A detailed microscopic image of plant tissue, likely a cross-section of a stem or root. The cells are stained with a variety of colors, including shades of blue, purple, pink, and yellow. The cells are arranged in a regular, grid-like pattern, with larger, more prominent cells interspersed among smaller ones. The overall appearance is that of a complex, multi-layered biological structure.

T
H
E

G
A
L
L
E
Y

Winter 2021

From the Editor-in-Chief...

In my last Features editorial, during the second lockdown, I wrote with cautious optimism that there was light at the end of the tunnel. Whilst I don't want to suggest that the world has fully made it out of this Covid-19 tunnel (or that there aren't other tunnels we currently find ourselves in, particularly in relation to climate change and societal equality), I think it's fair to say that the end is nearer than before. And amidst the darkness of 2021, there have been moments of positivity, moments of light: for me this ranges from big things such as volunteering at a kids summer camp in Chichester for my Gold DofE residential and going to my first university debating competition since Form III, to smaller (but not any less significant) moments like funny conversations during classes and being able to hug friends again – the sort of stuff that can't quite be replicated to the same effect online. At time of writing, I'm eagerly anticipating the start of the Christmas dance season: there's no better way to make up for no dance last year than going to every year group's dance and performing to 'YMCA' with the rest of the Top Six, plus Form VI will have a special combined dinner and dance.



Here's another light for which I'm grateful: being able to present to you, as Editor-in-Chief, Edition 40 of *The Galley* – now returned to the physical form! As ever, the pages that follow are filled with impressive articles and photography by some of Dollar's finest writers and photographers. Perceptive analyses of current affairs in News & Politics, thought-provoking opinion pieces in Views, enlightening stories in Features, fascinating articles in Science, imaginative poems and photography in Creative, insightful music and film reviews in Entertainment, informative articles in Sports... you're most definitely in for a treat!

Thank you to the section editors – Daniel, Anya, Izzy, Julia, Brishti, Olivia, and Isabella – for their fantastic work putting together their sections, amongst the busyness of this term (UCAS applications, dissertations, prelims and so on...). And thank you to Ms Abel for her unending support and encouragement. As she goes on maternity leave at the end of this term, on behalf of the editorial team, I would like to wish her and her family all the best as they welcome their new baby into the world.

For me, a lot of this year has felt like waiting – waiting for lockdown to be over, waiting for the “non-exam exams” to happen and then be over, waiting for summer to arrive, you get the idea. Now it feels like I'm actually living life again – and for that I'm so glad and grateful. I really hope that 2022 will be a good year for us all, although to be realistic it'll likely be another turbulent year with new challenges. This shouldn't dampen our spirits though – we should enjoy every moment as they happen, and continue to spread light and positivity in our daily lives.

In the words of Natalie Yeung (FIII) in her article in Views: “however ironic, live laugh and love may just be the things a normal human should concern themselves with.” I agree – ironically, of course. Live every moment, laugh every day, love beyond words... and enjoy reading *The Galley*!

Amanda Amaeshi (FVI)

***Front cover photography by Annabelle Clokie (FV)**

News and Politics

Welcome to this edition's News and Politics section of *The Galley*.

Finlay Clark offers a dissection of the problems facing Labour, as well as the thorough, inside story of what has gone so badly wrong at GB News. Ben Morrell insightfully breaks down some of the impacts of Brexit, and Logan Moss explores the journey from 1980s Soviet foreign policy to the US' surrender of Afghanistan to the Taliban. Finally, in her article which (at time of writing) has been shortlisted for The Guardian's Young Hugo Award 2021, Amanda Amaeshi makes the case for why representation in politics, whilst good, must not be used as the sole indicator of progress.

Whatever takes your fancy, I hope you become inspired to delve deeper into the world around you and investigate the very real political changes which, in one way or another, affect us all. Some issues may not at first seem political - but as George Orwell once said: “All issues are political issues”.

Happy reading!



Daniel Ferguson (FVI)
News & Politics Editor

What's Gone Wrong for Labour?

Finlay Clark (FV)

When Keir Starmer proclaimed "Labour are Back" in the aftermath of a recent by-election in the Northern constituency of Batley & Spen, there were certainly a fair share of eyebrows raised in surprise. The result should certainly come as a huge relief for Starmer, who was under an increased amount of pressure following a recent spell of disappointing election defeats in areas such as Hartlepool. Many predicted before this by-election that Batley & Spen, which has been one of the many parts of Labour's 'Red Wall' in the North for nearly 25 years, would ultimately flip to the Conservatives, like many other places in the North during the 2019 General Election. Even though Starmer and the Labour Party would consider the 332 vote margin a victory, many onlookers would be unanimous in agreeing that the result in Batley & Spen showed just how feeble Labour's chances are in showing electoral dominance. The 'red wall' in the North used to be the Parties fortress of electoral dominance in the past; however, recent Election results appear to validate Labour's failure to drum up support from working-class constituencies in the North, the key group of voters which have defined the core values of Labour in the past.

While the Labour Party has had issues of keeping political relevance in the past, there is no doubt that during the past couple of years Labour have looked rather toothless. This has been particularly exemplified during the past year under the leadership of Keir Starmer. Many have cited a number of reasons why Starmer's era has proved to be rather ineffectual. One of them that many have agreed on is that they have failed to hold the Government to account throughout Keir Starmer's tenure as leader. Throughout the Pandemic, Labour have failed to pounce on the many failings of the current Conservative Government. Whether that be the failure to lockdown as early as January 2020, the numerous shortcomings over PPE or the failure to sack Matt Hancock as soon as possible. When a clear and easy opportunity to hold the Government to account has been presented, the Labour Party has struggled to provide a voice to those upset with the administration's handling of the pandemic. Labour have also failed in proposing a clear and rational alternative to the current regime, something which shouldn't be tough due to the many failures of the Government regarding their handling of the pandemic. The problem here lies with not just the party, but Starmer himself. Many view him as weak, frail and unlikeable. According to a recent YouGov Poll, over 40% of UK adults view Starmer as weak and just 12% view him as a strong leader. If Labour want to claw back their popularity and reputation, then a change of leadership must be considered.

Another problem that the Labour Party has experienced recently is its public image and, in particular, their struggle to reclaim working-class voters. For around the past 10 years, the Labour Party has radically changed their image. Under the leadership of people like Miliband and Corbyn the party has recently favoured going down the more socially liberal

path, alienating Labour's core working-class base. Some would say that the current image is more representative of the upper middle-class than the working class, with there being no doubt that Jeremy Corbyn had a part to play in this. Under the leadership of Corbyn, Labour policies and electoral strategy changed. Corbyn helped to move Labour more towards the left-side of politics, with policy becoming far more progressive than it used to be. Corbyn's pro-remain stance during the Brexit vote has also helped to further distance the relationship between Labour MP's and the 'leave-voting' working-class base of the party.

While it is true that the radical change of the Labour Party's image and values is a pertinent explanation for the party's recent waning of electoral superiority, there is no doubt that the EU Referendum has helped to contribute towards this. Working-class voters in the North grew attracted to the idea of Brexit. After years of poverty and destitution, many grew tired of the way that the ruling political establishment had treated them. The Leave Campaign realised this and capitalised, telling working-class people that the EU was the source of all their troubles and that a vote to leave was the perfect way to get back at the ruling class who had been their source of burden and hardship.

The political wing of the Labour Party sought a different opinion. Many Labour MPs were sceptical of the prospect of independence from the EU and overwhelmingly came out in favour of remain, even though their Leader at-the-time (Jeremy Corbyn) gained a reputation for constantly changing his view on the issue. Out of Labour's 229 MPs at the time of the vote, only 10 declared their support for the Leave campaign. While the party's pro-remain stance certainly helped to attract more moderate and middle-class voters, it created division between the working-class, mostly through clever marketing and campaigning by Dominic Cummings and the Leave Campaign. Northern-voters were told that the Labour Party were the political establishment, the ones that had caused poverty and turmoil in their towns and villages. Due to the party's pro-remain stance, they were the ones that sought to destroy their idea of prosperity and freedom away from the EU. It is this which has significantly helped to cause further conflict to the present day.

There's no doubt that Labour is a party that is currently in slow transition. From being the champion of mining towns and industry to the party of the middle-class, the Labour of today has become considerably different from the party of old. In the present, Labour are floundering. Their failure to hold the Government to account when given so many opportunities to do so, particularly in a time where so many have been crying out for someone to do so, certainly hasn't helped. Keir Starmer's time as leader has proved rather rocky, with only 22% of voters believing that Starmer is doing well as leader according to a recent YouGov poll. If Labour stand any chance of reclaiming electoral glory, they need to go back to basics: reconnect with the working-class and actually speak to them instead of constantly ignoring their interests. At the moment, the Tories hold power over the British Electorate with a vice-like grip and if the Labour Party don't apply the correct steps to catch up, then we may see UK politics becoming more one-sided in the near future.

How Will Brexit Affect the Way We Live?

Ben Morrell (FV)

In 2016 the UK was divided by one crucial decision: 'in' or 'out'. The EU referendum was held with the country divided between leaving or staying in the European Union. This meant that if the UK left the EU, it would leave the free-trade zone - an area that allowed for trade without the intervention of customs authorities - that membership provided. By leaving the zone, trading with countries inside it would be more difficult. On the 23rd of June the vote was held: 52% to 48% in favour of leaving. This referendum created Brexit, the act of the UK leaving the EU. So how will Brexit affect British economic prospects?

A report released by the Institute for Government provides a prediction of the long-term effects that Brexit will have on our GDP, which is the measurement of national income growth and is calculated by adding the total value of the output of goods in the country together over the space of a year. The report shows us that GDP is expected to decrease and drop into the negative in most cases.

The report also went into greater detail about which industries will be particularly affected: "Sectors such as clothing manufacturing, and high-tech industries such as aerospace, will be heavily affected by Brexit. Meanwhile, some sectors such as agriculture and food processing could benefit from any new trade barriers that arise between the UK and the EU." This means that because of our reliance on imports, highly technology-based industries will suffer from the increased import tax, whereas industries where we export will gain profit from the higher tariffs that could be placed. Overall, it means that government spending is likely to increase and, with it, the budget deficit will also increase.

The Institute also looked at the number and diversity of workers - the diversity being the geographical mobility of workers, where they are able to move and change locations; e.g. moving from London to Glasgow for work, and occupational mobility, the ability to change jobs easily; e.g. changing from a chef in a restaurant to a caterer for birthday parties. The Institute said this, "The quantity and quality of available labour depends not only on how many people are born in the UK, but also how many migrants come to the country to work. As a member of the EU, the UK is limited in its ability to prevent nationals of other EU member states from coming to the country to work, if they have a job to go to in the UK." This means that as a member of the EU the UK has little control over the amount of immigration but because of immigration more jobs were made and more tax was paid by individuals and firms. Therefore, one of the changes that is likely to happen because of Brexit is immigration laws may be changed to be more restrictive, reducing employment and causing economic growth to slow or even decline.

The report also goes into detail about how trade will be affected: "Manufacturing accounts for 10% of UK economic

output, 8% of jobs and 44% of UK exports. In 2017, 48% of all UK goods exports went to the EU. More than half (54%) of all goods imported to the UK came from the EU." This means that we are an import reliant economy and the free trade zone that the EU provided us allowed us to accommodate that spending, but now that trade costs are higher our spending will go up and the budget deficit will soon follow.

The BBC released an article titled "How will Brexit affect Scottish exports?" James Withers said that "80% of all the food we sell out of Scotland into international markets goes to Europe, so we are hugely reliant on it and ongoing access to that market is going to be critical." This means that decreased exports to Europe could potentially ruin the food industry as we cannot consume all the food that is created by the industry. This leads to a surplus in supply which causes lower prices, lower inflation and lower economic growth.

The Office for National Statistics released an article titled "What's changed since the Brexit vote?" which went over the statistics that have changed since the vote in 2016. The article showed a positive change in CPIH inflation, which is the general increase of prices with added housing costs; the rate of inflation was 0.8% in June of 2016 when the vote was held whereas in November of 2018, when this article was published, the rate of inflation that month was 2.2%. Arguably, this is a positive impact of Brexit - rising inflation means that individuals' spending will go up, which is good for the economy.

In conclusion, with the rising import taxes that will come from Brexit and leaving the EU, high-tech industries will suffer, having less materials at a higher price because of tariffs and other trade barriers. On the other hand, we could improve our food industry as we may now also put-up trade barriers, which would allow speciality items such as Scotch whisky to prosper even more. While employment and GDP have gone down and are expected to go down even further, during 2016-2018 the rate of inflation defied expectations and rose above previous years stats, which could lower our budget deficit in the long term.

While there are many negative effects of Brexit, some of which we are already seeing, there is also opportunity for growth and evolution: becoming less reliant on imports and becoming more specialized in the global market and, overall, becoming a more independent nation again. To combat the decrease in diversity of workers I believe that the UK should specialise more in agriculture and food production as those are currently our biggest exports. Furthermore, because we left the Free-Trade-Zone of the EU, we can put tariffs and trade barriers on all imports and exports, which would allow us to combat the other EU countries' tariffs and trade barriers and minimise the increase in the budget deficit.

