes in the industrial setting, providing justice for many who have faced life-threatening diseases and continued working in hostile environments.

# Brown Dwarfs

Ridhan Mahanty

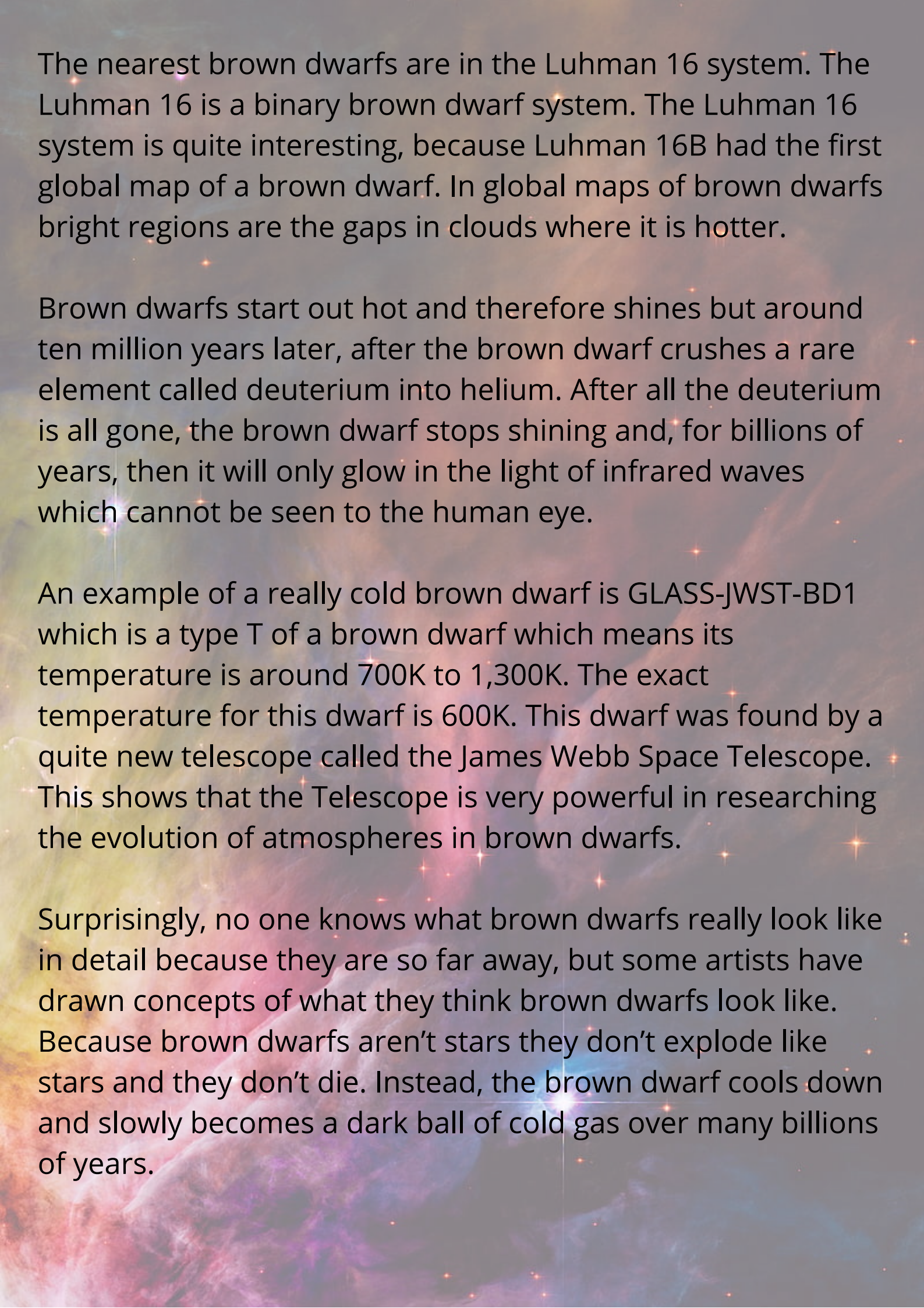


Brown dwarfs are a sort of middle ground between planets and stars as they are not fully stars, as they can not sustain hydrogen fusion, and are not planets, as they are bigger than gas planets. A brown dwarf is formed like a star, by the gravitational concentration of clouds of gas and dust.

