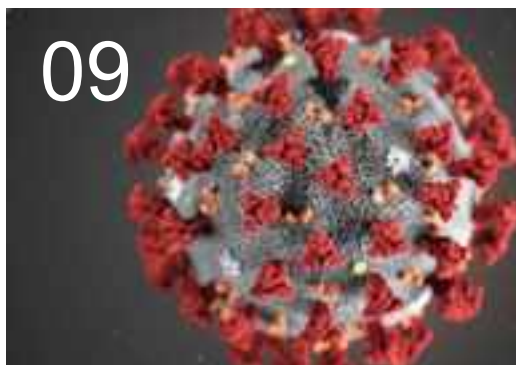


What's Inside?

Catalyst

Lessons in Lockdown

Spring 2021



02 The Editor's Note

03 The Environmental Impact of Lockdown: are we Changing for the Better?

05 What is #BlackLivesMatter?

07 Living in Lockdown

09 Coronavirus: the Biology, the Source, the Targets

12 Vaccinating Against Viruses of the Mind

15 Art Amidst the Pandemic

18 Poetry in Lockdown

19 Creative Writing in Lockdown

21 The Ethics of Lockdown

22 American Election Protests

The Editor's Note

2020 has been an extraordinary year; one we will all remember. The COVID-19 pandemic has shaped the world considerably, from lockdown to politics to the environment.

This academic year has been dramatically disrupted by the pandemic, however FHS was able to grasp the techniques of 'online learning' brilliantly. We have managed to use our skills effectively to get the best out of virtual learning, though undoubtedly everyone still yearns for more face-to-face contact.

As our School community has moved home, we have had the time to reflect on the world we are currently living in.

Whether it be grappling with the struggles presented by lockdown, our reactions and thoughts on George Floyd's murder or the environmental crisis, we have all had to adapt to the new normal.

The valuable lessons we will take away from lockdown will hopefully remain with us, once the world resumes its previous pace. Perhaps lawmakers will change their environmental policies, people will continue to educate themselves on racism and we will appreciate company, education and life in a non-virtual setting.

So this year's academic journal is going to review the effects of lockdown...

TAHIRA FITZHERBERT & CASSIE AINLEY





The environmental impact of lockdown: are we changing for the better?

BY AIMEE MORRIS

Bears are roaming Italian streets. There are clear canals in Venice and goats have taken over Wales. Over the past few months it seems that the worldwide lockdown, forcing people to hide inside, has only brought about positive consequences for the environment. But whilst China's emissions dropped in January, one can see a countless number of PPE masks finding their way to the ocean. Therefore, as our carbon recession ends, to what extent has the lockdown had a positive effect on the planet?

During lockdown, various news outlets did not hesitate to increase morale by releasing images of how animals have reclaimed the streets and how greenhouse gas emissions have sunk. Indeed, China's 40% drop in N₂O and 25% drop in CO₂ emissions in January have most likely saved more people from premature deaths (due to air pollution) than the Coronavirus has taken. Animals have also been bolder in exploring areas normally dominated by large vehicles hurtling down highways. Coyotes have been spotted in San Francisco.

However, whilst these stories made front page news, many are not aware of lockdown's negative impact on wildlife and air pollution. In developing countries such as Tanzania and



Coyotes have recently been spotted on the Golden Gate Bridge in San Francisco. Photograph - Shannon

Kenya, the lack of income from tourism due to COVID-19 has meant that nature reserves have been struggling to pay for rangers. So the practice of illegal poaching has increased significantly. In regard to air pollution, whilst many of us were marvelling at the clear skies and lack of rain, the Trump administration in the United States quietly introduced

The Environmental Impact of Lockdown

the 'Safer Affordable Fuel-Efficient (SAFE) Vehicles Rules', wherein Obama's car pollution standard of reducing pollution by 5% each year was reduced to just 1.5%.

Nevertheless, from this narrative it seems almost obvious that humans retreating indoors for a few months a year is the perfect solution to the climate and environment crisis. However, many experts have warned that these effects will only be temporary if governments expect a return to normal after lockdown.

Rob Jackson, the Chair of the Global Carbon Project has urged that, "We need systemic change in our energy infrastructure, or emissions will roar back later". This is a common pattern that we have seen throughout history with any crisis. During the financial crash of 2008-2009, reduced industrial activity was so significant that emissions dipped by 1.3%. However, as the economy recovered, emissions quickly rose to record-breaking levels in 2010. Julia Pongratz, a professor for Physical Geography at the University of Munich, says that, "There are hints that Coronavirus will act the same way".

This is likely to be the case, as the United States has already taken measures to ensure the fossil fuel industry does not suffer, Construction has resumed on the KXL oil pipeline (between Canada and the US). The US Government's stimulus bill included a \$50 billion bailout for aviation companies, and fossil fuel protesters have been criminalised in three states. Furthermore, in China, emissions have been increasing since mid-March as lockdown was eased.

On a collaborative level, it is now our responsibility to decide if we come out of this pandemic with greener thumbs than before. UN leaders and scientists alike are advocating an urgent public debate on the reintroduction of daily human activity in our society to focus on green jobs and clean energy. The inequalities that have been pointed out as a result of global economic instability from COVID-19 have been so severe that many economists are calling for reform to capitalism itself. Philip Aghion, a professor at the London School of Economics, has joined in on calling for governments to "rethink the versions of capitalism practised on both sides of the Atlantic".



A Kenyan Wildlife Services ranger stands guard by a stack of elephant tusks piled up onto pyres in preparation for a historic destruction of illegal ivory and rhino horn confiscated mostly from poachers in Nairobi's national park.



The pipeline will transport oil from Alberta, Canada, to refineries in the US. The KXL has been controversial for many years due to concerns about its local and global environmental impacts.



Native American Dakota Access pipeline protesters in Chicago in November 2016. Photograph - Tannen Maury/European Pressphoto Agency.



BY HAÏLÉE DOKOLO

The last few months have been filled with a lot of pain and anger, but most of all they've been filled with change: change in people's views and change in people's actions. George Floyd's murder on 25th May has fuelled one of the biggest international movements for racial equality that I have witnessed in my lifetime. Although the fight for racial equality has existed for hundreds of years, the events of May-June 2020 will be written down in history as one of its key moments.

I believe that the main reason so many people reacted to George Floyd's murder was because a very graphic video went viral online, but also because of the conditions of lockdown. During lockdown most people were at home, so they had more time to research why Floyd's murder happened: racism and police brutality. George Floyd's death shed light on the injustices that black people face daily and lockdown allowed people to investigate the roots of these injustices: slavery, redlining, segregation (Jim Crow Laws), systemic racism, police brutality and more. This new understanding of racial prejudice is what I believe has truly pushed this movement forward.