Afghanistan: The Perpetual Conflict

Logan Moss (FIII)

Afghanistan. Though much could be said about its culture, geography, and demography, many, understandably, find its only distinguishing quality to be its seemingly never-ending string of conflicts. Though the recent takeover may be seismic both globally and in the Middle East, it only makes up part of what we know to be the war in Afghanistan. To develop a better understanding of the nation's current situation, it is imperative that we delve into and examine the conflict's past, stretching back to the Cold War.

After already facing a coup 5 years prior, in 1978 Afghanistan fell victim to the Saur Revolution, where the nation's government was replaced with a secular, socialist regime, led by the People's Democratic Party of Afghanistan. However, this new system did not find itself receiving substantial amounts of public support or indeed praise. Their abolition of arranged marriages and reforms regarding the ownership of land, proved to disrupt the traditional social structure and stoked the fires of opposition.

Unfortunately for the oppressors, they found themselves confronted by internal struggles, leading to the deposition of leader Nur Muhammad Taraki at the hands of Hafizullah Amin, who himself went on to take the top spot. As was a custom at the time, the USSR was not keen on seeing the collapse or general instability of a fellow communist nation, and so decided to invade, with the objective of removing Amin. This invasion (as did most military action of the time) caused the Cold War to escalate, prompting the US, China, Saudi Arabia, and Pakistan, united by their common enemy (the Soviets), to support the Afghanistan's often religiously inspired rebel groups. These, known collectively as the mujahideen, managed to control large swathes of the Afghan countryside, whereas the government held consolidated dominance of the cities.



The rebels benefitted from the support of the CIA and Pakistan's ISI, who provided foreign influence in the conflict. The war, rather interestingly, also managed to inspire so called 'Afghan Arabs' (Arabian volunteers) to fight, one of whom happened to be the infamous Osama bin Laden.

Eventually in May of 1989, the USSR withdrew from Afghanistan. Despite the country's regime attempting to cling on to power, the dissolution of the Soviet Union (and in turn collapse of aid) made the fight much easier and more straightforward for the mujahideen, with their path to victory in sight. In April of that year, the fighters captured Kabul, founding the Islamic State of Afghanistan.



However, this new Islamic State did not find itself undergoing a long-awaited period of peace, with its new government losing the support of some mujahideen groups. This level of infighting and division caused the nation, and particularly its rural countryside, to descend into complete instability. This saw a group of Islamic fighters, known as the Taliban, burst onto the scene. They managed to capture Kabul by 1996, controlling most of the country's territory, the rest of which was in the hands of the Northern Alliance - a coalition of mujahideen fighters.

It was in 2001, where up until this time the Taliban had failed to expand on its previous situation, that the entire future of the nation and the region surrounding it would change. On the 11th of September that year, the World Trade Centre in New York City, as well as the Pentagon in Washington D.C. were attacked by hijacked aircrafts. Another plane, on route to D.C., was reclaimed by the passengers, but tragically crashed into a field in Pennsylvania. The event, known now as '9/11', was one of the most well-known and devastating terrorist attacks endured by the USA. One of many actions taken by the US in the event's aftermath was to demand that Afghanistan extradite Osama bin Laden, leader of the act's perpetrators, al-Qaeda (which happened to have links to the Taliban itself). Afghanistan's refusal to perform such a task resulted in the US, with assistance from the Northern Alliance, launching military action against the Taliban and removing them from power in December of that year. After being taken care of by a transitional government, a new republic was established. Unfortunately, the road from that point onwards was turbulent to say the least, with the new administration having to deal with the resurgence of the aggrieved and re-grouped Taliban.

Although the US was joined at this point by fellow NATO allies and a new Afghan government, destructive and violent attacks from Taliban forces continued. In 2009, newly elected President Barack Obama sought to introduce a "troop surge", which led 17,000 more troops into Afghanistan. This coupled with a change of general (and in turn a military strategy) proved to be an attempt to fulfil Obama's pledge of fixing what was in many people's eyes a fluctuating war effort. However, after a leaked government report concluded that the war could be lost within a single year without increased troop presence, Obama deployed 30,000 more soldiers into Afghanistan. It was also just after this time that the US announced they had successfully killed Osama bin Laden, who had been hiding in Pakistan.

By 2014, both the US and NATO formally ceased their combat mission; however, they still left around 13,000 troops there to assist the Afghan forces. An official withdrawal from the nation began in 2020 and ended this year, marking the end of the war itself. However, as we all know, a strong resurgence of Taliban fighters capitalised on an exit that was widely criticised and often branded as poorly executed. The fighters captured district after district as foreign forces fled, with Kabul being captured far before officially released US estimates.

The war saw the deaths of countless military personnel, civilians, and journalists to name a few. With the Taliban back in power and Afghanistan in almost the same position as it was 20 years ago, many are asking themselves a simple question. What was it all for?



The Inside Story of GB News

Finlay Clark (FV)

As of a few weeks ago, Andrew Neil is no longer at GB News. The veteran broadcaster and journalist who spent 25 years working at the BBC announced that he would be stepping down as both chairman and lead presenter of GB News, nearly 3 months after it had first launched nationally, with many citing the personal issues that Neil had with the channel as the reason for his departure. It appears that Neil's departure exemplifies the growing problems within GB News, which has been plagued with countless gaffes and controversies coupled with floundering TV ratings which are pushing the News Channel towards irrelevancy. Many have tried to find out the root cause of this mess, wondering how a Channel which had ambitions of competing with the top dogs at the BBC and Sky is now associated with stagnation, mediocrity and uncertainty.



The idea of a right-leaning news channel based in the UK is one that's been discussed for decades, with the rise of right-wing alternative media in the US used as an example. One such network was Fox News. Owned by the news tycoon and multi-millionaire Rupert Murdoch, Fox News was a success in terms of ratings. According to data compiled by Nielsen, Fox News had 94 of the 100 most watched cable telecasts in the US in August 2021, with their prime-time show Tucker Carlson Tonight averaging a total of around 3.3 million viewers, making it the most watched cable news programme in the US. This attracted a lot of attention from producers in the UK, who were eager to replicate Fox News' success. Given the fact that Fox News' owner Rupert Murdoch already owns newspapers such as the Sun and the Times, it seemed like the right move to make.

GB News was officially announced at the back-end of 2020. Like Fox News, GB News would adopt a centre-right political stance and act as a way of reaching out to those who felt underrepresented and mistreated by the media. Its first decision was to make Andrew Neil its chairman and front broadcaster. Neil, who recently left his job at the BBC after leading coverage of the 2020 Presidential Election, would become the face of GB News. He announced that the channel would "champion robust, balanced debate and a range of perspectives on issues that affect everyone in the UK, not just those living in the London area". Neil's statement helps to show the image in which GB News

chose to present itself, acting as an almost superhero-like figure which came to the rescue of the masses of British people largely ignored by the UK Media. The channel had lofty ambitions, with it being hyped up by the Murdoch-owned media as a potential rival to the giants at the BBC and Sky. These ambitions were exemplified by who they hired to present on the channel. Modelling after Fox News, GB News would not provide rolling news but instead divide up each day into individual programmes. These programmes would be presented by the likes of the former editor of the Sun Dan Wootton, former ITV presenter Alistair Stewart and Neil himself, who would occupy the prime-time slot of 8pm. These presenters were experienced and had years of broadcasting already under their belts collectively, which gave a message to the broadcasting landscape at the time that GB News meant business and wouldn't become a pushover.

Following on from a brief period in no-man's land where there was uncertainty over whether GB News would actually be given the green-light, a launch date was finally announced to the public. Airing for the first time on 13th June 2021 at 8:00pm, it was billed as a special occasion with a lot of expectation and weight behind it. The channel was expected to run 24 hours a day, with Andrew Neil's programme in particular expected to produce roughly 6,500 hours of journalism on its own. Some called this ambitious for a channel which had only been conceived of as late as the end of 2019. The public were told that GB News was to stay and to rub shoulders with the titans of the news world.

These expectations proved to be too much for the News Channel upon its launch day. Debuting to endless technical issues upon its launch, it was subject to ridicule and mockery on social media. Hampered by lockdown restrictions and lack of staff, the show experienced a multitude of problems within the opening hour. Likely due to technological faults, the show experienced serious problems with the sound which resulted in microphones dropping out and a large echo to be developed across the unfinished studio. Ideological opponents were ready to amplify these technical mistakes to further mock GB News, with prank calls and text messages becoming frequent on the Channel. This helped to set the precedent for things to come.



There were some positive signs of growth after the numerous gaffes of GB News' debut. The hype surrounding the channel at the time helped to catapult Andrew Neil's launch show to an average audience of around 262,000 according to Enders Ratings, beating

both the BBC News channel and Sky News. GB News had also brought on numerous powerful political figures of the UK at the time, which helped to display the influence that GB News had in its ability to interview the most important figures in the political world. Priti Patel, the current Home Secretary, gave an interview to GB News in July where she infamously referred to the England football team taking the knee as "gesture politics".

Operating in a manner similar to Fox News, GB News would divide up their 24-hour daily schedule into a different number of shows. Taking up the mantle of 'free-speech champions', these would often be opinion-based discussions, where the hosts would report on a particular news story and then spend about 10-15 minutes discussing it with guests. This format isn't uncommon in the UK already, with Good Morning Britain on ITV also operating in a discussion-based format. However, where GB News differentiates from a show like GMB is in what they talk about. As GB News is a politically-minded news programme, they would often pick and choose what to cover. They chose to adopt an "anti-woke" narrative in reporting, often picking stories which sought to ridicule and put down other groups, focusing on things such as eco-protesters and the Labour Party. What was once touted as a facts-based alternative to the likes of the BBC had quickly turned into a channel which seemed to indulge in stories and topics that ignite the so-called 'culture war' in the UK, with things such as the vaccine debate and Black Lives Matter protests being given preferential treatment.

Once the dust had settled on GB News, cracks were beginning to emerge. The show quickly lost steam from their opening in June from a ratings perspective. It lost roughly around 60% of its total number of viewers since its opening month, with an average of around 21,000 viewers watching the show between 6am and 2am. Given that GB News' budget was around £25 million, something was clearly going wrong. The show quickly fell behind its rivals at the BBC and Sky, averaging around roughly 6 million fewer viewers per week compared to the BBC News Channel. The channel needed to keep up with the BBC and Sky. There were even some instances where the audience's figures had dropped so low that they were reported as zero by the ratings measurement board BARB.

To humiliate GB News even further, the channel had reported lower viewing figures than some broadcasts of S4C's Welsh language Paw Patrol, which helped to put another nail on the coffin. For a news channel which had once proclaimed they could provide a suitable alternative to the titans of the News World, this was looking very silly. GB News' failure to amass a large enough audience to compete with the best reflected very badly on the need for them as a whole. Despite their initial ratings success and given the fact that measuring ratings in rolling news was considered to be quite a niche pursuit, there was always the risk that GB News wouldn't be able to attract a large number of viewers one or two months into the channel's life span. They clearly showed ambition and a will to compete with the financial means to do so, but were simply just not attracting enough viewers in order to put up a fight. Compared to the sleekness and proficiency of their American counterparts at Fox News, GB News was crisis ridden. To put it simply, they were dead in the water.

GB News knew that they were going through a crisis, having had problems both internally and through viewership. In order to try and solve the crisis at GB News and restore the channel's fate, someone new had to be brought in. Someone who could put GB News back on track in terms of TV and could potentially restore the viewing figures of that first month. To GB News, that person was Nigel Farage.

Brought in as Andrew Neil's replacement as head presenter at GB News, the idea seemed like a sensible one in terms of trying to attract viewers to the channel. He possessed a kind of Trump-like quality, had an air of showmanship about him and even though his views aren't particularly delectable to many, he is sometimes quite entertaining to watch. Farage's role in the Brexit Referendum was also a factor as he was instrumental in persuading millions of people to vote for Brexit, which could draw some of those voters into watching his programme which would incidentally help drive GB News viewing figures up again. The 'talking pints' segment of his show, where he interviews guests while having a pint with them, managed to attract noteworthy guests. He didn't offer anything different in terms of opinion, as he continued to preach the same old right-wing rhetoric repeatedly, but he was exciting nonetheless. The Channel took a risk in making Farage its star and it paid off to some extent. His debut show attracted just over 100,000 viewers, which easily beat both the BBC and Sky for that time of day. However, it has stagnated since then, averaging just around about 50,000 viewers per episode. This clearly indicates that there's something about GB News which just isn't attracting enough viewers and even Farage couldn't solve the problem.



This problem was further exacerbated by the sheer number of controversies that have occurred on the channel. When the channel was in concept, many took issue with the idea of there being a 'British Fox News'. Fox News has always been plagued with controversy thanks to its extreme right-wing bias and extreme (and often discriminatory) views being spouted on the programmes. This caused many to believe that GB News' right-wing ideology would replicate the behaviour shown on Fox News; therefore, some were against the whole idea of it, such as columnists at newspapers like the Guardian and the Mirror.

When the channel was up and running, the many technical gaffes on the programme drew a quite negative reaction online as it showed both the incompetence of the show's producers and how seriously they took themselves. GB News also found themselves in controversies during the summer when during a discussion about the racist abuse that black members of the England Football Team had faced, on-

screen presenter Guto Harri took a knee live on-air to show solidarity with players like Marcus Rashford and Jadon Sancho. His decision to take the knee outraged viewers of the programme and prompted GB News to fire Harri, citing that his decision to take the knee had 'breached their standards'. Many took issue to Harri's firing, branding his firing as 'hypocritical' given GB News proclaim themselves to be 'passionate defenders of free-speech' and 'anti-cancel culture'. This, in particular, reflected badly on GB News as it severely exposed the channel and made them look rather doltish.