Brown dwarfs were first hypothesized by Shiv Kumar in 1963. Shiv Kumar was an American astronomer who at first named them “black dwarfs”. This name was changed to “brown dwarfs” in 1975 by another American astronomer called Jill Tarter. Against the name of brown dwarfs they do not always appear brown. The hottest brown dwarfs can be red or even orange to the human eye and the colder ones appear as magenta or even black.

In 1995 at the University of California discovered an object with lithium. Lithium is an element that stars destroy when hydrogen fusion begins. Later, the object was accepted as the first binary brown dwarf.

The first widely accepted object identified as a brown dwarf was Gliese 229 b. Gliese was identified as a brown dwarf because there was a detection of methane in its spectrum which showed that the object had a surface temperature of less than 1,200K. The object is around 50 Jupiter masses which is inferred by the age of a nearby stellar object and the GL 229 b's low luminosity.



The nearest brown dwarfs are in the Luhman 16 system. The Luhman 16 is a binary brown dwarf system. The Luhman 16 system is quite interesting, because Luhman 16B had the first global map of a brown dwarf. In global maps of brown dwarfs bright regions are the gaps in clouds where it is hotter.

Brown dwarfs start out hot and therefore shines but around ten million years later, after the brown dwarf crushes a rare element called deuterium into helium. After all the deuterium is all gone, the brown dwarf stops shining and, for billions of years, then it will only glow in the light of infrared waves which cannot be seen to the human eye.

An example of a really cold brown dwarf is GLASS-JWST-BD1 which is a type T of a brown dwarf which means its temperature is around 700K to 1,300K. The exact temperature for this dwarf is 600K. This dwarf was found by a quite new telescope called the James Webb Space Telescope. This shows that the Telescope is very powerful in researching the evolution of atmospheres in brown dwarfs.

Surprisingly, no one knows what brown dwarfs really look like in detail because they are so far away, but some artists have drawn concepts of what they think brown dwarfs look like. Because brown dwarfs aren't stars they don't explode like stars and they don't die. Instead, the brown dwarf cools down and slowly becomes a dark ball of cold gas over many billions of years.

# Are Petrol Cars Going Extinct?

**Ridhan Mahanty**

The transport sector is one of the highest producers of greenhouse gas emissions. In fact, transport is responsible for 24% of direct carbon dioxide (CO<sub>2</sub>) emissions due to the burning of fossil fuels, according to the International Energy Agency (IEA), with three-quarters of these emissions being produced by road vehicles. We already know the implications that CO<sub>2</sub> has on global warming. It is imperative that we reduce these gas emissions to curb climate change and limit the rise in temperatures as much as possible. In addition, transport is also part of the problem of air pollution, a danger that, according to WHO data, is responsible for more than seven million premature deaths every year.

The most common reason for people moving to electric cars is that they are greener than petrol or diesel cars but there are other reasons as well. Firstly, you won't have to pay gas money or go to gas pumps because instead of going to a gas station, electric cars can be charged overnight. Secondly, these cars are cheaper and easier to maintain. With fewer parts, no internal combustion engine, no oil, fewer brakes or gears and the costs for maintenance, insurance and repair will be lower.

Additionally, electric cars can function silently, there is no engine in the car so no engine means no noise. The electric motor functions so silently that you need to peek into your instrument panel to check if it is on. Electric vehicles are so silent that manufacturers have to add false sounds to make them safe for pedestrians. Lastly, there are zero tailpipe emissions. You can reduce the environmental impact of charging your vehicle further by choosing renewable energy options for home electricity. What makes an individual hesitant to buy an electric car is that there aren't more charging stations. But the number of charging stations in the U.S. has consistently grown in recent years to more than 46,000 across the country, and that number will only continue to rise as federal, state, and local governments invest more in charging infrastructure.



It is evident that the petrol car may be going the same way as the dodo because major car makers such as Toyota will ditch diesel or petrol vehicles.