The #BlackLivesMatter movement was founded in 2013 by three women: Alicia Garza, Patrisse Cullors and Opal Tometi. Nowadays, particularly online, this movement has been about teaching people why they should support it. The movement has been about educating people on mistakes that they may have made unintentionally, to teach people to make change by looking at themselves and seeing what they can change in their own lives, and to take accountability for their mistakes and apologise. There have been countless Twitter threads with information about places to donate, petitions to sign, movies to watch, books to read and so much more to help educate everyone on this issue which has been around for so long. These events have indeed exposed the lack of education there is about racism in most situations, and students around the world are protesting for the education system to do better. This peaceful way of protesting and educating others is working. Countless statues of slave owners (and even a whipping post in Delaware) have been taken down across the world.

George Floyd's murderers were arrested (although some were released on bail). Ahmaud Aubrey's murderers were also arrested. Change is happening. Of course, there is



The likeness of Edward Colston, a philanthropist and slave trader, watched over a busy intersection in Bristol for roughly 125 years. Protesters toppled the controversial statue and tossed it into the British city's harbour.

a lot more change necessary, but this is evidence that peaceful protesting and education work, and decades after Martin Luther King Jr's assassination, his principles remain and are still making changes today.

The movement is no longer Black People v White People, it is People v Racism. So much of the information online is about how one can be an ally to the movement, and how one can be 'anti-racist'. This movement is about love. It is about loving your neighbour enough to stand with them through their struggles to uplift their voices, and support them the same way you would want them to support you if you were struggling. Education is at the centre of this new movement and people have started to realise that the only way you can convince someone that something is wrong, is by teaching them why it is wrong. I am proud to be part of this new era, and I hope you are too.



A new sculpture by local artist Marc Quinn, depicting Black Lives Matter protester Jen Reid, stands on the plinth where the Edward Colston statue used to rest in Bristol.

Living in Lockdown

BY MARYAM MIRJAN

2020 has been, to say the least, one of the most uncomfortable years in recent history. Christmas frivolities morphed into a January shadowed by the fear of a Trump propelled US/Iran war. It was backlit by the raging Australian wildfires that had engulfed much of Australia's natural landscape, leaving little behind. All too suddenly a significant part of our planet was thrown into a state of national emergency.

In the case of the wildfires - a fatal pandemic in its own right - Australia was combatting an uncontrollable natural force, and so, amidst the desperate battle against it, there was a unified response. Much like the wildfires, the Coronavirus serves to be a continuation of an uncontrollable blaze that spreads faster than we can manage and affects each life it touches.

Why did politicians hang about? Not a question any of us can easily answer - suffice it to say that the delayed UK government's reaction to the threat of COVID-19 drastically increased the volume and degree of the load placed on the NHS's emergency response system. 'Frontline workers', an 'invasion'. We related the fight against COVID-19 to something the world knows well - a war.



A NHS COVID-19 ward in the first wave peak.



Residents look on as flames burn through bush in Lake Tabourie, Australia, on January 4, 2020. Photo - Brett Hemmings

Overnight the roads cleared, down came the shutters and the nation went into lockdown. We stayed at home, some for weeks, many for months, and the lockdown turned into a waiting game. The government urged the public not to flinch before the virus - so we stayed at home.

Would we have taken so much notice of George Floyd's death had it not been for lockdown? A video was taken at the tragic moment of George Floyd's murder on 25th May - a video which made its way on to each major news channel, the millions of social media posts and countless long overdue conversations amongst innumerable communities. A discussion was sparked around systemic racism, and the very nature of our political institutions were re-evaluated.

This spark ignited a new age of political awareness in relation to racial disparities within our society. Being stuck at home meant we had the time to watch those documentaries and read those articles that assessed and confronted our privilege. Such extended periods at home have been vital for the Black Lives Matter movement's political and social influence. Lockdown forced these uncomfortable realities on us and demanded many of us to acknowledge our privilege and possible engagement in the fight against racism.

Surrounded by our ordinary, fast-paced working life, it would have been very easy and therefore inevitable, to let the movement be a mere social media trend. At the height of lockdown, our almost complete reliance on social media and the internet to keep the world running meant we were continually being provided with resources and accounts of personal experiences surrounding what has indeed been the brutal case for centuries, but these are just the first times they have been recorded. It was social media that mean we saw them when they happened, as they happened.

And so ensued the widest-reaching civil rights protest in history. The suppressed anger of black communities racially

oppressed for hundreds of years erupted in the form of marches, demonstrations, speeches and art in order to fight for their place in their own democratic state.

We all saw and were possibly part of the thousands of protesters fighting against the foundational legislative system of the United States. Oceans of people gathered and flowed through the streets across the world amidst a global pandemic. The unifying love, passion and support that amassed from the protests helped extinguish a feeling of burning helplessness from the communities that were previously denied their voice. This active dismissal of the social-distancing rules was not a demonstration of their carelessness surrounding their health, but a tribute to the severity of the problem they are fighting for. Day after day, the people of America kept showing up, kept protesting for what they deserve, finding their social and political influence in numbers.

Never was the severity of systemic racism in the US so effectively received by nations outside of America. The fact we were at home for such a long time, left to our own devices, meant we were able to shape the societal landscape we wanted to see around us through social media platforms.

This growing awareness around social inequalities finds its way into our very homes, sometimes in the form of family discussions over the dining table. The combination of being held at home with your parents or guardians for extended periods of time and as teenagers, an evolving need for a morally-principled society can potentially make for some pretty uncomfortable conversations.

In the throes of a heated discussion on the topic of racism or privilege, we very quickly see fundamental conflicts of perspective that can occur between generations. Certain sayings, jokes or beliefs have not aged well and it's imperative that they do not have a place in our society. This is where the conflict of interest lies.

The very basis of that cultural environment provided a space for racial profiling, racist jokes and other expressions of racism both subtle and pronounced. In that time they had never been held accountable for saying such things. It wasn't an issue until somebody thinks it was: fortunately, the Zeitgeist caught up with the 21st century and so for us, it has definitely become an issue.

In my experience, there is a fine line to tread between tolerating adverse opinions and accepting them. In the context of a much wider battle against racial inequality in our society investing all of your energy in an emotionally-charged response to each comment someone makes can quite possibly drain your emotional capacity and hinder your efforts outside the household.

It's just so easy to carry the burden of other people's ingrained prejudices especially those of your parents. It's also just as easy to let their views influence and shape your attitude towards them - resentments grow if you do not



detach them as people from the opinions they may have been conditioned to have. The highly restrictive nature of lockdown has most likely triggered frictions between family members, and so being able to have objective conversations without letting their points reflect upon them themselves is the key to keep being able to have healthy conversations where all participants feel safe to express their opinions.