In addition to this, Andrew Neil's clunky departure also significantly weakened the channel. Neil appeared on the channel for the first few months into its lifespan, but promptly disappeared from the Channel's programming schedule, which provoked confusion and disbelief from viewers wondering what happened to the veteran broadcaster. Speaking about his departure from GB News, Andrew Neil said that he would 'never appear again' on the show and said that the channel was trying to 'smear him'. Given that Neil was billed as the channel's top dog, his departure (which was just over 3 months into GB News' lifespan) became another factor in its downfall.

In its short but tumultuous lifespan, GB News has proved, ultimately, to be a dud. It had lofty ambitions of competing with the best but with floundering ratings and numerous controversies, that idea became seemingly more out of reach day-by-day. In truth, GB News was a failed experiment. One that tried to answer the question whether there can be a British News channel that can be robustly partisan and can still prove to be a monumental success. For me, GB News was something that could never stick to the forefront of the news. There wasn't a need in the UK political climate for a right-wing, partisan news channel. Unlike the US, Britain isn't as sharply divided in its politics and, therefore, something like GB News wasn't as badly needed as its producers might have wanted the population to believe. For now at least, GB News is pulling itself further into irrelevance and only time will tell as to how long it will be able to keep itself afloat.



Political Representation is Not Necessarily Real Progress

Amanda Amaeshi (FVI)

The May 2021 Scottish Parliament election was record-breaking in many ways. 45% of MSPs elected were women, an increase largely due to the SNP, Scottish Labour, and Scottish Greens using gender balancing measures, such as all or majority-women regional lists, to ensure women's representation. Also elected were the first wheelchair user (Pam Duncan-Glancy), first (known) autistic person (Lorna Slater), the first two non-white women (Pam Gosal and Kaukab Stewart), and more ethnic minorities than in the last five parliaments combined.

Combined with the fact that this was the first election where migrants and refugees could vote and that the election happened amidst a global pandemic, this year's election was undoubtedly one for the history books. In the days following the election, my Twitter timeline was flooded with celebratory tweets.

But why does a political representative's gender or race or disability (or any other identity) even matter? Well, we live in a representative democracy – which therefore should, as it says on the tin, be representative of the society it serves. By having people from diverse backgrounds and life experiences represented in parliament, a variety of skills and perspectives can be utilised to shape policies. And whilst I disagree with the phrase “you can't be what you can't see” – it's erasive of the fact that someone *did* initially have to be what they couldn't see – having visible representation does make it easier for currently underrepresented groups to access politics in the future. The pioneers, the “first [insert identity here]”, forged their own path – and paved the way for their successors.

As a young Black woman myself, I'm happy that there are more women and ethnic minorities and other people from traditionally underrepresented groups in parliament than ever before. But it is crucial that representation isn't used as the sole indicator of progress.

Just because someone is from a certain marginalised group, it doesn't mean that they are incapable of harming their own community or other marginalised groups. Take Priti Patel, the first non-white woman to hold the position of UK Home Secretary, for example. Born to a Ugandan-Indian family, Patel has upheld structural racism in the UK through unfair deportations and draconian immigration policies, including the Nationality and Borders Bill.

If passed, this Bill will further punish and criminalise asylum seekers fleeing persecution, and could give the UK Border Force immunity over refugee deaths. Legislation like this likely would have denied her own parents from entering the UK, if it had been enforced some decades ago. “Representation politics has created the same kind

of cognitive dissonance that celebrates Priti Patel being a woman! of! colour! in charge of dehumanising refugees and immigrants. Yas queen! An aspirational CEO of xenophobia!” writes Diyora Shadijanova in *gal-dem*.



Whilst Patel has faced racism (and sexism) herself, that doesn't excuse her actions. In fact, in June 2020, a group of BAME Labour MPs wrote to her to express their “dismay” at the way she had used her “heritage and experiences of racism to gaslight the very real racism faced by Black people and communities across the UK” in a debate over the Black Lives Matter movement, a movement towards which she has expressed hostility. *Yas queen!*

Now I'm not necessarily saying that any particular marginalised person who was elected (or re-elected) into the Scottish Parliament in May *will* cause harm to marginalised communities. Nor am I saying that any marginalised person in politics (or anyone, for that matter) will be perfect 100% of the time. I just believe that it is so important that we critically examine and hold accountable our political representatives, and remember that progressiveness should be marked by one's politics, not one's identity. Representation is not real progress if the marginalised people in power aren't using their positions to reduce oppression. And ultimately, our goal should not be simply political representation, but societal equality.

This article (at time of writing) has been shortlisted for the Young Hugo Award 2021, The Guardian's political opinion writing competition for 16-18 year olds.

From the Editor

Opinions: everyone's got them, and we all want to share them.

With recent events such as COP 26 and COVID we have people coming up with more opinions on these important topics each and everyday. In this edition of the Galley we have a range of different opinions from many of the students at our school and, whether you agree or disagree, I am sure that you will get something out of reading all of them. I have trust in our writers that they will be able to get you to consider their topics in a different way as they aim to share their views with you.

In this edition's Views section we have a range of articles from a look into Fantasy Novels by Valeries Andres to 'Contemplating the Meaning of Life' by Natalie Yeung. We also have Maiana Szapiro discussing the topic of abortion and Finlay Clark writing about euthanasia. Again from Natalie Yeung we have a piece on the rise of technology and, finally, we have a piece from Taro Rose on the concept of sustainable fashion. All of these articles have been thoroughly researched and are worth reading.

So far this year has certainly been much more normal than last year as we are now producing our first paper version of the Galley since 2019. I believe that when reading these articles you will find that they are just as good as they have ever been. I think that we have come back with a bang and I hope that you think so too!

Overall, I hope that you enjoy reading this Winter 2021 Edition of the Galley Views section and if you see anything that you feel you could offer an opposing view to, we would love to hear from you for our next edition. We are always looking for new writers.



Anya Wortley (FV)
Views Editor

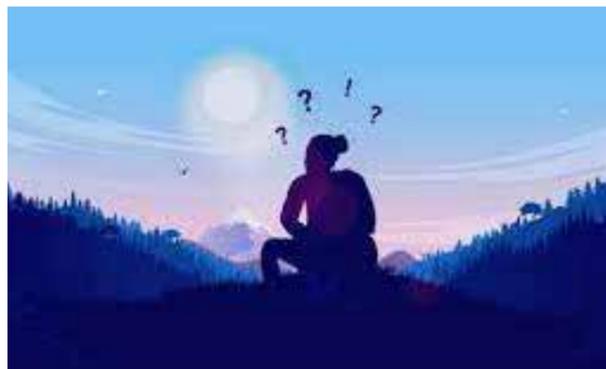
Contemplating the Meaning Of Life

Natalie Yeung (FIII)

Life can be incredibly perplexing. In the immense scale of the universe, our lives seem incredibly short; they end as quickly as they started, barely noticeable, in the blink of an eye. To think that we may make little or even no difference at all to the universe itself, and our achievements are always only going to be on a human scale, can be disheartening. And even on this scale, with all the structures put in place, both real, infrastructure, and ruling frameworks that governments use nowadays, it seems impossible to make any radical changes. For many years, philosophers have pondered the purpose and meaning of life for this very reason. All of us, in some way or another, want to leave this world with a mark - we want to be remembered and we want to live it our way.

But why, after years of hard work, research and pursuit, do we only enjoy a moment of success and freedom before being once again drenched in the desire for more? When will we ever be satisfied? *Will* we ever be satisfied? Is it even possible to leave this world without regrets?

What is the constant of this ever-changing world?



We all live with a mutual acceptance that we are going to perish some day. The notion of death and our finite days forms the very basic structure of life.

"The only certainty in life is death."



We can see this phenomena in life of all shapes and sizes and degrees of consciousness. Plants have long evolved to fend off insects and pests; animals gather in a way for a best chance to escape from predators... and the reason

life is so valuable is because it is so delicate and there is an end to it. If life was infinite, it would be excruciatingly hard to find meaning and to enjoy it at all. We could always wait until tomorrow, and everything would always be the same because, in infinity, nothing makes a difference.

We live because we die.



Humans are innately greedy. There is no way we can satisfy all our wants. The greatest gift - that of innocence - has been destroyed the moment we set eyes on this world. Because we realise that the world that we have been given will never fully belong to us. It has then become the quest of life to find our purpose in this universe.

How easy would it be if an angel descended upon you and told you what part you play in this universe? When we have complete, or what seems to be, free will on what we can do with our lives, it adds a layer of complexity. But at the same time, we have more control of our lives.

What I think: our brains will never comprehend the very idea of life. Whatever we are, whatever our purpose is, our ultimate goal is to lead a fulfilling life and leave as few regrets as possible. After all of this discussion, however ironic, live laugh and love may just be the things a normal human should concern themselves with. There's always more to seek if you want but we are, after all, animals controlled by our brains sending neurotransmitters and electric pulses. Meet and be with people you love, do things that you enjoy... and that may just be what we need.



Abortion - Discussing Both Sides of the Argument

Maiana Szapiro (FV)

On the 22nd January 1973, the Supreme Court affirmed the legality of women's right to an abortion in the US. This case is more formally known as the Roe v Wade case. Not only providing a medical option for women, this decision also meant that the right for a woman to terminate her pregnancy was protected by the 14th Amendment of the US constitution. However, this legislation has been restricted since 1992 when states were given the choice whether to allow abortions in their state. This has led to individual states halting, restricting and banning abortions. As seen in the news, Texas has passed a law which bans abortions after hearing a foetal heartbeat (usually heard at 6 weeks along in the pregnancy) and for any individual to legally sue doctors who operate after the 6-week mark. Some people may not see the problem with this, they may agree with this law as they are anti-abortion and pro-life. In some sense they find that abortion is murder and is a wrongful, unforgivable act. On the other hand, others who are for abortion and pro-choice, may find this law appalling and damaging for woman's rights.

So, what's right? Legalizing abortions or banning them? Letting a woman have the right to make a significant decision for herself or terminating a potential life. Intentionally killing an unborn child or forcing a mother to give birth to a child she might not want or isn't ready to have. I will ask you again, which is right?

For example, in America, 47% of the US population believe that abortion should be "illegal in all or most cases". The main reason for people to feel like that is their perception of abortion. Many see it as murder. Mothers who decide to abort are murders as they are killing their baby. After 12 weeks the unborn child can feel pain. So, should mothers be allowed to cause intentional pain to their child to stop their pregnancy? When you think of it like that it seems wrong, brutal and cruel. Between 6 to 7 weeks, the foetus starts having its first heartbeat. Between 7 to 8 weeks, the foetus develops brain activity and after 24 weeks, the foetus can respond to noises. For pro-life supporters this shows that the unborn child is alive and, since it's alive, it has the right to live. The mother has the right to manage her own health, not to murder her child.



But you have the other point of view. Other people believe that abortion should be and should stay legal. They are pro-choice. They believe that it is the mother's choice to decide if she wants to keep her child or abort it. Women have the right to make medical decisions concerning their bodies; this should include whether she wants to continue or terminate her pregnancy. This ability to make decisions is critical to woman's rights. This is also what "My body, My choice" is all about. It's her body, not ours. It's her choice, not ours. Individuals who are pro-life should know that the majority of women (88%) who have an abortion have it in the first trimester, before 12 weeks, this means the foetus doesn't suffer. As for the following 12% of abortions, after the first trimester - these would mostly happen due to medical issues that endanger the mother's life.



Nevertheless, no one can predict the future. Even if an unborn child has some sort of deformity, or disability, or the parents are in some difficult circumstances, you can't say that child will have a ruined and unhappy life. People against abortion believe that you cannot kill an unborn child who has a 'future like ours'. They are convinced that it is wrong to not let someone have a chance at having any kind of future. Life is sacred and should not be taken so unfairly. Yes, the mother might have her own personal reasons, but is that a good enough reason to not let her child live? Should her mistake cost an innocent life? Moreover, can a mother cope after an abortion? A lot of times, mothers are greatly affected. The culpability can sometimes be too much. So, is abortion worth it? Killing a baby, a developing life, and ruining the mother with dramatic guilt.



Yet another important thing to bear in mind when deciding to legalise or illegalise abortion is the consequences that happen if you ban it. Unlike other topics where the consequences are physical, banning abortion leads to a lot of non-physical threats to the mother and the child. By making abortions illegal, the government is forcing women to give birth without them having a say in such a life changing matter to them. This results in women having a child that they might not want or are not ready to have.

This can cause her to lose familial ties, lose her career, ruin life plans, create (more) financial problems and damage her mental health. In extreme cases she might have been a victim of a crime, rape or incest. These serious issues can have a huge impact on her life as well as her child's. In addition to this, the child could have an "unacceptable quality of life" because of poverty, their mother's state, or even because of physical or genetic problems that they might have. Furthermore, a different consequence to illegalising abortions is the increasing of back-alley abortions (when a woman tries to find another way to get rid of the baby). This "solution" is a lot more atrocious and painful. It has killed around 47,000 women every year. Is this what we want? To increase deaths that could have been prevented. To ruin two "sacred lives". To leave a child in a poor and horrible background and to destroy their mother. All of this because we couldn't let them have a choice.