The electric vehicle market is booming, according to the latest vehicle sales stats. According to sales statistics, electric cars in the UK have increased by 186% in 2021, and EVs enjoyed another record year in 2021 with more than one in ten new vehicles being electric. As for the present year 2022, 224,919 new electric cars have been sold in the UK. This means new electric vehicles have a 15.1% share of the UK's new car market, in November 2022, 29,372 electric vehicles were registered in the UK. The UAE electric vehicle market, which is currently in its early stages, is projected to grow at an annual rate of 30 per cent between 2022 and 2028. The UAE aims to become carbon neutral by 2050. Under the UAE Vision 2021, the government has promoted EV adoption across the nation. It has converted 20 per cent of the government agency cars to EVs and is aiming for 42,000 on the streets by 2030. Also, The UAE government is also expanding efforts to shift to greener technology, most notably under its Net Zero 2050 Strategic Initiative, which calls for 600 billion dirhams to be invested in clean and renewable energy sources in the next three decades.

In conclusion, by 2040, most cars sold across the world will be electric, according to forecasting by investment bank UBS. Electric cars are the future of automobiles. In fact, it's already underway. Electric vehicles definitely have the potential to reduce emissions and help to address climate change. However, it needs an effort across many different areas to create a sustainable future. Electric vehicles need to be powered by renewable energy sources to be truly effective.

# How to Change your Life by Making your Bed

Ahmed Dogar

There are two sorts of individuals in this world: those who make their bed every morning and those who do not. On both sides of the debate, there are a lot of people who have strong beliefs about the relative benefits of this morning practice.

Some individuals would rather go outside naked without making their bed than leave the home without doing so. Some people do it without even considering why they are doing it, or even being fully aware that they are doing it. On the other hand, some people believe that the need to make one's bed is an indication of excessive conformity or a lack of individuality, and thus consider leaving the bed unmade to be a mark of dignity.

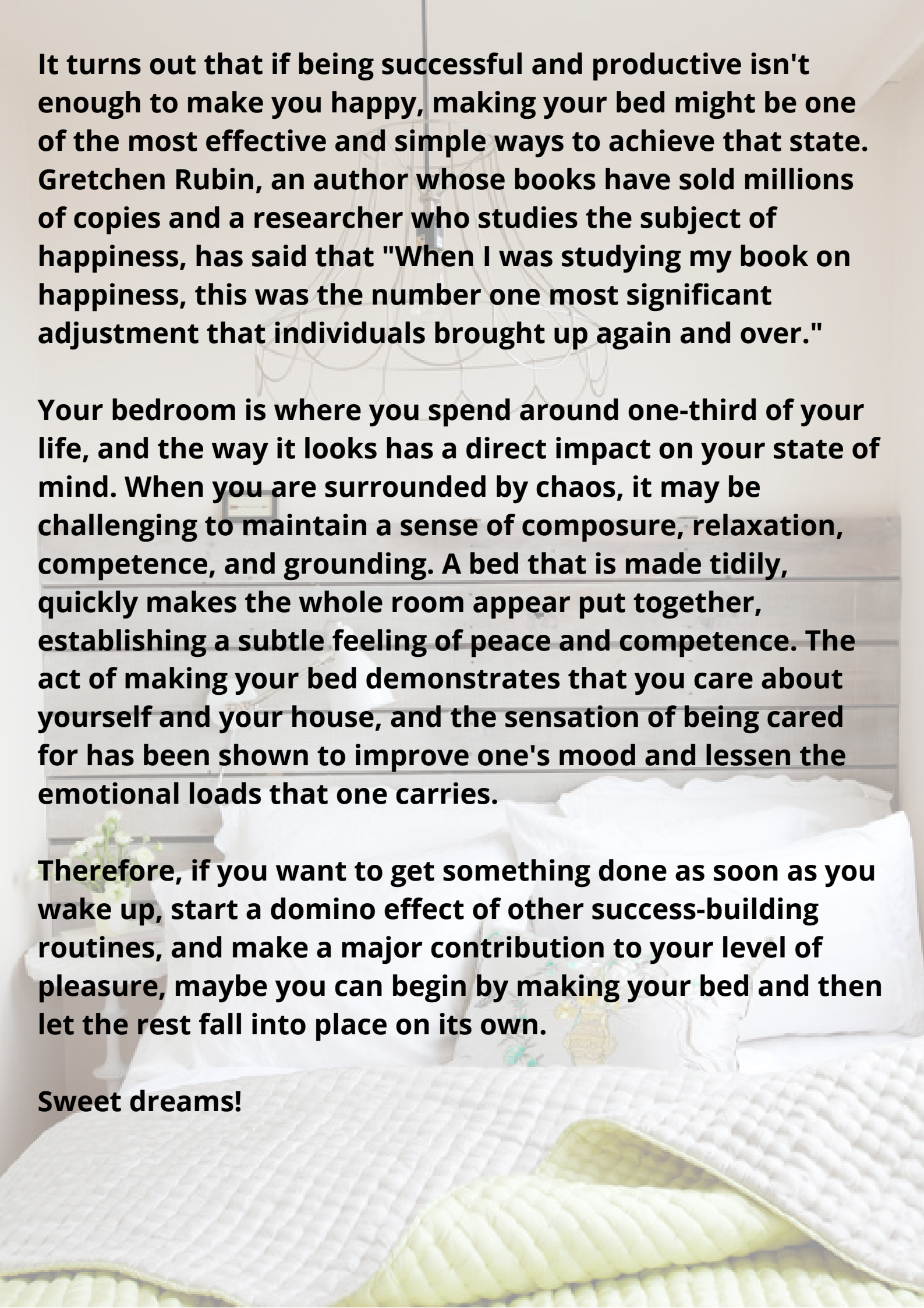
Then there are others who think that it doesn't matter whether you smooth the bedspread or fluff the pillows; the only thing that matters is how neat your room is, regardless of whether or not you do any of those things. Others continue to argue that this practice may make an enormous impact on one's life, especially with regard to mental health.