I believe the biggest thing I've learnt from all of lockdown is, as with most things, it's important to pick your battles. Perhaps remind them why it is so vital they adjust their attitude, sense of humour and their use of language so that they can keep in pace with the rapidly-evolving age of political correctness and awareness. Sometimes it is more beneficial just to tolerate what they say but never accept.

Despite drawing out these positives from lockdown, it's impossible to overlook the substantial economic, physical and emotional toll COVID-19 has taken on the world. Ultimately, the harm has undeniably outweighed the good. We cannot forget the detrimental impact it has had to our society, and perhaps we shouldn't try to.

The first six months of 2020 have been so distressing, grievous and taxing that they have forced us to grow. They have made us more resilient and better equipped to cope with whatever the future holds.

Perhaps 2020 hasn't been a failure that we wished never happened, but the most important year of them all.

Coronavirus: the Biology the Source the Targets

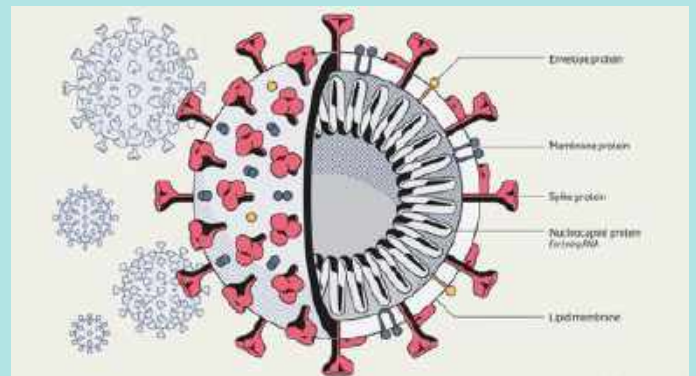


BY CASSIE AINLEY

Considering how much COVID-19 and the pandemic have affected every part of the spectrum socially, economically and politically and the lives it has taken, it seems appropriate to know about the specific biology that caused this damage.

The naming and the definition of COVID-19 are significant as they tell us its structure and therefore how it infects and damages our cells. COVID-19 is actually the name of the disease standing for “2019 novel Coronavirus disease” while the virus’s name is SARS - CoV - 2 meaning “severe acute respiratory syndrome Coronavirus 2”. Viruses and diseases often have different names, for example HIV is the virus while AIDS is the disease. Viruses are named based on their genetic structure, clarifying what the virus is in order to facilitate the development of diagnostic tests, vaccines and medicines. Whilst diseases are named to enable discussion on disease prevention, spread, severity and treatment. The virus got its name SARS-CoV-2 because it is genetically related to the Coronavirus responsible for the SARS outbreak in 2003.

These names actually tell us a lot about the virus and what it can do. Coronaviruses are a family of enveloped RNA viruses that can cause illnesses such as the common cold. SARS (severe acute respiratory syndrome) and MERS (Middle East respiratory syndrome). They can infect amphibians, mammals and birds. The family got its name from ‘corona’ meaning crown in reference to the structure



of the virus, this being spherical with attachment proteins or spike proteins on its surface giving the appearance of a crown.

Viruses can have DNA or RNA. RNA is quite similar to DNA and takes the same role of being used to store the virus’s genetic code. Most viral RNA and DNA is relatively short as it only has to have genes that code for the virus’s parts.

Coronaviruses are all ‘enveloped’ viruses which means they have a lipid envelope with attachment proteins which contains their RNA. This lipid envelope is what allows Coronaviruses to stick to surfaces but it also makes them vulnerable to soap as it dissolves the membrane making the virus non-functional. This is because the envelope has to be strong enough to protect the RNA but weak enough so it can break to infect cells.



Bat guano farms in Soc Trang Province, October 2013. The Indian pangolin is slowly disappearing from Pakistan
Photograph - Ansar Khan / Life Line for Nature Society

It is a point of debate whether viruses are actually alive or not. A requirement to be classified as living is if it is capable of reproduction. Viruses need a host to reproduce which means if they can't do it independently on a cellular level it is questionable if they can tick that box. Viruses reproducing is what hurts us and causes disease. When a virus gets into our body it floats around until it happens to come into contact with a type of cell that has a specific receptor that fits its attachment proteins. That causes it to then break down its lipid envelope and inject its RNA or DNA into the cell. Using enzymes either the cell takes the RNA and using that code produces the protein parts of the virus, or the cell puts the viral DNA into its DNA and then starts producing the viral protein parts as it would any other protein coded in its own DNA. When enough virus parts are produced, the viruses are assembled and burst out of the cell sometimes taking parts of the cell's own membrane to form its own lipid envelope.

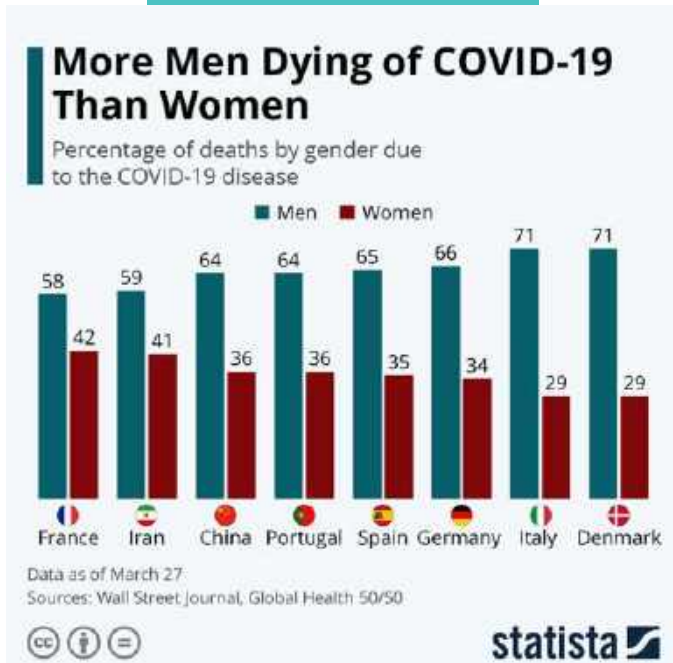
The SARS-CoV-2 virus is an example of a Zoonotic Spillover. Zoonotic diseases are a group of infectious diseases naturally transmitted between animals and humans. The most significant risk for zoonotic disease transmission occurs at the human-animal interface through direct or indirect human exposure to animals, their products (eg meat, milk, eggs) and/or their environments. Zoonotic spillover, defined as the transmission of a pathogen from an animal to a human, is a poorly understood phenomenon that presents a global public health threat. Spillover is a common event once more than two-thirds of human viruses are Zoonotic.