Abortion is a difficult and sensitive topic. There are two sides for this; for: they want women to be able to make their own choice and have the right to choose abortion, or against: they want to protect the unborn child. If I was to answer the first question I asked, "should abortion be legalised?", I would say yes. I can clearly see both sides of this argument and I understand both views; despite this, women having the right to choose is what I think is right. Unlike people who are pro-life, I do not see abortion as murder. You can't kill something that isn't completely there or alive. In the first trimester of a pregnancy, terminating a pregnancy should not be considered murder. Furthermore, yes, people who get abortions do get side effects and sometimes serious ones, but the consequences of not having abortions is a lot bigger and affects both the mother and the child. Also, of all abortions, it was found in 2017 that 55% of them were done safely, 31% were less safe (meaning that they either abort by the recommended method or get treated by a standard doctor), and 14% are "least safe" where they take an alternative, dangerous 'method'. The higher proportion of abortions that are least safe are found in countries that are restrictive or against abortion.



If people reject abortions that's fine; however, it does not mean that they can make that decision for others. A woman's choice should not be denied because of other people's opinions. Abortion should be a normal medical right that women can have. It is not their view, or your view, or even my view that matters. It is not our choice to make.

It is her's, the woman who is pregnant, and no one else.

Euthanasia: The Right to Die?

Finlay Clark (FV)

The question over the value of human life has always been intellectually stimulating. For centuries now, many have tried to find the most potent and conclusive way to answer it. Some argue that life is a gift from a higher power and that is why people have no right to make decisions regarding how much control they have over their own lives, while others argue that people have free will and are able to make their own choices on what they do with their own lives. This line of argument has developed over time to include a new debate, regarding Euthanasia and whether we have the right to dispose of our own lives. This question has morphed into a complex line of thinking, full of physiological, philosophical and political roadblocks. Combine this with the ever-growing suicide rate in Britain, the legal problems surrounding assisted-dying and the current state of Mental Health in the 21st Century, is there a genuine case to be made for the legalization of Euthanasia and assisted-suicide in the UK?



Admittedly, the answer can be a little complicated, so in order to fully understand the issue at hand here, we need to understand what euthanasia actually means. Coining the term from the Greek words *eu* (meaning good) and *thanatos* (meaning death), the term refers to the practice of intentionally ending one's life in order to relieve deep pain and suffering. To further understand this issue, the use of euthanasia throughout history is extremely useful in providing clear-cut context to the situation.

Throughout history, we've seen multiple examples of euthanasia being used which can help to clear any lasting confusion surrounding the issue at hand. The deep roots of euthanasia stem from the Ancient world, with early civilizations such as the Greeks and Romans openly using this practice as a way of hastening death. Hemlock, a poisonous plant native to the Mediterranean region, was the choice of treatment to help quicken death. The use of euthanasia was widely

accepted and condoned by both Greece and Rome's famous philosophers, with famous thinkers like Plato and Seneca the Elder stressing that euthanasia was a matter of personal choice. It was also an accepted phenomenon during later periods of history such as the Age of Enlightenment and the early 1800s. By the time society had further evolved and the 20th Century had rolled around, the practice of euthanasia was still fairly common. King George V for example, was given a fatal dose of morphine and cocaine to hasten death. The Nazis were known for using euthanasia to wipe out the severely-disabled population, which killed over 300,000 mentally-handicapped Germans. This highlights the destructive possibility which euthanasia could potentially cause.

Throughout history, we can see that not only was euthanasia quite common but was a widely accepted part of life. This historical aspect of the argument is therefore integral to the debate, as it provokes the question over whether euthanasia is simply too medieval of a thing to be continued in 21st century Britain.



The current political state of euthanasia in the 21st century is also useful in giving context to the current argument. As of September 2021, 7 countries have fully legalized active voluntary euthanasia, which includes places such as Belgium and Canada. Even though it's still considered an act of homicide in a court of law in some of these countries that have legalized euthanasia, it isn't prosecuted and not punishable if the perpetrator (the one administering the treatment) meets certain legal conditions. Suicide tourism is very common in these countries, particularly in Switzerland, where people have travelled to clinics such as the Dignitas to partake in assisted suicide.

In the UK, euthanasia is illegal under all circumstances, although there has been significant debate growing as whether to change the current law. According to a poll by Dignity in Dying, Conservative Party members overwhelmingly support the view to change the current law on assisted dying by a margin of more than 3:1. As well as this, the British Medical Association (the leading doctors' union in the UK) have recently adopted a neutral stance on euthanasia after a vote, with 49% of members voting in favour compared to 48% opposing. This is significant, as it shows that the general position of leading politicians and health officials regarding the legality of euthanasia is slowly changing, meaning that

the likelihood of the UK going in tandem with these countries that have legalized it is ever increasing.

So, given the historical and political background regarding the topic, what case is there to be made for the legalization of euthanasia? Many have argued that euthanasia comes as a part of our personal freedoms: self-determination and the right to die without interference from the State. It would also enable those that wish to seek the treatment to die with dignity and in proper control of their own situation, allowing it to be a matter of choice and not something that is imposed on the general population by ruling powers.

The argument surrounding one's personal freedoms is an important one in understanding why people support the idea of legalizing euthanasia, a simple one if that. This is because it simplifies the idea of assisted-dying and puts it into the hands of the individual. If they want to undergo the treatment to alleviate long-suffering pain for either themselves or their families, then we should let them. Ultimately, it is their own choice and in a western democracy like the UK that already has services like abortion and gender-reassignment surgery available, the importance and significance of personal freedom in this argument is paramount. The effect that euthanasia would have on the families of those that seek out the treatment is relevant as well. It would alleviate the financial and emotional burden caused by having to look after the patient, as well as sparing them of the pain of seeing their loved one suffer a potentially long and drawn-out death.

Interestingly, one argument that crops up a lot in relation to euthanasia is one regarding the treatment of animals. Many have suggested that as society permits animals to be put down as an act of kindness when they are suffering, shouldn't the same logic be applied to humans? Both of them are mammals and if they were to seek out the treatment as a means of relieving their suffering then they should be viewed as the same.



On the other hand, there are arguments to be made against the use of euthanasia. Time and time again, the main argument people use to oppose it is morality. Many religious groups often come to this conclusion. They convey the belief that not only is the act of euthanasia morally wrong but also significantly weakens society's respect and value for the human life.

Catholic teaching, for example, condemns the act of Euthanasia, calling it a “crime against human life” and a “crime against god”. The Catholic Church base their views regarding euthanasia on several core principles of Catholic ethics such as the sanctity of humanity and the dignity of the human person.

Allowing euthanasia to go ahead would also mean that the search for new cures and treatment would be discouraged in favour of something simple like euthanasia. Some have suggested that proper palliative care is already available in the UK, which reduces or removes the need for people to be in pain, effectively cancelling out the need for euthanasia.

Allowing the legalization of euthanasia would also put too much power into the hands of the doctor which would damage the special form of trust in place between a doctor and their patient. Doctors could potentially pressure patients into going for euthanasia when they don't really want to. This could even lead to a scenario where involuntary euthanasia is more common, where those that are undesirable or seen as a problem could be killed. This tactic was used by the Nazis in Germany, where they used euthanasia to murder thousands of mentally-challenged Germans, showing how dangerous a tool euthanasia could be if it fell into the wrong hands.

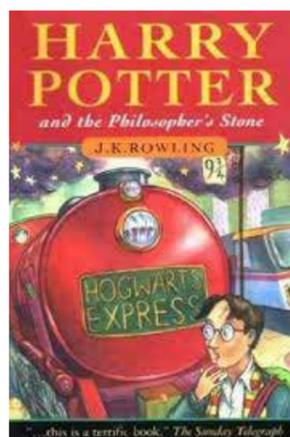


The debate surrounding Euthanasia has always been complex. It's something that's been around since the Ancient Greeks and yet still has a presence in modern society. To many, this debate is almost like a labyrinth. It's never-ending, complex and full of twists in both logic and morality. That's what makes it so fascinating. To me, euthanasia is something about which I sit firmly on the fence. I believe that people have the right to die and to say otherwise would simply challenge both the ideas of free will and self-determination. On the other hand though, the moral red-flags surrounding what would happen if euthanasia were to be legalized stick in my mind. If it were the case that euthanasia were to be legalized, I believe that strict rules and regulations should come with it. Ultimately, this would give people the right to choose when they want to die and would

Fantasy Novels: Worth Your Time or Poisonous Distractions?

Valerie Andres (FV)

Which Hogwarts House are you? Ever taken the test? Even if you haven't, I'm sure you've sorted yourself into a faction, determined what kind of elf you are or something similar. No? Well, then you're probably convinced that fantasy novels are a colossal waste of your time.



But you cannot deny that they leave an imprint on our society because, admit it, you've heard of some sort of magical, mystical world. Maybe strolling past the endless shelves in the fantasy section of your local Waterstones you thought to yourself, what a sack of dragon dung. Or, maybe you've fallen in love with one of those worlds hidden behind a colourful portal which, once opened, transforms you into an enchanted Alice—exploring your very own whimsical wonderland. Maybe you've wished you lived in one of those wonderlands every night before you fell asleep. I know I have...



However, mankind seems to be divided on this issue. Divided into people who will never once touch a fantasy book in their life, and into those who are charmed and will devour hundreds of pages filled with fantastic adventures. To all my realistic literature admirers out there, let me tell you, there are some wonderful and (before you roll your eyes) plausible reasons to make room for fantasy in your life. To begin, it is proven that younger children profit enormously from reading fantasy. An experimental study has shown that reading fantasy will expand a child's vocabulary considerably more than reading a non-fictional text will. Kids of the same age were given either a fictional or a non-fictional text. Candidates of the first group retained more new words than the others did. It's the potions, I'm telling you!

In addition, reading fantasy contributes to instilling fundamental morals in children. They are essentially reading modern fairytales which always contain a version of good and evil. Whether in a stripped down or highly complex manner, the message conveyed is that good always wins in the end. Hence, fantasy promotes optimism and acts as a motivation to do the right thing in life. Even if the kid bumps into reality later—it won't ever lose that fundamental idea of right and wrong.

A little further on in life, fantasy novels can make the turbulent teenage years a tad easier and contribute to shaping the person you will become. Mr Dashner, author of the critically acclaimed Maze Runner Series, comments on the impact of reading on teenagers: “The ages of 10 to 15 were my most magical time of reading where I was really exposed to just what words could do.” And they can do a lot. They don't have to describe real situations to do a lot.



Teenagers often identify themselves with their favourite protagonists, which allows for the content of the story to be closely related back to their own lives. The fate of the character can provide comfort, hope or advice. Say, for example, you're a very studious, bookish person—an absolute nerd—and people in school pick on you for it. Won't it feel very encouraging to watch Hermione Granger find friends that love her for her obsession to study, that appreciate it? It surely lets the possibility of making similar friends of your own appear much more realistic. Even though it was fiction...

On the other hand, fantasy can be harmful, especially for impressionable teenagers, as it can glamourise

toxic or unrealistic things—criticism is most often conjured in the contexts of relationships or violence. There are quite a few harmful misconceptions about relationships and love that are frequently seen in Young Adult Fantasy and have therefore become tropes. The popular enemies-to-lovers trope, for instance, usually portrays a controlling, borderline abusive boyfriend as romantic and promotes the idea that obsessive behaviour should be forgiven and seen as a sign of relentless love.



Speaking of relentless love, the soulmate trope, seen for example in Sarah J Maas' “A Court of Thorns and Roses” series, entails the idea that there is only one perfect match for you out there. Characters involved will co-depend on each other for not only their happiness, but often their sanity. An older, experienced person will promptly identify both examples as problematic and wrong, simply reading it for entertainment. A young teenager, however, for whom these romances are the first glimpse into love, might adapt these standards as the “norm”. Future healthy relationships might appear as not meaningful, not deep enough when compared to the soulmates' love. And problematic relationships might be tolerated—their toxicity unnoticed or seen as “okay”.

On another note, violence and war are explored in close to every fantasy book and often said to inspire violence in the reader. In reality, this is not the case. Violence and aggression are part of humanity. No matter how hard adults try to shelter their teenager from violence, if the young person doesn't see it on the news, they'll be confronted with it in school. Aggression is inescapable and so teaching a young person, in the simplified way that fantasy books often do, is much better than exposing them blindly to the much crueller reality. Furthermore, the argument that fantasy promotes violence as a solution to conflict is inadequate since that is not how war is portrayed at all. In fantasy novels, violence usually originates from the bad and is only responded to by the good. If anything, the apprehension and wish to avoid war that the hero often has, will vilify the idea of it. Ask any reader who's sat there, eyes too teary to make out the words because their favourite character was just killed, and they'll declare their antipathy for war. Violence in fantasy gives teenagers a harmless glimpse into the horrors of real war and will allow them to view it critically.

Overall, awareness of harmful things and choosing books that will not portray these in the wrong light is key when reading fantasy.