As part of my "duties" around the home, I start the day by making the bed. Even though this assignment is required of me, I also know that doing it before going to school or starting my day helps me feel better overall. It's hardly rocket science, is it? On the surface, it is quite clear why it is that I, along with many millions of other people, must do this "chore" each day.

However, I was unaware that the routine of making one's bed might very well be the simplest and most effective success habit in the whole world. It's not that it instantly delivers you wealth and fame; rather, the primary benefit is that it kickstarts a domino effect of other effective routines and behaviours.

In his excellent book, *The Power of Habit*, Charles Duhigg makes the observation that "making your bed every morning is connected with improved productivity, a greater feeling of well-being, and superior abilities at being able to keep with a budget." He refers to making your bed as a "keystone habit," which is something that serves as the foundation for a pattern of other positive behaviours. In addition, since it takes place first thing in the morning, your morning ritual of making the bed may help you improve the quality of the choices you make throughout the rest of the day (exercise is another good example of this concept).

During his commencement address at the University of Texas in 2014, Navy Seal William H. McCraven, who commanded the team that conducted the mission that resulted in the death of Osama bin Laden, expressed the same emotion. He provided guidance to graduates, "If you want to make a difference in the world, you should begin by making your own bed. If you get into the habit of making your bed first thing in the morning, you'll be ahead of the game for the day's first duty. It will instil in you a modest feeling of pride, and it will motivate you to do another task, and then another, and then another after that. And by the time the day is up, that one accomplished activity will have multiplied into numerous chores that have been finished."

A bedroom scene with a bed, a lamp, and a vase of flowers. The bed has white pillows and a white blanket with a yellow blanket underneath. A lamp is on a table next to the bed, and a vase with white flowers is on a table in the foreground.

**It turns out that if being successful and productive isn't enough to make you happy, making your bed might be one of the most effective and simple ways to achieve that state. Gretchen Rubin, an author whose books have sold millions of copies and a researcher who studies the subject of happiness, has said that "When I was studying my book on happiness, this was the number one most significant adjustment that individuals brought up again and over."**

**Your bedroom is where you spend around one-third of your life, and the way it looks has a direct impact on your state of mind. When you are surrounded by chaos, it may be challenging to maintain a sense of composure, relaxation, competence, and grounding. A bed that is made tidily, quickly makes the whole room appear put together, establishing a subtle feeling of peace and competence. The act of making your bed demonstrates that you care about yourself and your house, and the sensation of being cared for has been shown to improve one's mood and lessen the emotional loads that one carries.**

**Therefore, if you want to get something done as soon as you wake up, start a domino effect of other success-building routines, and make a major contribution to your level of pleasure, maybe you can begin by making your bed and then let the rest fall into place on its own.**

**Sweet dreams!**

# Sharks: Assumptions vs. Reality

**Aditi Karode**

“Jaws”, “47 metres down” and “The Meg” are only a few of the many monstrous shark movies. In these movies, sharks are portrayed as menacing, vicious, bloodthirsty monsters who are the biggest threats to humankind. But are these seemingly untamed animals what they have been shown to be? This article will dive 47 metres deep into the true nature of sharks, and assess if they are as horrifying as they are projected to be.