The SARS-CoV-2 virus jumped from bats to an intermediate animal to humans. Bat guano is a common fertilizer and has a natural fungicide. The collection of bat guano is most likely the interface where the virus made its jump. Many experts believe the virus leapt to the pangolin, the most trafficked animal in the world, which was being sold at the Huanan

seafood market in Wuhan City. It is the only mammal to have scales, making it unique, and so its scales and fetuses are in high demand in Asia for traditional Chinese medicine to treat a range of ailments from arthritis to cancer, despite there being no proven medical benefit for their use, while its meat is considered a delicacy in some countries. All eight species are classified as endangered and two of them are critically endangered.

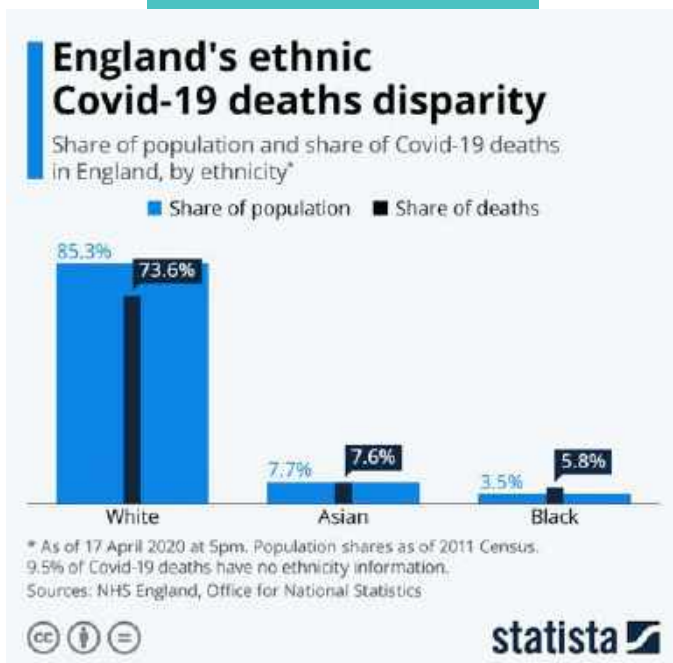
Scientists from the Berlin Institute to Health (BIH), Charité – Universitätsmedizin Berlin and the Thorax Clinic at Heidelberg University Hospital working at the German centre for Lung research (DZL) have been investigating specifically which type of cell in the lungs the virus infects. By analysing a total of nearly 60,000 cells, they found that the virus's spike protein attached to a receptor called ACE2. This receptor is found on progenitor cells in the trachea that develop into ciliated cells. Progenitor cells are cells that are descendants of stem cells of a particular tissue or organ, in this case it is the ciliated cells in the trachea. These cells have hair-like projections that move mucus with dirt, bacteria and irritants up and away from the vulnerable cells in the lungs towards the throat where they are swallowed. The virus kills these progenitor cells so there are fewer ciliated cells. This paves the way for bacteria and dirt into the lungs causing scarring and infection making it harder to breathe as your lungs cannot function properly. Similar to how HIV targets and kills T cells weakening the immune system and causing AIDS, this virus pulls down the lung's defence.

By understanding how the virus infects our cells it can help us to create targeted treatment against the Coronavirus, by protecting the specific cells. It also helps explain why some people are at a higher risk of COVID-19. The study that found ACE2 also noted how the density of ACE2 increases with age and is higher in males compared to females. A review of the sex differential in COVID-19 mortality shows that while both men and women have the same prevalence,



men are at higher risk of death than women, with the number of men who died from COVID-19 being 2.4 times the number of women.

In addition to this, the elderly and people deficient in Vitamin D have a weaker immune system, meaning they are also at higher risk of death. The Scientific Advisory Committee on Nutrition and the National Institute for Health and Care Excellence (NICE) are reviewing the role of Vitamin D in the context of respiratory infections and Coronavirus. This new research, led by Dr Prabowo Raharusuna, looked at 780 people in Indonesia with confirmed COVID-19 infection and their levels of Vitamin D. The study found that the risk of death was highest in people who were older, male and who had pre-existing health conditions, and who also had below normal Vitamin D levels. People were classed as 'Vitamin D deficient' or 'Vitamin D insufficient' and it found those who were 'insufficient' were 13 times more likely to die and those 'deficient' were 19 times more likely to die. Although there are some limitations to this research, the study was based on only Indonesian patients so it may not be comparable to the British population due to confounding variables like lifestyle and climate. As well as this the authors of the study have unknown backgrounds and the validity of the results is in debate due to the name of the hospitals not being mentioned. The ethical/institutional review mentioned that Vitamin D was not routinely checked in Indonesia, making the study questionable.



The body produces Vitamin D from sunlight more slowly if you have darker skin, and looking at a study that analysed the role of Vitamin D in the immune system this could potentially explain why there has been a higher proportion of COVID-19 deaths in BAME communities. Although there is also a socio-economic factor in COVID-19 deaths, the Office of National Statistics found that black males are 4.2 times and black females are 4.3 times more likely to die from COVID-19 compared to white ethnicity males and females. But taking account of disability and other socio-economic factors, COVID-19 deaths for black males and females are reduced to 1.9 times more likely. Similarly, males in the Bangladeshi and Pakistani ethnic group were 1.8 times and females 1.6 times more likely to die.

By looking at the structure, origin and mechanism of SARS-CoV-2 we can gain a better idea of who are the most vulnerable in society and why. With the current development of several vaccines we can see that understanding is the first step in countering and overcoming any obstacle.

VACCINATING AGAINST VIRUSES OF



THE MIND

Segment of an article from *The Psychologist* written by David Robson (<https://thepsychologist.bps.org.uk>)

“There are multiple pandemics sweeping the globe in 2020.

The first, of course, is caused by the COVID-19 virus. But hot on its heels, we have seen conspiracy theories and false information spreading in its wake. There was the idea that the pandemic itself was a hoax, and that it was being spread by the new 5G networks, leading vigilante gangs to attack mobile masts. Then there were the claims of miracle cures – such as the idea that drinking methanol could kill the virus, a belief that caused hundreds of deaths in Iran.

The sources are varied – from misguided health gurus to anti-vaccination campaigners and even foreign governments who may wish to sow discord for political gain – but the total inundation of misinformation may be unlike anything we’ve ever seen before. ‘All the stories I’m seeing suggest that it’s gotten much worse under the current pandemic,’ says Jay Van Bavel, a social

DAVID ROBSON ON PSYCHOLOGICAL EFFORTS TO ACHIEVE ‘HERD IMMUNITY’ AGAINST THE SPREAD OF MISINFORMATION IN PANDEMIC TIMES.

neuroscientist at New York University, who recently co-authored a paper on the ways that behavioural sciences can help with the pandemic response (Van Bavel et al., 2020).