Following on, fantasy is not limited to the young, but can spellbind adults alike. Not only does it offer a beautiful world to escape into when reality gets a bit too dull, but it inspires forward thinking, having vision. Fantasy springs from the question, "What if..?" In fantasy everything is possible. Sometimes that dreamer mentality is crucial to be able to think beyond what already exists, to abandon the constrictions of the present. Reading fantasy provides people with a wild imagination which can then be combined with problemsolving skills to make the impossible possible. It could be that one specific novel that inspires the new Einstein to figure out how to make flying broomsticks a mode of transportation. Think I'm reaching too far? Well, look around yourself. Spot a laptop? A phone? A kindle? I can assure you your great great grandfather would've called the invention of any of those impossible. Yet here we are: deep in the age of technology. And it took vision and skill to get there. Fantasy novels are a space for adults to keep their childish imaginations and dreams alive and hone their creativity in order to channel them into great things. This space provided by fantasy is significant to ensure our world is evolving.



"Fantasy isn't the antithesis to reality—it helps shape it." The very definition of fantasy literature is "it includes magical and supernatural elements" which instantly will make it appear opposite to reality, but, as shown, that is miles from the truth. Since fantasy closely resembles societal patterns, anyone reading it will - whether consciously or subconsciously - be shaped by it. And this is literally anyone. Fantasy is one of the few, if not the only, genres of literature that is enjoyed by people of all ages. It is so versatile, so adaptable, that it can entertain and impact you, your 5-year-old nephew as well as your 80-year-old granny. Fantasy is a genre like no other and we should aim to preserve quality fantasy literature by promoting the fantastic authors that pour their heart and soul into kingdoms and realms and the legends that make history within them.

The Fashion Industry and Sustainability

Taro Rose (FVI)

Right now in our world clothing in general has become a real problem when trying to go sustainable. Clothing and the process of producing any type of clothing is one of very many causes of climate change, which is now a serious problem. Climate change may not be affecting you now, and it may not be affecting you on an individual basis, but it can change the environment you live in.

In March 2020 a BBC news article tells us that - "The fashion industry accounts for about 10% of global carbon emissions, and nearly 20% of wastewater. And while the environmental impact of flying is now well known, fashion sucks up more energy than both aviation and shipping combined." This is significantly important because due to our wants the world is being affected more. The aviation industry may be a want for some people, but some businesses need it to survive and the same with the shipping industry. Whereas fashion, arguably, is just a want not a need.

Another problem with the fashion industry is its waste and how much of what we wear goes in to the bin after use. For example, in the US around 85% of all textiles are being thrown away. 13 million tonnes are either being sent to landfills or being burnt. This is significant as it shows people wear the clothes little more than once and then bin them. Burning textiles causes pollution, with the emissions and bad gases going into the world. This is a shocking amount of fabrics that have been disposed of.

This leads to my third point about fast fashion and how or will it ever be sustainable and healthy to the world. Fast fashion has become a real problem and is the main cause of clothing being sent to landfill. Right now fast fashion is a term used to describe cheaply made and cheaply priced clothes. From what I know, it is clothes



that are made based on the customer and not the actual business: they are giving customers the cheapest option rather than spending a lot. The economics of a fast fashion business are simple because the person who buys it will throw the clothing away after whatever the occasion and come back again to buy more. This cycle will never stop unless we do something now.

The problem with the cheaply priced clothes is that they are much cheaper than branded clothing so those with disadvantaged families or low income will find it easier to buy from fast fashion. However, it's not bad to buy from fast fashion some times and those cheaply made clothes can last long just depending on how you treat them. But, the problem with cheaply produced and made fabrics is that they are bad for the environment. For example, polyester is used or mixed in with many clothing items. It is usually quite hard to find items that are 100% of a certain material. If you do it is usually on a higher price range.

Can fast fashion be sustainable? Yes is the answer from a Vogue article in 2019. For example, one of leading brand Zara's goals to be more sustainable is for 100% of their cotton, linen and polyester to be sustainable by 2025. This will mean that Zara will become more friendly towards the environment and will be more friendly in the fabrics they use.

How can you be more sustainable when buying clothes or with the clothes you have now?

1. Try to get the most out of your clothes in your wardrobe.
2. If buying in fast fashion stores look for clothes you will wear more than once.
3. Look at second hand shops or thrift stores.
4. Look carefully at the materials used in the item.
5. Recycle or give old clothes to a charity shop so that other people can wear them.
6. Try making new clothes from old fabric.



Man or Machine: The Rise of Technology

Natalie Yeung (FIII)

For centuries, humans have survived using their own skill and ability. Ladies hand sewing clothes, farmers weeding their land with hoes, lumberjacks cutting down trees with axes. As long as you have the power and time, you could do practically anything. But bigger ambitions require a longer duration and more strength, assets that not many are equipped with. As humans move from basic survival to achieving more aspirational dreams, they are faced with a ruthless reality: human bodies simply aren't designed to last and, needless to say, there is a limit to one's energy, vitality and vigour. It is plainly accepted within humanity that because of our shortcomings, it is impossible to achieve the many fantasies in our imagination.

When Greek philosopher Archimedes discovered and described the first three machines - The Lever, Pulley and Screw - it unlocked a whole new perspective for society on the topic of work. People began to think: maybe brute force and unwavering determination wasn't the answer to everything? Maybe we could utilize the power of nature and science to be more efficient? And so began the field of engineering. For many years to come, starting from simple inventions, such as the compass, screws, wheel and axle, to more complicated objects involving electricity and work, like the light bulb and the internal combustion engine, humans thought machines allowed them to work at a more efficient and comfortable pace than ever.



The pivotal point in the development of machines, however, happened during the industrial revolution, when the prospect of using steam to power engines was bestowed on the world by Thomas Savery. With most of the machines automated, goods are being manufactured at a record-pace, thereby boosting the economy and providing many more employment

opportunities. Societies needs were enhanced with better quality and speed. To put it simply, the idea of creating machines just presented so many opportunities and promised humans a much more systematic and structured way of production.

Just 100 years later, during the 1950s, for the first time ever, humans used machines to go to places we have never ventured before. Because of machines, the first footsteps were placed on the moon; planets could be observed with incredible magnification; we could heat food in seconds with a microwave; and the first computer modem was made. It was a time of great discovery and wonderment.



But as we journey into the 21st century, machines cannot be fantasized. As curious as they are, grave problems with dire consequences started to emerge. Machines have started to challenge our very existence. We have grown so dependent on these engineering wonders, that many of us have lost the ability and skill to survive without them. With a growing population and habituation of living with machines, the modern lifestyle is, in essence, subject to machines and machines determine the way we live. People can be deceived that we still have control of these gadgets but, in reality, we have become one; we are inseparable.

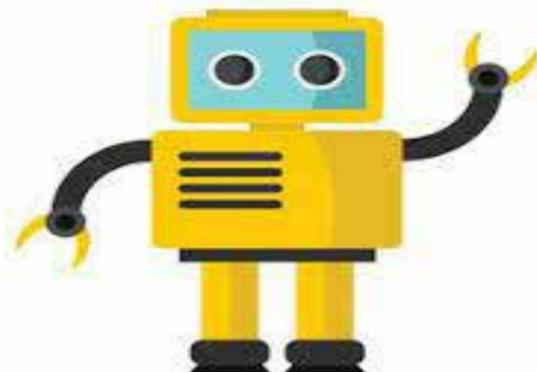
Consequently, fueling these machines have become essential to our wellbeing. But with natural resources running low, there are desperate cries from the future generation, for they will not be able to survive, not to mention advancement and progress without the very basic input of electricity. Additionally, the law of conservation of matter tells us that: what goes in, must come out. Fuel brings waste. Since the industrial revolution, greenhouse gas emissions have rocketed, resulting in these gases blanketing the earth, trapping heat, and causing climate change.

Even with these problems at hand, humans are unable to stop innovating. To improve humanity, we must refine machines. Many of these machines have become so adept in their particular jobs and functions that they are able to replace humans, so that now they are not creating jobs, but replacing them. They are no longer assisting humans in their endeavours, but instead, well on their journey to replace us.

In a short time span of 300 years (since the first completely automatic machine was created by Charles Babbage), machines have completely overpowered

humans in terms of the basic two requirements of power and time. It will not be long until they conquer us in terms of intelligence.

Our brains function on one basic principle: experience. We are shaped by our memories: how we were raised; who we grew up with; what challenges we faced and our skills, which are essentially experiences repeated over and over until you have mastered them so well that you can completely familiarize yourself and even predict what is going to happen. Last, but not least, decision making, which is powered by a rational choice between different consequences that you've faced in the past, weighing different ethical and moral factors to come to the verdict of the best possible outcome. After all, machines have trillions of gigabytes of data. They've got plenty of experience. By far, we are able to turn machines off with a switch of a button, but once we've granted them consciousness, rights, so that they are treated as if they have life, and data, they will be invincible, and we will not be able to stop them.



Except, we are different from machines. We are able to feel. Machines can have artificial empathy, but unlike humans, whose feelings can lead to bodily sensations and actions, they cannot reproduce the adaptability and variability of the human soul.

We are playing with fire here. It can destroy, rip and crush the foundations of society, and present us with problems that could lead to our demise. But at the same time, if we use it right, technology can prove to be an extremely valuable resource - the resource to harness power and achieve goals. Science and technology is the only way forward for increasing the scope of human consciousness and influence in the universe. In this time and age, we must carefully decide our next move, and take matters into our own hands, to sculpt and mould our future in the right direction.



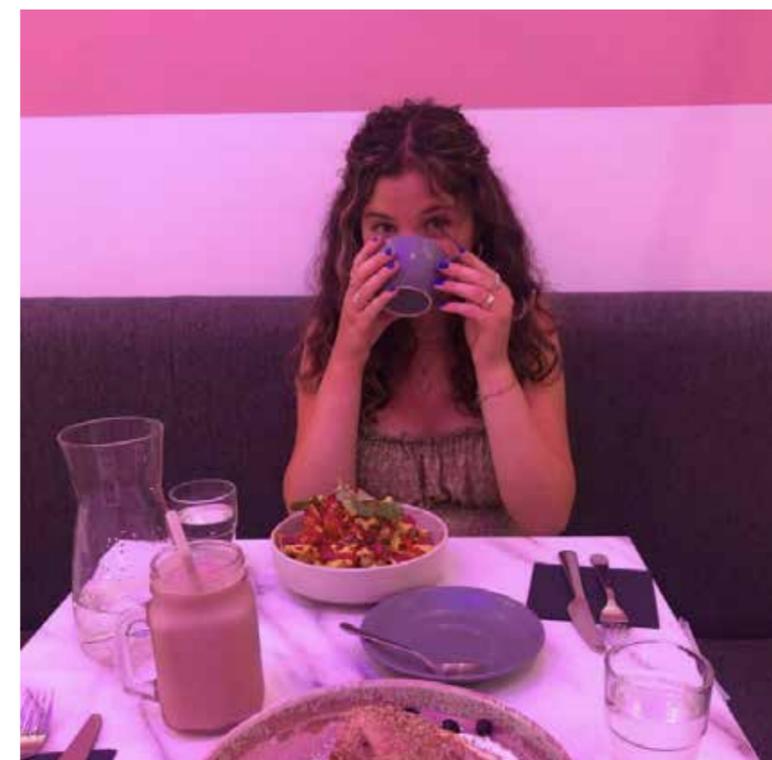
From the Editor..

We are living amid the first global trauma event for several decades - arguably the first of its kind since World War Two. The global economy, international relations, the individual's mental health, the simplicity of everyday life: nothing has been spared in the whirlwind of the pandemic. Complex social extensions and the building blocks of our personal experiences have been altered indelibly. So, as division continues to spread amongst populations with the world enduring in putting up its borders, how can we change the pandemic into the turning point our world needs?

As much as the pandemic has exposed us to the fear and hate that can become commonplace in times of struggle, it has also revealed the power of compassion and understanding, with glimpses of light being shown throughout the darkness. It is clear the normalities of life, the ways we live and work together and how we view each other as people has been permanently altered throughout the past few years; however, perhaps it can be for the better, giving us a new recognition of each other's similarities opposed to our differences. In a time where it seemed simpler to turn our backs on each other, empathy prevailed, and the sharing of one another's stories has allowed us to come together and move past the hardships we've been forced to experience.

Features works to do the same, communicating different experiences and opinions, drawing on the diverse viewpoints of Dollar and the world, reaching from Dostoyevsky's Russia to modern-day Italy. The representation of stories and experiences showcases the diverse interests of students, expressing important lessons learnt that translate to the bigger world, inspiring us to the empathy and compassion that is in dire need today.

Izzy Braid (FIV)



Reduced, Demolished and Left to Rot: Cultural Vandalism

Ben Marshall (FVI)

1954, Shropshire. A screen of smoke appears, followed by a loud bang. An 18th Century Gothic mansion crumbles to dust. Once the bedrock of rural society, the country house was left behind as the world raced into the 20th Century. The result was cultural vandalism on an industrial scale. This was not a new sensation by any means, the landed classes had been tearing down their old homes since the reign of Elizabeth I. This time, however, nothing replaced them. It wasn't like before where a fortress was replaced with a Jacobean manor, or a gothic house was razed to make way for a striking folly castle. This time these grand houses were de-roofed, abandoned or demolished, only to be replaced by car parks, fields or pebble-dash housing.