## **Assumptions of Sharks**

Before going to watch a new sci-fi thriller like “The Meg”, it's important to remember that it is a work of fiction. Not only is the Megalodon extinct for hundreds of years but it was a creature that preferred feasting on marine life, not humans. Unfortunately, due to the influence of Hollywood, facts like these are often forgotten. Negative music added to the shots of sharks in films plays a trick on the mind of the audience to make them believe that sharks are evil. In reality, however, the sharks aren't probably even doing anything terrifying in the shot.

While movies like these may seem harmless, they actually have an impact on human behaviour and in turn on shark conservation. For example, when “Jaws” was released in 1975, it beckoned decades of increased shark hunting that reduced shark populations by 50% along the Eastern Seaboard of America. Various other shark-related movies have contributed to this continuing practice of hunting and increased the nervousness of people when swimming in the sea.

## Reality of Sharks

Why is it that shark species have become a target of villainous portrayals in movies and television? When we travel back to one of the first shark movies made, scientists hadn't quite uncovered the true behaviour and nature of sharks yet. Back then, sharks had only been spotted hunting other fish or swimming by the shore—however, it was much later when studies were conducted about their habits. Due to a lack of information about the species, it became easy for filmmakers to target a species not well known—and manipulate its portrayal.

When it comes to sharks “hunting humans”, sharks (as a whole) do not actively target humans as prey. Hunting demands a lot of energy, so most larger shark species require a high-fat diet to get enough energy to last long without more hunts. With our thin, bony bodies, humans just don't provide a good enough meal for them.

Shark bites, on the other hand, are a result of sharks' sensory skills. Considering that sharks have terrible eyesight, they use sonar radiation to navigate themselves in the water. Once the vibrations detect a human at times they are unsure if it is prey or something that isn't edible, and since it can't see, it tries to bite it. When it realises that it is not worth a good meal it swims away and has no intention of bothering a human again. Sharks by nature, are very quiet and docile creatures and don't enjoy the idea of “socialising” with others. They do not randomly attack unless it's for a hunt and prefers marine species for their diet.

Ironically though, hunting sharks pose a greater threat to humans than leaving them alive does. Coral reefs are dependent on their residents (fish and certain crabs) and when they feed off the nutrients on the coral it often helps in maintaining the corals. However, when there are too many fish it can cause the corals to die. The interdependence between sharks, fish and coral reefs is imperative as sharks help control fish populations and allows coral reefs to grow and flourish— an essential aspect for human resources.

Nevertheless, there are indeed some dangerous species of sharks too, such as Tiger Sharks or Great Whites, unlike many other species that might attack humans. However, since these sharks are much bigger than the average black or white tip sharks, they live in caves at least 30-40ft underwater and almost never come up to the surface— so it would be almost impossible for a swimmer to even encounter them.

However, I have had the chance to encounter some sharks during my recent vacation in the Maldives. My father and I went scuba diving. I was quite excited about it at first until I noticed that there were many, many sharks that were frequently visiting the beach. I had three days till my dive and I was terrified that I would encounter any sharks underwater and be attacked by one. After many days of procrastination, it was finally time for the dive. I had read some articles about shark attacks in the past which suggested that on the occasion of a shark encounter it was best to stay calm and not do anything- apparently, this would in turn scare the shark and provoke it.

That being said, the first few minutes of the dive went well when I saw thousands of fish and corals which very much mesmerised me. It only lasted till the point when my father next to me pointed to a tall, black figure almost 5-feet away from us. It was exactly what I didn't want to happen. A 10-foot black-tip shark swam to our right, almost circling us before swimming away. I tried to ignore it so that I wouldn't panic and just focused on my breathing. After that, I calmed down and continued swimming deeper, until another five minutes later, another shark came closer- this time right in front of me. It took quite the effort to not scream into my regulator and continue to swim but I closed my eyes and within seconds the shark seemed bored and disappeared into the darkness.