With so much uncertainty around the Coronavirus pandemic already, the misinformation threatens to confuse people’s understanding of the disease and the best ways to protect themselves and their loved ones. It is, Van Bavel says, ‘the perfect recipe for disaster. This is not misinformation about the normal types of political debates. We’re talking about potentially the worst pandemic in 100 years.’

While there is no single panacea, the latest psychological research might help us to stem the spread of false claims using a form of inoculation.

When that strategy is combined with health campaigns that use the cutting-edge psychology of persuasion, some scientists even hope that we may reach a kind of ‘herd immunity’ against misinformation.

Mental antibodies

In the same way that a regular vaccination uses a weakened or inert form of the pathogen to prime the immune system for the real thing, a fake news inoculation requires people to be exposed to the threat in a safe environment (where the claims are easily debunked). This then heightens our awareness of misinformation in the real world – activating so-called ‘mental antibodies’ that help us detect unverified claims in the future.

The concept originated with the American social psychologist, William McGuire, in the 1960s. Under the political tensions of the Cold War, McGuire was concerned about the potential of foreign propaganda to brainwash US citizens, and began to look for ways to combat misinformation. He realised that many people have the knowledge and intelligence to rationally appraise a false claim – if they pay enough attention. But many people simply don't engage those skills, allowing their opinions to be swayed by the propaganda (Pratkanis, 2011).

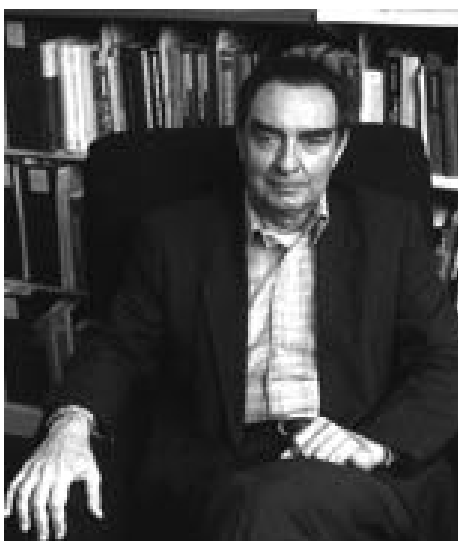
To avoid that outcome, McGuire suspected you needed to make someone aware of their own vulnerability to the lies; only then would they be mentally engaged enough to resist persuasion.

In his initial studies, he examined participants' susceptibility to dubious health claims – like the idea that teeth brushing is bad for dental health. As he'd hoped, initially warning people about the potential threat of misinformation, and then providing them with examples of the fallacious arguments, provided the necessary shock to their system – so that they were more sceptical of the fallacious material at a later date (McGuire et al., 1961; McGuire et al., 1962).

Unfortunately, the idea never really took off until around 50 years later, when a PhD student called Sander Van der Linden came across one of McGuire's papers one day in the library of the London School of Economics.

He says that he was immediately struck by McGuire's prescience. 'He wrote the paper long before the internet, long before we knew that misinformation spreads through a network, in a way that is very analogous to how a virus replicates in infected hosts.' With the spread of misinformation online only increasing, it seemed like the perfect time to resuscitate McGuire's ideas.

His first experiment asked whether an inoculation could stem the spread of false information around global warming. For around a decade, climate change deniers have been attempting to question the scientific consensus with the so-called 'Oregon Petition' – a website



William James McGuire (February 17, 1925 in New York City, New York – December 21, 2007 in New Haven, Connecticut)

that claimed to have the signatures of more than 31,000 American scientists who believed 'there is no scientific evidence that the human release of carbon dioxide will, in the foreseeable future, cause catastrophic heating of the Earth's atmosphere'. In reality, fewer than 1 per cent of the signatories had a background in climate science, and many of the signatures were clearly fabricated. (Charles Darwin and 'Dr' Geri Halliwell are among the signatories.)

The website is surprisingly convincing: around 10 per cent of people change their opinion about the existence of a scientific consensus, having seen the petition – a huge effect for one single piece of misinformation. It's powerful enough to completely 'wipe out' any

To participate in the petition one only needs to mark a check box to show that one has a Ph.D., M.S., or B.S. degree, and then fill in the fields. Unfortunately, that means that anyone can sign the petition, whether they have a degree or not.

benefits from traditional educational campaigns, says Van der Linden, who is now based at the University of Cambridge.

To see if an inoculation might prevent them from being swayed, Van der Linden took a group of participants and offered them one of two warnings before they saw the Oregon Petition. The first was a general message that 'some politically motivated groups use misleading tactics to try to convince the public that there is a lot of disagreement among scientists' – followed by a reiteration of the actual climate science. Not only did it protect against the misinformation; after seeing the petition, belief in the scientific consensus was actually around 6.5 per cent higher than before the intervention.

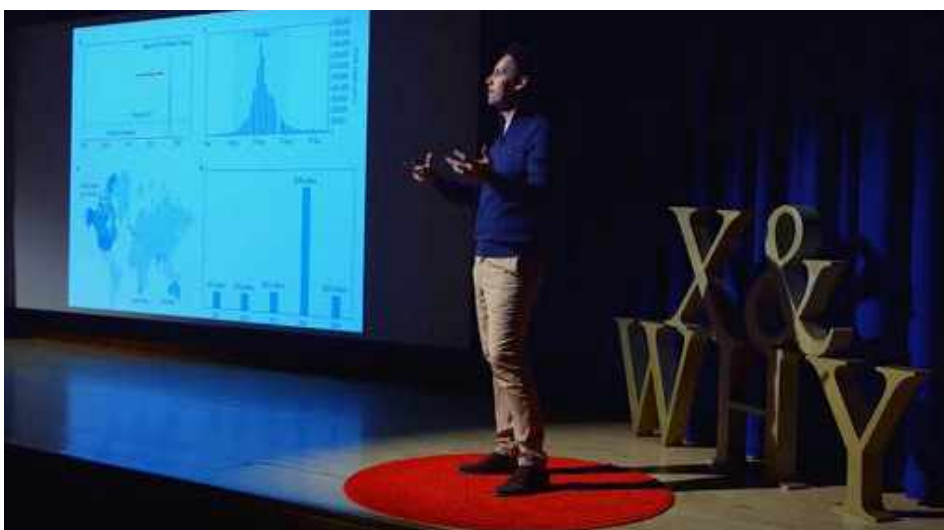
The second form of inoculation was an even more detailed description of the petition itself, and its fabricated signatures. This was even more effective – boosting the acceptance of the scientific consensus by nearly 13 per cent. Both inoculations worked better than a third intervention, which involved arming the participants with the facts about climate change, without a specific warning about potential misinformation on the topic, which had barely any effect (Van der Linden, 2017).