The scale at which these demolitions took place was alarming, with one Dundee firm demolishing 56 houses in 20 years. In total, 1,200 country houses of varying architectural significance were demolished after 1900, ranging in grandeur from large farmhouses to monumental palaces. Although the reasons for the landed classes demolishing their country houses varied, there were almost always financial factors at play, from taxation to loss of income. In 1912, the magnificent Trentham Hall (once envied by Iranian Royalty) was demolished, foreshadowing the destruction that would persist until the 1970s and 80s when people began to see how valuable the country house is to Britain. But, by this point, all we could do was lament the loss; we had flogged the furniture, carved up the estates and torn down the stucco-clad walls. The cultural identity of Britain had been tarnished.

People often wonder why such beautiful houses were destroyed, and the main reasons can usually be linked to money. New death duties were introduced in 1894 and a wave of taxes would soon follow, making it difficult or impossible to pass on great estates to the next generation. There was one way to avoid it: deroof the house. Dwellings without roofs were exempt from taxation meaning that some houses, such as Dalqurran Castle, designed by famed architect Robert Adam, eventually lost their historic interiors as they were exposed to the elements and gradually rotted away. Although this at least left the facades of some great houses intact, for others having the roof removed was simply the first step as the ruins were later razed.

The tragedy of this approach was that some houses were de-roofed in the late 60s, and by the early 70s, they were protected architectural treasures, despite the government failing to lift a finger to protect the intact houses. One method of avoiding the soaring death duties was to bequeath the house and its contents to the government which saw many architecturally significant mansions go to the National Trust, thus saving prominent pieces of

British history.

Although this system undoubtedly saved many great buildings for us to cherish, some degree of incompetence was still present. In 1977, the Labour Government failed to save Mentmore Towers, seeing the contents dispersed and the house falling into private hands.



Another surprising reason for the mass demolition was the war effort. As the UK took part in two world wars, country houses and their estates were often requisitioned by the government to be used as barracks, training grounds, convalescent homes and hospitals, which often proved catastrophic for many manor houses. The army was not an appreciative tenant and they were certainly not interested in admiring historic interiors. A mixture of vandalism and lack of maintenance often led to severe structural problems occurring. A blocked gutter in 1940 could lead to a rotten roof by 1945 and complete demolition by 1950.

To make matters worse, the compensation for the immense damage of these houses was often too little and too late and, after the hardships of the war, the easiest option was to simply tear down the house. The government failed to see any value in protecting the houses of the landed classes, irrespective of the benefits they had to the local community. A notable example is Gopsall Hall in Leicestershire. Gopsall featured light and airy Neo-classical Georgian interiors adorned with murals and trimmed with ornate cornices and balustrades. The exteriors exhibited subdued elegance with the help of a Corinthian portico and a symbolic pediment, complemented by sophisticated and luxuriant gardens. After being purchased by the government in the 1930s, the house was abandoned until WWII when it was used as an experimental radar base.

After the war, there was no family to reclaim the house so it was abandoned and left to decay. Gopsall was stripped of its magnificent Georgian fittings by souvenir hunters and

the lead was taken from the roof, which only exacerbated the poor condition of the house. The house was torn down in the 1950s and the beauty of Gopsall was lost forever.

Before:



After:



Perhaps the most painful reason as to why so many historic country houses were demolished is that there were no regulations in place to save them. Despite the first act to protect historic structures being introduced in 1882, only a mere 50 sites across the UK were included; all of which were prehistoric, meaning that thousands of historic sites across the UK, especially private residences, had no legislation to protect them from destruction.

Despite further legislation being introduced in 1947, which began the system of listed buildings, country houses were still torn down at a shocking rate over the next few decades. The 1947 legislation was a step in the right direction, even though it came 50 years too late. By this point, monuments such as Hamilton Palace and Trentham Hall had vanished and a long list of castles, steadings, abbeys, manors and mansions were on life support.

Prominent British architects such as Playfair, Adam, Mackintosh and Bryce all had their works at Cowden, Bowood, Panmure and Drumhanagher destroyed. Think of the irreplaceable beauty we tore down and left to rot. Imagine we converted them into useful buildings. Imagine, instead of a trip to the local shopping centre involving a drab, dated, dropped-ceiling concrete box, pulling up to a magnificent manor, complete with columns, cornices, balustrades and bay windows. Imagine browsing the rails of H&M in a Jacobethan drawing-room or grabbing a Costa in a Corinthian Orangery. Imagine crafting the next generation of citizens in a surrounding of refinement and beauty. Maths in the ballroom, geography in palm-court. And with thousands of acres enclosing the houses, new buildings could easily spring up to supplement the already suitable house. Such magnificence would lead to greater societal happiness and satisfaction with our infrastructure.

Works by some of Scotland's most valued architects such as William Henry Playfair, Robert Adam, David Bryce and Charles Rennie Mackintosh were all lost. These men created stunning examples of British architecture and there is no way to simply flick a switch and restore their lost masterpieces. An ideal example of how useful country houses can be is Stowe House in Buckinghamshire. After having its contents stripped away, the neo-Classical masterpiece escaped demolition when it saw new life as a boarding school in 1923, Stowe continues to dazzle pupils and visitors alike as it has done for over 300 years. This concept could have seen the beauty and visitor appeal of UK towns greatly improved; instead, we tarnished Britain's magnificence.

Perhaps the greatest shame of Britain is not that we cannot replicate the lost glory of the country house, but rather we were too lazy, too incompetent or too apathetic to save them. The architectural magnificence of Britain was tarnished by a series of elected vandals who had no interest in saving monuments for the good of the British people. However, we shouldn't be too pessimistic. Although many great houses went under, many still remain, serving as a great reminder of our architectural past. Country houses represent not just the history of their elite owners, rather they also remind us of the footmen, butlers, cooks, maids, gardeners, stable workers, builders, architects, plasters and artisans who made and ran these great houses to a high standard, providing valuable employment in rural areas. We must realise how valuable the country house is to Britain as a whole, and why we must save them for future generations to learn from and admire, as well the benefits they provide to rural society. The 'big house' truly is the unsung hero of the British People.

Naples to Scotland

Silvia Allison Solima (FIII)

It all started one hot summer day in Naples, Italy. We were in the midst of the first quarantine, and I had been confined to my house with my family for the past few months. We had the air conditioning on at full blast most of the time, trying to escape the immobilizing heat. In the past few days, my thoughts had been centered around two things: staying cool and getting out of there. At the time I was in my last year of middle school. The next stage would be moving to an Italian public high school which, considering the circumstances, probably would be online. The schools in Naples aren't great nowadays. When my parents were growing up, they were good schools, but over the years, they changed. I had always wanted to go to a school where I could study in English, so that year I had started to work harder than ever trying to accomplish this. I hadn't really put much thought into the fact that it was too late to apply to any school, yet alone move somewhere. That day I suddenly realized that I needed to get out of Naples. I didn't want to do another year online. Keeping up with school work was also becoming increasingly hard. I started to look into schools, thinking I could maybe go in two years.

One day, my aunt told me about a school in Scotland that

she went to when she was younger. At the time, I had only been to Scotland once. I had really liked it, but I wasn't sure if I wanted to move so far away from everything I had ever known. I was running out of possibilities and time, so with my parents' help, I applied. I wasn't allowed to tell people at first, in case it didn't work out. It was strange to see my friends every day and talk to them as if nothing was happening.

Let's fast forward to the present day. I'm sitting at my desk in a boarding house in Scotland. So I guess it did work out. My parents are both in Italy. Sometimes, the strangeness of this situation strikes me. Suddenly, I realise, "I'm in Scotland. How did I end up here?" I ask myself. "More importantly, where did all the time go?"

It is my second year at Dollar Academy, and I'm enjoying every second of being here. However, I still haven't gotten used to many things. Every morning on my way to school, I feel sure that it can't get any colder, though I know that it's still summer. My friends, meanwhile, are still going to the beach. They tell me that it's so hot in Naples and that I'm lucky to be in a place where the temperature is cooler. There is so much nature around me. In between periods during a school day, all I have to do is look around, and I will see rolling green hills right above me, trees in all directions, and lush green grass.

Where I grew up, there is a very urban scenery. There are buildings of every colour and size, and there are almost no trees. If you walk a few minutes, you will see a different landscape: the sea. On a good day, the sea is crystal clear and all kinds of greens and blues. The water's surface glimmers in the sunlight. Vesuvius looms over the city,



and you are able to see every detail of its surface. On a bad day, the sea is a never-ending sheet of grey. In the distance, Vesuvius' peak disappears behind a thick cloud of fog. Another change I still haven't been able to get used to here is the quiet. After a certain hour, everyone goes inside. Everything goes quiet and dark, and all you can hear is the patter of the rain and the wind in the trees. It's calming, but it can also be eerie. In Naples, there is always noise. There is always someone having a party and blasting loud music. There are always cars honking at each other. There are planes, seagulls, fireworks, people yelling at each other in Italian. The noise is comforting. It reassures me that the rest of the world is alive. I am starting to get used to the quiet though. It's nice to be able to think without being interrupted. I like the boarding house. We're like a big family. In total, there are twenty-three girls. There is always something

happening and always someone to talk to.

The school is amazing. I actually look forward to going every day, something I never expected to feel. I met a lot of new people. I finally feel like I've found my place. I do still miss my old home at times. Although I'm here now to study, I don't think I could live in the countryside my whole life. I prefer the city and its busyness.

I used to hate living in Naples. I wanted to have grown up where my mother did in America. But now, I'm proud of where I come from, and I realise that it's better for me to have grown up there. I know that if I have to go back to Naples and live there, I won't mind. There is so much culture and history, and after all, it's where I'm from.

Dostoyevsky's Prediction

Izzy Braid (FIV)

The past few years have brought with them the most unexpected of occurrences. Our world was essentially turned upside down. A global pandemic. Politicians that resemble the punchline of jokes more closely than their job descriptions. Who could have predicted it? Well, in 1866, Fyodor Dostoyevsky did. Through his greatly celebrated masterwork *Crime and Punishment* the Russian forecasts the world which we live today with frightening accuracy through the novel's radiating apocalyptic sensibility and dark chaos.

I first picked up *Crime and Punishment* in quarantine, amongst intense isolation similar to that of the protagonist's. With the news spiralling out of control, I was tired of pretending everything was "unprecedented", that the malignant behaviour of politicians was just "not who we are" and that the happy ending of justice was just a matter of time. Although slightly morbid, Dostoyevsky grapples with the hard truth of the vulnerabilities of human nature with a style only the most "Russian" of Russian authors could pull off.

The novel follows Raskolnikov, a young and "remarkably good looking" law school dropout whose destitution and utopian thinking leads him to kill an old pawnbroker and her half-sister who stumbles onto the crime scene. Vacillating between exhilaration and fits of guilt-ridden behaviour succeeding the murder, the Russian begins a tormenting cat and mouse game with Porfiry, the man intent on finding the killer. Eventually, under the guidance of an eighteen-year-old prostitute, Sonya, he confesses to his crimes and is sentenced to prison in Siberia.

Falling perhaps forcibly before the novel's conclusion, Raskolnikov has a dream in his ill stricken state that uncomfortably reflects the happenings of our own pandemic. He dreams "that the whole world was doomed to fall victim to some terrible, as yet unknown and unseen pestilence spreading to Europe from the depths of Asia". He dreams, essentially, of COVID. Yet was this fantasy just a morbidly peculiar summation of the novel or is it also an unwitting prediction of where we are going?

To understand this question, it is important to recognise t

context in which it was written. St Petersburg - the city which Raskolnikov inhabited and where Dostoyevsky spent much of his life - was a hothouse of radical and reformist ideas. The author himself was arrested, subjected to a terrifying mock-execution and sent to Siberia where he became enticed by the New Testament. Now a believer in Mother Russia and the Russian Orthodox Church, he returned to the city and using his ideological shift to his advantage, wrote *Crime and Punishment*. Dostoyevsky's Petersburg ignores the grandeur of the imperial buildings and public squares, and instead focusses on the starving children, voluble drunks and girls forced into prostitution. It's a society neither communist or capitalist, where families are destroyed by the absence of social structure and the middle class is nowhere to be found.

However, within Raskolnikov's dream we are subjected to an even more feral world than the one presented in Petersburg with the complete disintegration of society. Most likely, the dream is an extreme expression of the killer's mind: having murdered two people he now wants to murder the masses. However, couldn't it also be the complete opposite? An expression of the extent of Rodya's pity for a collapsing world? It remains contradictory till the end, and while it is unlikely Dostoyevsky could have foreseen the pandemic, it is probable he was able to identify the trajectory along which the world was moving - that of globalisation.

It's easy to picture the metaphorical virus in the dream as emblematic of the invasion of fake news that has become increasingly prevalent in 2021. Raskolnikov explains the symptoms of the virus led to a societal collapse into "senseless delirium" and that those infected became "possessed and insane" by the belief that "their pronouncements, their scientific conclusions, [and] their moral convictions" were "infallible." These words written in 1866 resonate too closely with the experiences of many today, justifying Dostoyevsky's long held fear that the spread of nihilistic ideology would cause insanity by allowing everyone to view themselves as the sole possessor of the truth.