After about 45 mins we went back to the surface and ended the dive. Needless to say, I was happy that I wasn't bitten by a shark but I was rather surprised at how calm and unassuming the sharks were. It was only after getting our gear off did my father confess that actually, there was a third shark too. This one had been spotted by him at the start and it was just 1 foot underneath me- I just couldn't see it because I was looking ahead!

The whole experience actually dismantled my fears based on assumptions about shark behaviour and that they were not ruthless and man-eating animals. Sharks, frankly speaking, just want to be left alone. Humans have bothered and meaninglessly hunted them down for decades now. Many organisations have now taken steps to support shark conservation. However, it is up to everyone to spread the truth about shark behaviour and create awareness for conservation.

# Series Review Ratings

**Abdullah Rehan Razzak**

I will share my review of a few series that I watched this December, not limited to those being released this time. As a matter of fact, none of them were released this December.



## Chainsaw man

Review rating: 7.7/10

Initially, I was quite hyped for the series when it came out in October, and for the most part, it didn't disappoint. The series had a somewhat good plot, following the journey of Denji, who initially starts off as a devil hunter hunting as a

way to repay his father's debt to the yakuza with his pet devil, Pochita, whom after getting betrayed, fuses with the said pet to become a hybrid of a human and a devil, giving him his powers. Yes, a very fantasy setting indeed. Overall, this series is worth watching as it has quite short episodes (12-20 min) and is still enjoyable to watch. But please note that the series does have an age rating of 16+

## Spy x Family

Review rating: 8.4/10

SpyXFamily is probably one the better series released this year, and while it starts off somewhat boring but it is very much enjoyable for all ages. You can watch it with your family or your friends, it doesn't matter. The series follows the story of a spy called Twilight, who on an undercover mission gets married and adopts a child as part of his cover. His wife and daughter have secrets of their own, and all three must strive to keep them together. This series is more of a sitcom compared to chainsaw man but still moves forward with a plot better than most sitcoms I have come across (namely BBT and B99) while also having an age rating of 10+.





## Death Note (ep 1-18)

Review rating: 9.3/10

While Death note lacks the action in Chainsaw Man and the comedy of Spy x Family, it more than makes up for it in terms of plot and has won multiple awards for its story. The series follows the story of an intelligent high school student by the name of Light Yagami who goes on a secret crusade to eliminate criminals from the world after discovering a notebook which has the ability to kill anyone whose name is written into it. This is while the main antagonist, a detective by the name of L, hunts him down in a full-on battle of wits. On the surface, it seems that there isn't much to the plot, something which held me back from watching it for quite some time, but it is so much more, as is the case with another series, Attack on Titan. The series has 37 episodes in total and I haven't finished watching it, hence I am only talking about the first 18.



And that is the end of my review for the month. Have a good watch and I might do the same for next month.

# EDITOR'S NOTE

Hi JC! We at the JC Juice team hope you've enjoyed reading this month's edition. Our writers and editors worked extremely hard to research and discuss relevant and interesting topics for you to enjoy!

If you have any suggestions or topics you would like to see in next month's article - or you would like to write an article yourself - please send us an email at [jcjuice@jumeirahcollege.com](mailto:jcjuice@jumeirahcollege.com) and we will be in touch with you.

- Maryam Fayyaz and Shazene Hussain, Editor-in-Chief and Lead Editor

*Thank you...*

- To Mr Simpson, for all the support and advice!
- To this month's writers: Sharon Jishu, Lyla Khan, Emma Thomas, Joshua Stapley, Ansh Mandal, Ridhan Mahanty, Ahmed Dogar, Aditi Karode, Abdullah Rehan Razzak
- To our editors: Maryam Fayyaz, Shazene Hussain, Hana Rizvi, Ridhan Mahanty, Emma Thomas, Ved Kedia, Namisha Batheja, Angelique Hill

**And lastly and most importantly to our readers, because without you, there would be no magazine.**

*...and Happy New Year!*

**Let's hope 2023 brings us many more great memories with our friends, family and JC!**