Following the controversies over the US presidential election in 2016, Van der Linden next attempted to protect people against political fake news more generally. In this study, the inoculation was a board game – in which participants were encouraged to create a viral article on a controversial topic like the refugee crisis. Afterwards, they were significantly less likely to be persuaded by actual fake news articles on the same issue, compared to a control group who had not played the game (Rozenbeek et al., 2019a).

Van der Linden's greatest success is an online game (called Bad News) that simulates sites such as Twitter, allowing users to build followers by employing misinformation techniques like impersonating or delegitimising official accounts, appealing to partisan divides, or creating a conspiracy theory (Rozenbeek et al., 2019b). Once again,



The game is played entirely online — players just need a web browser and a feigned lack of conscience before navigating to getbadnews.com



Sander van der Linden, TEDxCambridgeUniversity, *Viral Altruism: How to Spread Human Kindness*

the inoculation worked – and proved to be so popular it has attracted around a million users to date. The UK Foreign Office was quick to note its success and has now translated the game into 15 languages to help combat misinformation worldwide.

Van der Linden is now updating the Bad News game to specifically target the misinformation around COVID-19. It's drawing particular attention to the use of 'fake experts' (without any real qualifications) to question medical advice, for example, which is one of the most common strategies being used at the moment. But Van der Linden hopes that more organisations will take note of the idea of inoculation, to pre-emptively warn people about the strategies that may be used to spread misinformation around the pandemic. 'We're trying

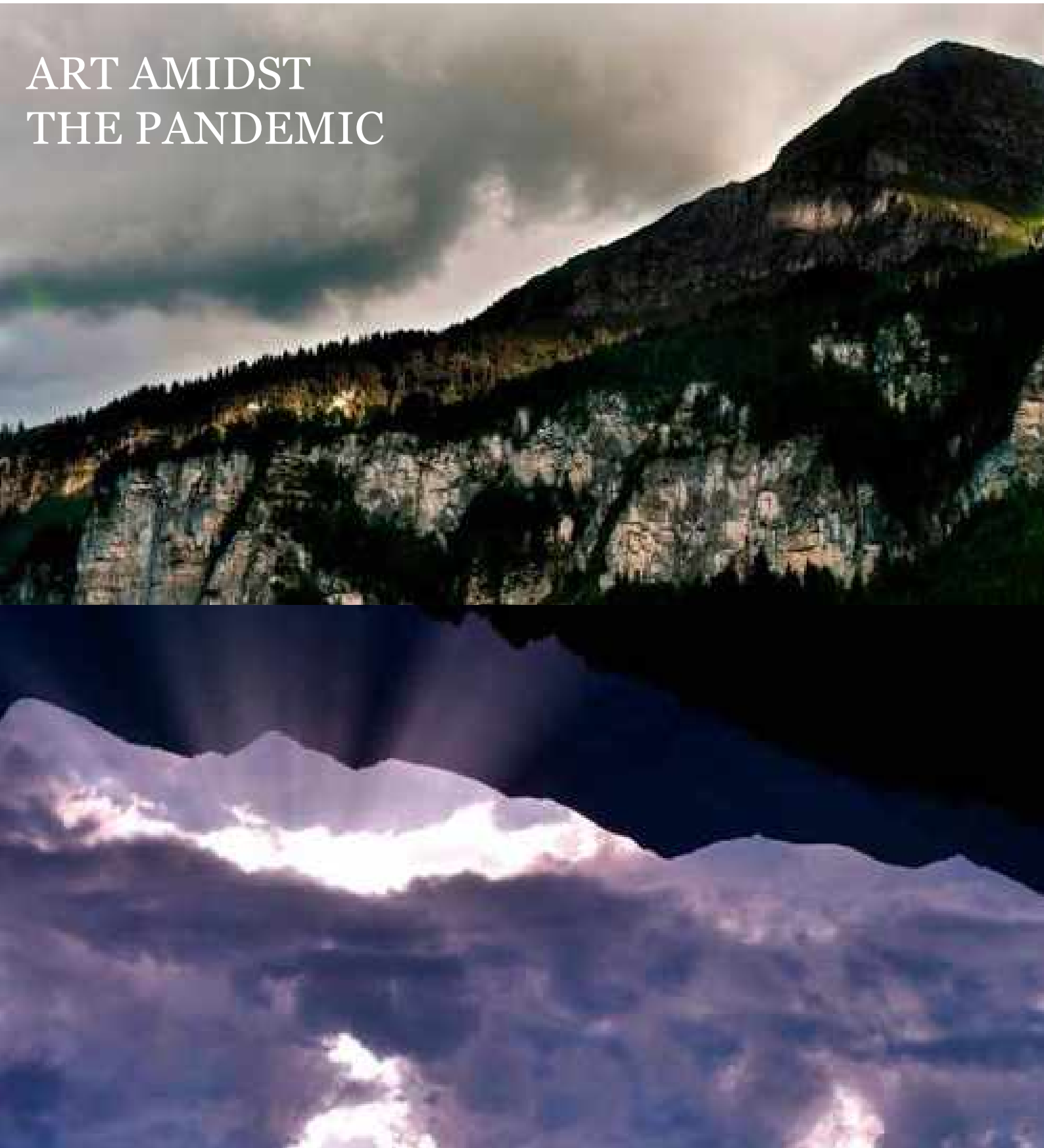
to get the policy conversation going around this idea of pre-bunking rather than debunking.' This will be especially important as we gear up for any potential release of a real COVID-19 vaccine, he says, since we are likely to see an explosion of fake news around its safety and effectiveness.

Research from the University of Regina in Canada suggests that even small nudges can activate our 'mental antibodies'. For a recent pre-print, Gordon Pennycook examined people's tendency to share fake Coronavirus news. As McGuire had first noted, he found that many people sharing the misinformation just weren't questioning its accuracy before deciding to pass it on. Simply asking the participants to rate the reliability of a single headline primed people to think more carefully about

the messages they were reading, and subsequently reduced their willingness to share a host of other fake stories (Pennycook et al, 2020).

Pennycook argues that the companies themselves would need to find the best ways to implement this, but he could see the advantage of occasionally prompting users to rate the accuracy of what they are seeing. 'They could gain information about the stuff that is being spread around their platform, and at the same time, get people to think about the accuracy [of what they are sharing],' he told me."