In the 21st century, opposed to the doctrine of nihilism, it is apparent our use of social media and reliance on disinformation has induced this shift. By the simple click of a button we are exposed to a world in which opinion can be read as fact as easily as fact can be read as truth. This "virus" has caused the capital riots in America, a dismantling of democracy and continues to divide those who are otherwise friends. In order to avoid the ominous fate Dostoyevsky predicted, it is now more evident than ever that there is a vital need to dedicate ourselves to a collective understanding of a reality rooted in empathy. I believe that if Raskolnikov - whose moral compass was just as twisted as humanity's today - can overcome his wrongdoings and redeem himself, then so can we.



'It happens all the time': Girlguiding's panel event on sexual harassment at the Labour and Conservative Party Conferences

Amanda Amaeshi (FVI)

Since October 2019, I've been a member of the Girlguiding Advocate Panel, and I've loved every moment of it. Advocates are Girlguiding's spokespeople: we speak out on issues that matter to us and to girls and young women across the UK. As an Advocate, I had the opportunity to go to the Conservative Party Conference alongside two other Advocates. This was a fantastic opportunity to speak with politicians and other key decision makers about girls' and young women's views, as well as it being a fascinating insight into how events like these work. (I should add that Girlguiding is not affiliated with any political party, and that another three Advocates went to the Labour Party Conference the week prior. I would also like to disclose that I'm not a Conservative myself.)

At both conferences, we Advocates ran a panel event in the Youth Zone called 'It happens all the time', to highlight our research that shows the prevalence of sexual harassment faced by girls and young women in the UK, both in person and online. By running the panel event, we made sure that the voices of girls and young women were at the heart of the conversation. We shared our experiences around sexual harassment and provided a determined and clear message that these experiences need to be prevented so that all girls and young women can feel safe in society.

On our panel at the Conservative Party Conference were: Ruth Edwards MP, MP for Rushcliffe and Chair of the Digital Tories; Councillor Abi Brown, Leader of Stoke-on-Trent City Council; Katy Bourne, Police and Crime Commissioner for Sussex; Sara Britcliffe MP, MP for Hyndburn (and the youngest Conservative MP) and Abbee McLatchie, Director of Youth Work for the National Youth Agency.

(At the Labour event were: Jess Phillips MP, MP for Birmingham Yardley and Shadow Minister for Domestic Violence and Safeguarding; Councillor Peymana Assad, Councillor for Harrow and Cabinet Member for Community Cohesion, Crime, and Enforcement; Ros McNeil, Assistant General Secretary, Equality Social Justice and International, National Education Union and Emily Spurrell, Merseyside Police and Crime Commissioner.)

At the Conservative Party Conference, I opened the event with a speech – here it is:



Hi everyone, I hope you're all having a good day, thank you for having us here. We are Girlguiding Advocates: we are Girlguiding's spokespeople who speak out on issues that matter to us and girls and young women across the UK.

I want to start by asking you all a question: what percentage of girls and young women aged 13 to 18 do you think feel unsafe when they're outdoors on their own? On a typical day. Feel free to shout out what percentage of young women you think.

[Someone shouts 60%. Another then shouts 80%, and there are murmurs of agreement from the audience. Spoiler alert, the audience is correct – so I remark that they must've done their research.]

Okay. Let me tell you. Following public conversation and concern around girls' safety on the streets and at school, earlier this year in May Girlguiding conducted a survey with girls and young women aged 13 to 18 across the UK to find out about their experiences. And do you know how many girls and young women said they felt unsafe outdoors on their own?

80%.

What's even more upsetting is that, when I first read this statistic in the report, I wasn't at all surprised. From unwanted attention and comments to physical abuse, harassment is widespread in all parts of the country, in all areas of girls' and young women's lives. Is that the kind of country we want for us young women? One where 51% of young women aged 13-18 have received unwanted sexual comments directed at them in public, and where 67% have experienced sexual harassment at school from another student?

In addition to this, our latest Girls Attitudes Survey published last month showed that 71% aged 7-21 experienced some form of online harm in the past year. For 11-21 year olds this includes sexist comments (50%), harassment (28%), unwanted sexual images (26%) and bullying (21%).

Fear of sexual harassment negatively affects girls' and young women's freedom, opportunities, and mental health. I am enraged by this, and you should be too. This is beyond unacceptable. Which is why Girlguiding has been

taking action.

One of the reasons why I love Girlguiding is that it gives us girls and young women a space where we can be ourselves, gain valuable skills, and discover our full potential. Girlguiding's programme, which has been developed with girls and young women, includes topics and activities that can help us to explore important issues we care about, such as empowerment, safety, and harassment, and its safeguarding training supports its 80,000 volunteers to confidently identify and respond to any safeguarding issues. Girlguiding has also campaigned on the issue of sexual harassment in schools since 2015.

So that's what Girlguiding's doing to tackle harassment. But whilst Girlguiding supports girls and young women to have a platform to have our voices heard, abuse and harassment happens on such a massive scale in all areas of our lives – and so it needs to be addressed by everyone. We need action urgently. The burden mustn't fall on us girls and young women to try to change this societal problem on our own. We need everyone to act urgently.

We believe girls and young women should be able to easily report sexual harassment and abuse and feel confident it will be taken seriously and that their complaint will be dealt with effectively. Schools and teachers need to be appropriately equipped to address sexual harassment: this includes a behavioural approach, including sanctions when appropriate, and routine record-keeping and analysis of harassment and abuse. Online platforms need to support and enable young people to easily report abuse and harassment – and to then take action against offending accounts.

But, as much as making it easier to report harassment and believing victims is important, we see that preventing this harassment from happening in the first place is even more necessary. More can and should be done to prevent sexual harassment, including through more effective sex and relationships education in schools.

Furthermore, as the government develops the Online Safety Bill, it should take into account Girlguiding's research, so it can strengthen safeguarding controls for children and young people to protect them from viewing online explicit material and engaging in harmful sexual behaviour on social media. There also needs to be a greater regulation of broadcast and non-broadcast media, ensuring that these platforms don't perpetuate images and stereotypes that sexualise and objectify women.

So, I have one more question for you all today: how long will it take until the 80% of young women who feel unsafe when outside alone can feel confident? Well, the answer to that is in your hands. I've told you what you need to do – there's so much that you can do. Now it's up to you to make a difference – for the 80% of young women, and for all of us. Thank you.



Girlguiding's events at the two party conferences were packed full of engaged and interested people willing to learn from our lived experiences and the panellists' views, a testament to the fact that the discussion around sexual harassment now has a significant place in politics and wider society.

Topics that were discussed included support for victims, the impact of sexual harassment and abuse on mental health, how social media has exacerbated abuse, reporting harassment, criminalising public sexual harassment, improving sex and relationships education in schools, safe spaces, and the role of men and boys in stopping sexual harassment and abuse.

Now, more than ever, we need to have these serious conversations around sexual harassment and abuse. Conversations are a great starting point from which more action can be taken to shift a culture that is deeply rooted in misogyny. The conversation can't end here – we need it to continue and expand. It's so important that our country's decision makers take on board the key messages from our panel events and advocate for changes to the law and the systems which currently perpetuate this issue.

However, it's not just politicians that need to come together to make change: we can all make a difference by calling out 'banter' before it becomes something more sinister, reporting offences, implementing measures to keep women and girls safe, and encouraging open education and conversation to prevent this issue.

The burden mustn't fall on girls and young women to change this societal problem alone. Everyone must act urgently.



The Lonely-Hearts Club Killers

Saffron Phillips (FIV)

The Lonely-Hearts Club was a matchmaking service popular in the 1940's in which singles would send letters to one another through mail, similar to a dating site we would find today.

On this site was Raymond Fernandez, a charismatic and charming Spanish man, who put his personal advert on the dating site. He discovered that he could use his charismatic personality to woo lonely women, gain their trust and proceed to scam and rob them. He used a fake name, going by "Charles Martin". He created a persona of a tall, dark, and handsome guy, who women tended to fall for. His plan was working fine, until one woman fell in love with him unconditionally.

Martha Beck was a woman who Raymond had tried to scam. She had two children, who each had different fathers. She was a nurse and fit into the lonely and vulnerable sort of woman Raymond was looking for. She was divorced which was quite taboo back then, and she was very self-conscious about her weight and had been picked on for it. Her co-workers at the hospital sent in an application to the Lonely Hearts in her name as a joke. She felt very humiliated but decided to take it in her stride and join anyway. For months she didn't get a response, making her feel pretty hopeless, until one day she received a letter from Raymond Fernandez, who back then was still using his real name.

They got in touch and eventually became closer, and Raymond made her finally feel beautiful. Raymond realised she didn't have anything worth stealing so decided to go back to New York; however, Martha followed him and moved to New York to be with him. He was okay with her living with him, but he didn't like kids and wanted her to get rid of them. Martha was so blinded by love that she sent her children to the Salvation Army.

Raymond realised how devoted she was to him and decided to tell her the truth about what he had been doing. She agreed to act as though she were his sister and come with him and help him scam women. However, this was not the perfect plan, as Martha began to get jealous of these women if they got too close to Raymond.

One person who the two scammed together was Delphine Downing who sent multiple letters to "Charles" and later invited him and his sister to stay. People started to notice that Delphine and her child Rainelle had gone missing, and one person decided to call the police. They went to Delphine's house and upon realising it was empty, decided to wait there until someone arrived.

Raymond and Martha showed up later and were questioned. They claimed that Delphine took her baby to Detroit to see friends; however, police sensed something was wrong. They noticed lots of packed bags around the house as if Raymond and Martha were planning on going somewhere.

They searched “Charles” and found \$4000 on him, which was a huge sum, especially for the 1940’s, along with a list of the names of 17 women from 12 different states with check marks on some of the names.

Police then did a wider search of the house, looking everywhere, until they noticed part of the basement floor was covered with fresh cement. Police began to dig and found in the floor the bodies of Delphine and Rainelle.

Charles and Martha were arrested and they confessed very quickly. Raymond told the police that Charles was not his real name, and that Martha was actually his girlfriend. He explained that they were trying to scam and rob Delphine, but Delphine became suspicious of him as she realised he was wearing a toupee, which he wore to pull off the heartthrob look he was going for. This may seem like a small thing, but for Delphine, it made her realise how much of a fraud he really was and put things into perspective for her. If he was lying about his hair, what else had he been lying about?



However, this was not what caused what happened next. Delphine had told Martha that she feared she might be pregnant with Raymond’s baby; Martha became jealous and gave her some pills to “take care of the baby”, which were actually sleeping pills. Once she was passed out, Raymond shot her. A few days later they drowned Rainelle in the water they dug up when digging her mother’s grave.

There were many other women they had also scammed, but the victims were too embarrassed to tell police what had happened to them. Also, some of them may have been killed, but murder was not their motive, as they only killed you if you got in the way of what they wanted, and what they wanted was money.

Raymond ultimately confessed to killing a huge number of women - 19 in total - but Martha claimed to only know about 3. One of these murdered women was Janet Bay.

Raymond and Martha told police that Janet was coming onto Raymond too much. One day Martha walked in on her naked, waiting for Raymond and trying to seduce him. Martha got into a jealous rage and started calling Janet names. Provoked by this Janet supposedly slapped her and said “Listen! When Charles and I get married, you are moving out. I am not going to let you live in my house!”

Martha was so agitated by this that she grabbed a hammer

and brutally smashed Janet’s skull in, which greatly wounded but didn’t kill her. Raymond then proceeded to strangle her to death with a scarf while she bled out on the carpet. After they murdered her, they put her body in a suitcase and searched for ten days for a place to hide her body, but then ended up burying her in a hole they dug in the basement floor of a house they had rented, and covered the hole with cement, just like they had done with Delphine’s body.

After this they sent a fake letter stating that Janet and Charles were going on their honeymoon to her stepsister Mary. Mary was the one who had previously reported Janet missing after realising the letter did not sound like Janet and was typed out, even though Janet had never learnt how to use a typewriter. Police found the body where the couple had said it would be and asked Mary to come and identify it.

Raymond and Martha were put on trial, but only charged with one murder. The murder of Janet Fay. This, however, was enough for them to be sentenced to death, and on March 8th 1951, they were both electrocuted.

Raymond’s last words were: “I want to shout it out! I love Martha! What do the public know about love?”. Martha’s haunting last statement was “My story is a love story, but only those tortured with love can understand what I mean. I was pictured as a fat, unfeeling woman. I am not unfeeling, stupid, or moronic. In the history of the world, how many crimes have been attributed to love?”

Was this a tragic love story, or the gory tale of a heartless, murderous and scheming couple?



The ongoing pandemic has made us appreciate science, no doubt about that. The lockdowns, testing, track and tracing, vaccinations. It has all been vitally important, and literally life-saving, which is maybe why we haven’t been able to appreciate all the amazing advancements brought about just for the sake of it. The graveness of the situation made us forget that science, with all the constant world-changing that it does, should still be a source of joy and thrill for those involved, that it should also make us wonder about questions that are not going to save lives, but ‘only’ satisfy our curiosity.

The past year has had its challenges and I believe we all need, and deserve, more things to be excited about. I am sure science can be one of them, as the amazing writers involved have proven with the fascinating set of articles.