ART AMIDST THE PANDEMIC



Photographs - Caitlin McGinn, Switzerland mountains



1

1. This piece is a study of light through linear drawing. The picture which inspired this work is filled with contrasts. I intended to reflect the dramatic rays of light in this piece.
2. This figurative drawing was created based on a memory from my trip to the beach this summer. I found the woman's position and sense of style intriguing as a subject for the piece.
3. I was inspired to create this piece by an appreciation for the natural world and wildlife. The fish's vibrant colours reflect the beauty of aquatic life as a whole.

Abigail Haith

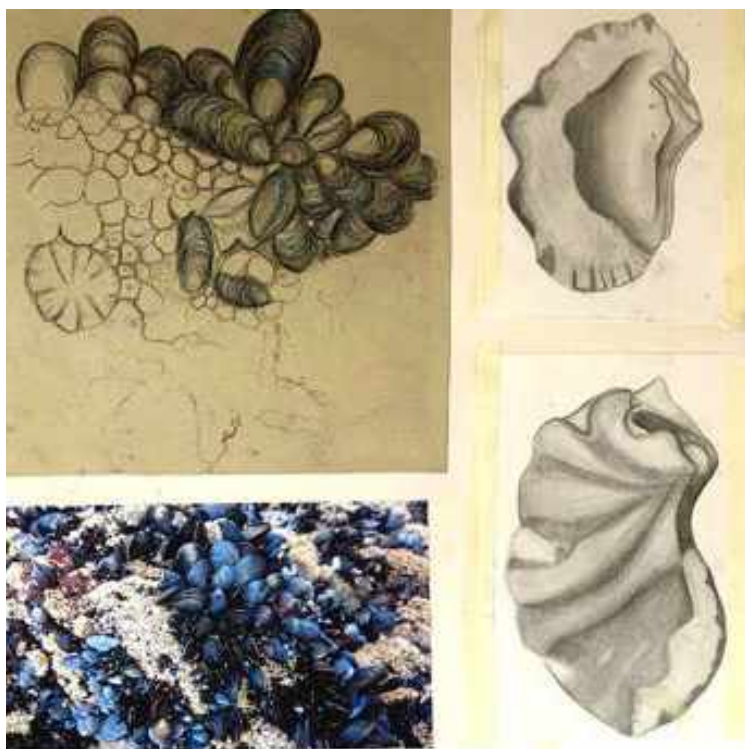


2



3

Abigail Haith



Over lockdown, I have had more time for art than I previously had. I took this time to develop the different styles of art that I enjoy, such as surrealism and realism. In particular I worked on my personal investigation, based on the landscape and architecture of Spain. Here are a few pages of paintings and drawings from my sketchbook, using a variety of different media such as paint, watercolour and colour pencil.

Rosie Walsh

POETRY IN LOCKDOWN

POETRY FROM YEAR 9S
In Lockdown

Things I Will Miss About School

When we are older,
frail and weak
we will all sit down
and reminisce
all of the good times,
bad times,
sad times,
and the happy times,
which we wish
we never took for granted.
We will travel back,
back through our minds,
full of knowledge and experience
to a time and place we will never forget.

By Claudia Capuano

Things I Will Miss About Lockdown

*The air is clean and the roads are empty,
I have time to close my eyes.
There is less pressure, and family's around me.*

*Maybe this was a nice surprise.
But being trapped inside all day,
isn't all good,
It can be quite isolating,
With no one around for you to be understood.*

*The shops and restaurants all are closed,
And we can't go to school.
It's been three months with nothing to do,
And it feels quite cruel.*

*When this is all over,
I may miss the free time.
But I think once I see my friends,
Everything will be fine.*

By Sparkle Seifert



Creative Writing in Lockdown

*Creative writing pieces written during lockdown
that start with "Lockdown has ended"*

Lockdown has ended. There should have been joy at such a time, but there was just silence. It was as if the whole world had been put on mute. Even the news reporters looked stunned to be saying such words, for they had never expected this time to come.

With each household across the country, one grave face turned to another as the realisation of reality crept over them, the silence became a murmur. People slowly moved away from their television screens and towards windows. For the first time in ten long and hard years, they could see other people looking out of their windows as well. The same expressions were on their faces. Disbelief.

Ten years and three months ago, to the day, the lockdown had begun. In those days there was so much freedom. People all over the world travelled to experience new and exciting cultures. In London, tourists flocked to the West End to be transported to a different time and place, where almost anything was possible. Even after travelling all around the world a person could still not be truly happy because people need a place to settle. All that has changed now, all people wanted was to travel and see how the world has changed, when everything they knew had stayed the same.

The memories of all that people had had before, were slowly coming back and people began to feel optimistic for everything that lay ahead.

Excitement took over the feelings of the fear. People felt as though, their lives were finally continuing again after years of being paused. One by one windows opened and old neighbours who had not talked to each other in ten years were catching up.

All the emotions people felt in that moment could not be summed up in words, so people clapped. People clapped for those who had continued working through this time. People clapped for joy. People clapped for freedom. Most of all people clapped because they felt like they were together again.

The whole city, if not whole country, erupted in applause and cheering. The connection that people felt to one another was stronger than it had ever been before. Everyone had been in captivity for ten whole years and this made everyone feel connected.

Everyone had lost someone they loved. Everyone had changed. Everyone was shocked that they could finally leave their house, but everyone was excited for tomorrow to come.

The cheering and applause had grown into laughter, tears and shouts of joy. It was all people could do to keep their distance from one another. Front doors began to open and the cheering and applause continued out onto the street. At first there was tentative walking as people waited for someone to prove that everything they had been told was a lie. It never came. Many people didn't even think twice about stepping out of their house. Soon after, all the houses on streets had been emptied. Everyone was on the street cheering and crying.

Everyone was excited to see what their future held for them, no evening had ever been so joyous for anybody. Freedom had come and with it, unity

Natasha O'Donohoe



Capturing the stillness and simplicity of life at home - photographer Anjana Dev

Lockdown has ended. The radio cracked the news. The internet had crashed and the only station we were able to receive was from several miles away. This was the first time in three weeks that the fresh summer air filled my unused teenage lungs.

For the past few weeks, my day had consisted of eating and sleeping. Time for everything to return to normal. I put my hair in a ponytail and began to walk out the front door which had kept me hostage for what seemed like forever.

As I was walking, my laces were beginning to become untied. The periwinkle lace was starting to fray at the end despite my not having worn them in a very long time. I tied my laces into a double bow, ensuring they would not come loose again, and continued my walk along the beach. Despite our town being small, there was plenty to do and to miss while being locked up. The sun beamed onto my face and it felt almost as if I had brightened up. The ocean was still its original shade of aqua blue, inviting me to go for a dip. As I walked along, the lapping waves soothed me. I watched the horizon and thought of my best friend, who I had not seen or heard from since the phones and internet had glitched. I continued to walk up and down the beach, until the lemon in the sky was beginning to sink so that only half was visible, creating a wash of colours, which reflected on the sea.

As I was on my way home, the thought hit me. Where is everyone? The dark night sky felt like it was falling on me and my head began to spin. People should be celebrating and enjoying the outdoors, it was over. The lockdown had ended. I returned home at a jogging pace, which was a struggle. The houses seemed eerie; mine was the only one illuminated,

waiting for me at the end of the road. I took one last look outside to make sure that this was not a dream and returned inside to the jail.

As soon as I walked in the door, my whole family was there to greet me. My younger sister, Monica, who said she was popping over to a friend's house, looked just as confused as I was. My parents motioned to the dining room table. We never used this room other than for family gatherings or if there was an important issue to discuss. My heart rose into my throat.

"What happened?" I asked as I sat down. I could barely speak the words, as I knew that the news my father was about to impart was not going to be good.

"We're the only ones left." His meek tone made me realise what had happened. Mother burst into tears at just the thought.

"What do you mean?" Monica's inquisitive tone not matching the atmosphere.

"They are all gone." I whispered, trying to hold back tears.

"Who's all gone?"

"My friends, your friends, everyone!" I burst into tears.

This was the only place I had ever called home, and now all that made it special to me seemed to fade. Nothing would ever be the same again.

Hannah Davis

The Ethics of Lockdown

BY ROSIE WALSH AND MARIELLA YOUNGE

On 11th March the WHO confirmed the Coronavirus outbreak to be a pandemic. Across the world nationwide lockdowns ensued in a manner never seen before. For the UK this meant four enduring months of being confined to our homes for all activities barring daily exercise.

The nature and impact of these lockdowns has given rise to much debate. In particular, discussions focus on whether the number of lives lockdown has saved exceeds the resulting economic downturn and deterioration in mental health.

Opponents of lockdown claim that the economic impact of global shutdown is of unjustifiable scale. The UK now faces a sizeable debt of \$2.024 trillion - far higher than the annual value of goods and services produced in the UK. As companies report net losses, redundancies have increased and few job opportunities arise. In many ways, placing future generations under the burden of reconciling a colossal debt and a dry job market is highly unethical.

In addition, the anti-lockdown lobby has often cited freedom concerns. Former Supreme Court Justice Lord Sumption has been a notable voice in this debate. Arguing that the March 2020 Coronavirus Act violated fundamental civil liberties and freedoms to such an extent the UK could be described as a totalitarian state. From their perspective, "it is our business, not the state's, to say what risks we will take with our own health" (Lord Sumption). Instead, they advocate a voluntary lockdown free from state interference whereby individuals have the freedom of choice to stay at home or continue with normal routines in the face of the virus. In the meantime, the controversial concept of 'herd immunity' would be achieved, liberating us all.

Those on the opposite side of the debate emphasised the human cost of voluntary/no lockdowns. Before Johnson imposed the UK wide lockdown, former SAGE adviser Professor Neil Ferguson projected the UK's excess death toll to exceed 500,000.

Freedom is vital to all liberal democratic societies, however it is surely the state's duty to intervene and protect its citizens when human losses of such scale loom. This argument can be linked to the Christian concept of 'the sanctity of life' - a phrase which means that human life must be valued highly as it is God given.

To add to this, the possibility of 'herd immunity' through widespread infection (rather than vaccination) is greatly uncertain. Sweden's top epidemiologist, Andres Tegnell, has reported little evidence of herd immunity despite widespread normality remaining in the country which enforced such a

voluntary lockdown. Instead, Sweden has suffered a winter spike in the infection rate and high death toll for such a sparsely populated country (as of November, reported as having the 14th worst death rate).

The libertarian nation has succumbed to moderate measures such as a 'rule of 8' for the hospitality industry and the banning of alcohol sales after 10.00 pm. This shows evidence that voluntary measures would have been insufficient to quell the UK pandemic and only resulted in the need for a lockdown further down the line.

However, the adverse impact of nationwide confinement on the mental health crisis must not be ignored. Without social interaction and with such high levels of future insecurity, mental health has deteriorated across the nation - particularly amongst the youth. So much so that the UK's suicide rate increased by 200 % during the spring months (report taken from the Community Development and Health Network).

The government's approach of doing "whatever it takes to defeat Coronavirus" has failed to account for other illness it has perpetuated. Unlike Coronavirus, mental illness is a long-term issue that can rarely be solved in the short term. Consequently, it could be maintained that lockdown was unethical.

In spite of such arguments, it must be highlighted that the 'lives saved from lockdown versus socio-economic damage inflicted by lockdown' equation is not a simple matter of substitution. COVID-19 is a virus previously unseen, and in many ways we still know little about it.

Government action was in response to an emergency in a high-pressure environment with the primary motive of protection of the lives of its citizens. As successful vaccine results are recorded, perhaps society should shift its focus onto the recovery from Coronavirus, rather than dwelling on past actions which cannot be reversed.

Election protests in front of the American Embassy

BY SELIN AKDEMIR

ONE OF SELIN AKDEMIR'S ARTICLES
POSTED ON *THE YOUNG JOURNALIST*

Since its opening in December 2017, the United States Embassy, situated in Nine Elms, London, has established itself as a gathering point for protesters. It attracted thousands of people as part of the Black Lives Matter movement in the summer of 2020, and recently witnessed protests against the extradition of Julian Assange. It was therefore not a coincidence that on the week of the 59th United States Presidential Election, protesters gathered multiple times throughout the week.

The first demonstration was on Wednesday, 4th October. Around 15 people arrived, bringing with them a loudspeaker and multiple banners. For around three hours from 6.30 pm onwards, they protested against President Donald Trump, threatening to return if he won. They accused him of spreading racist ideas, as well as causing violence across the world.

On Friday 6th October, after the election results were announced, protesters gathered in front of the embassy to celebrate Joe Biden's victory. Around ten protesters gathered and stayed from 6.00 pm - 8.00 pm. Most of the participants cheered and shouted Joe Biden's name. At the same time, two of the protesters set off fireworks on the other side of the embassy.

During both protests, Metropolitan Police officers and police vans were present in case the protests grew in size or became violent. They warned local residents that they might have to close Nine Elms Lane, "should there be higher than anticipated numbers in attendance". However, the number of protesters remained relatively small on both occasions and there were no serious issues.



Demonstration in front of the United States Embassy