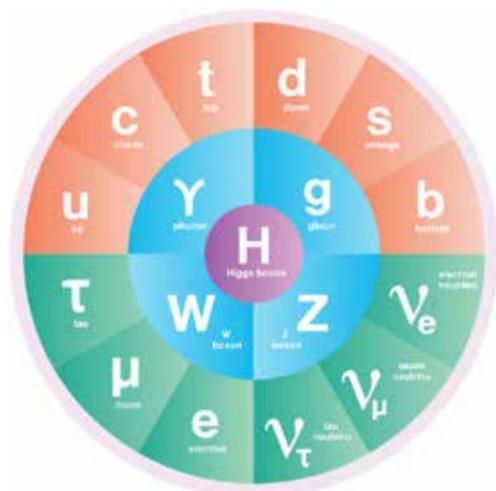
Happy reading!



Julia Betkova (FVI)
Science Editor

The Standard Model of Latin

Hugo Mackay (FVI)



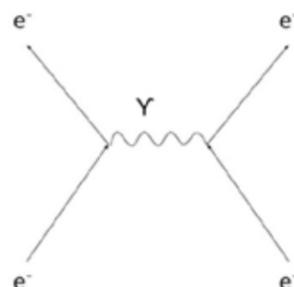
“Hello, Hugo!” She greeted me with a broad smile and unbroken eye contact as I walked apprehensively into the classroom. This would be my first and last English greeting from Dr. MacLeod — to be replaced thereafter by either a standard “Salve, Hugo” to me or a “Salvete, omnes” addressed to the class as a second-person, plural, third declension noun in the vocative case. I had enough Latin background from Canada to pronounce my ‘v’s as ‘w’s, and to appreciate the infamous ‘Caecilius est in horto’ memes from the first of the Cambridge Latin Course books. But while I had only begun to scratch the surface of Latin, my new peers had already finished the entire CLC trilogy. I took my seat among my new classmates and joined Dr. Macleod’s lesson on the ablative absolute with intimidation and eagerness.

I spent the next few months binge-watching the Latin Tutorial channel on YouTube and meeting privately with Dr. MacLeod during Wednesday lunches. As I filled page after page in my notebook with tables (the matrix-like data format that I felt best ensnared the innumerable axioms of Latin), a world of cases, declensions, moods, and conjugations came into focus before my bleary, sleepless eyes. The expansive list of grammatical constructions revealed a beautiful cumulativeness and internal consistency. The generalization of more basic forms to synthesize a new one made the study of each construction feel like a mathematical proof.



During the first pandemic lockdown, working through my weekly Latin translations in the kitchen nook at home, I shared my love of the language with my mum, a Spanish speaker who had a beginner’s level of Latin through self-study. While our interests are on opposite ends of the humanities-to-science spectrum, we truly enjoyed finding common ground through Latin as we tackled difficult passages together.

I found that each Latin clause could be represented as a Feynman diagram, a system of actively interacting fermions (nouns) via bosons (verbs), annotated by states (adjectives). I began envisioning these diagrams while translating, which helped me track and remember the numerous parts and interactions. Especially since words are commutative in Latin, one must read an entire sentence before being able to interpret it, requiring a sort of RAM, something with which diagrammatic translation helped. I was struck by the symmetry not only between grammar and math, but also words and physics; the Latin language could be analogized to the Standard Model of Particle Physics!



Like Roman numerals, Latin is not efficient. Word order is arbitrary, opening the door to ambiguity which must then be resolved through extensive lexical corroboration. But it is this ambiguity and the existence of – in most cases – a single correct translation that make each sentence a unique puzzle, akin to the factorization of polynomials. I suppose this is one discriminant between a traditional language and mathematics: the element of redundancy, unnecessary variation, humanity. Mathematics is used to describe and solve puzzles, but Latin is a puzzle itself, and more.

What are the Sources of Mental Health Issues in the World?

Andreja Zivkovic (FVI)

‘A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community’ is the World Health Organisation’s definition of mental health. The Mental Health Foundation has defined a mentally healthy individual as one who has the ability to learn, feel, manage and express a range of emotions, and form and maintain good relationships.



Lack of these characteristics describes a person who is dealing with mental health issues. Globally more than 264 million people suffer from depression, 45 million from bipolar disorder, while 20 million people are affected by schizophrenia and other psychosis. Some statistics suggest up to 50% of people will deal with mental health problems during their lifetime, while only 40% of them will reach out for help. These figures should be considered alarming and in need of immediate action. Research has already taken interest in the varied biological and environmental factors which stem these problems. This work will explore the known and unknown facts about the effects of prenatal damage, infections and substance abuse on mental health, as well as how childhood maltreatment, grief and social media influence mental wellbeing.

It is common knowledge that the list of advice for pregnant women is lengthy. Many, however, do not know that the recommended cautious approach is due to the cruciality of the prenatal developmental period, as this stage of life is marked by phenomenal foetal plasticity. A wide range of exposures the child might experience have been linked to long-term changes in brain development and behaviour, especially regarding physical and psychiatric health. Factors research has been especially interested in are nicotine and alcohol consumption, nutrition deficiencies, and malnutrition, as well as both excessive maternal weight gain and obesity. These factors have made marks on gene expression, which cause permanent changes in the baby. That considered, precise mechanisms of these relationships are not familiar due to the complicated nature of risk factors. For example, the influence of maternal alcohol consumption on the child heavily depends on the polymorphisms for the genes that encode for the enzyme alcohol dehydrogenase, which breaks down alcohol consumed by the mother. As the exact links between adverse conditions in the prenatal period and potential damage are unknown, a lot of care and attention should be given to women in pregnancy in order

to reduce the risk of future general health problems of the child.

Recreational drugs are widely spread across the population, with nearly 10% of English people aged between 16 and 59 having used them in 2020. Their effect is marked by the change in the way neurons send signals, as substance molecules attach to them. A key chemical in our body - dopamine, which is released during essential actions, such as food intake and sexual activity, informs the body of the survival characteristics for these functions. Recreational drugs increase dopamine activity, making the association with happiness, which quickly develops into hard-to-escape addiction. Besides addiction risks, harm imposed by substance use is described by the self-medication hypothesis.

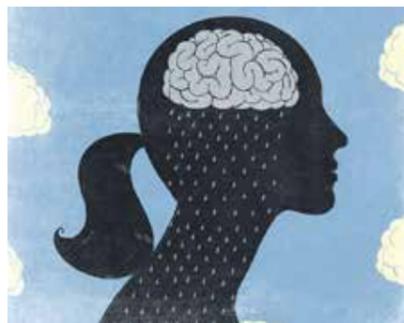
This hypothesis suggests that people with existing mental health issues use substances intending to reduce their symptoms. The research article by Leeies et al. suggests that the 21.7% participants suffering from PTSD (14.4% of which self-medicated with alcohol alone and 7% of which self-medicated using drugs and/or alcohol) have a higher likelihood of having attempted suicide at one point in their life. Moreover, borderline personality disorders and dysthymia were showed to be significantly correlated with self-medication. Contrastingly, some experts label this kind of substance use as a symptom of the mental health problem, rather than its cause. The uncertainty of yet another cause-effect relationship could be resolved by careful psychological approach, which would try to determine the link based on individual stories of patients, with a highlight on further avoidance of such substances, rather than an attempt to apply a one-size-fits-all solution.

Childhood maltreatment is defined as the abuse and neglect of all people younger than 18 years of age. It includes physical, psychological, sexual abuse as well as neglect, negligent treatment and commercial and other types of exploitation. The unnerving figures state that 1 in 3 children experiences psychological and 1 in 4 sexual and physical abuse, while 16% of children are neglected. Maniglio’s and other works note that childhood sexual abuse leaves a devastating mark on one’s mental health - increasing risk rates for depression, anxiety, eating disorders, PTSD, sleep disorders and suicide attempts. The method of these studies involved individuals recalling their own experiences, which always raises concerns regarding the objectivity of the results. Another study carried out by the University of Birmingham revealed that 8.5% of individuals who experienced childhood maltreatment face mental health problems (mainly depression (6.1% of individuals) and anxiety (3.2% of individuals)) in comparison to 3.6% of members of the control group who were not exposed to childhood maltreatment - an overall 3-fold increase.

Unsurprisingly, the most notable risk increase was found for those with a pre-existing diagnosis of depression and severely mentally ill patients who had a prescription for mental health treatment in the year before their study entry. Upon considering the number of maltreatment victims and the significantly increased odds ratio, it is not daring to claim childhood abuse and neglect should be suspected as vital, however not universal, causes of mental health problems.

Grief is distress experienced by many animals such as dolphins, elephants and naturally humans. It is a rather personal and unique experience and there is no comprehensive explanation of grief nor cure for it.

Kübler-Ross tried to make sense of grieving by elaborating on its 5 stages - denial, anger, bargaining, depression and acceptance in her work 'On Death and Dying'. Contemporary psychology claims this model to be outdated, inaccurate, as well as unhelpful in the grieving process. Despite this, the model is still present in popular culture, even finding its way into children cartoons.



An American population-based study revealed that the sudden death of a loved one is the most frequently reported potentially traumatic experience. This comes as no surprise as close relationship influence physical, cognitive and emotional processes in everyday life.

A study carried out by Keyes et al. showed that 50.3% of participants have experienced the unexpected death of a loved one. A significant number of people, despite the ranging number of notable traumatic experiences, have labelled death as their worst one. Moreover, unexpected death was associated with increased odds of mood and alcohol use disorders, most common being alcohol usage disorders (35.9%) in 6 age groups after 45 years of age and major depressive episodes (23.7%) observed in 12 to 14 (out of 14) age groups. Additionally, dysthymia was observed in 6 and manic episodes in 5 age groups. From the presented data it would be sensible to label unexpected death as a potentially weighty traumatic event in a patient's life, especially due to the intensity and importantly diversity of the emotions one might be faced with.

There is no doubt about the vast presence of social media in modern life. An average internet user daily spends 144 minutes on social media sites. Despite the unknown correlations between social media usage and mental health, concern has risen about the deteriorating effects of social media usage. Research conducted by Rosen et al. linked Facebook usage to predictions regarding major depressive disorder, bipolar-mania, narcissism, compulsive behaviour and antisocial personality disorder.

Both individual and social theories have tried to explain these relationships. An example of an individual theory is the theory concerning sedentary behaviours and mental

wellbeing. Sedentary behaviours are all energy inexpensive behaviours such as lying or sitting, which follow activities such as television watching, computer use, playing video games and passive reaction. The Sanchez-Villegas et al. study found that users with the highest levels of sedentary behaviours were 31% more likely to develop mental health issues.

However, social media has not been present for long in society and its characteristic of rapid change is increasing the difficulty of concluding solid scientific research. With that in mind, there is a notable increase in awareness about the inauthenticity social media brings with itself, as well as how to use this potentially great piece of technology with care and respect. Perhaps a safe online space will greatly reduce the risks of mental health deterioration that has caught professionals' eyes.

All things considered, there is still a lot of research that needs to be conducted in order to establish concrete explanations of mental health issues. The difficulty of this task will always lie in its complexity and incredible individuality. A one-size-fits-all solution is rather unlikely to be found.

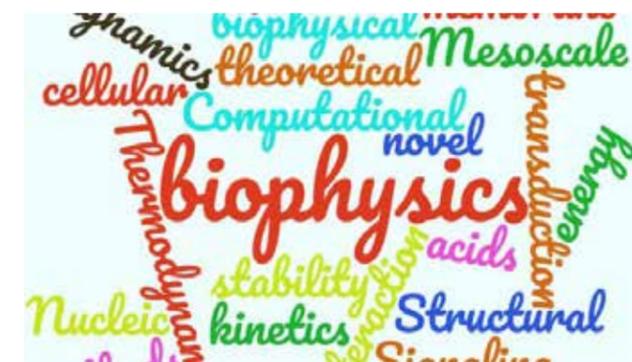
Perhaps after the identification of all potential risk factors, especially ones as great as abuse, neglect and death, mental health professionals will have to translate research findings into specific patient cases. Successful treatments of these complex problems might require exactly that kind of deeply personal approach.

Let that cat out of the bag! Struggling with the Suffocating Nature of Stubborn Scientists

Jessica Kitchen (FVI)

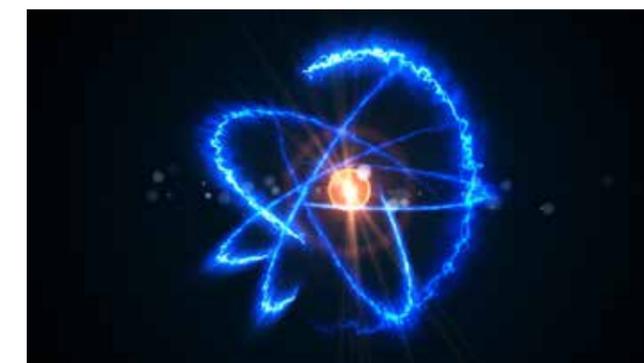
You've probably heard of Erwin Schrödinger or his cat; if you haven't, have you been living in a box? His cat founded the basis for superposition in quantum mechanics, a field of science that has seen staggering growth since Schrödinger's time. The lesser known thing about Schrödinger was his interest in genetics before it was cool. Inspiring the equally famous Batman and Robin of biology, Watson and Crick, Schrödinger's lectures (and ultimately book) *What Is Life?* helped to build the very foundation of genomics, a biological field as diverse and exciting as quantum mechanics. But physics claimed Schrödinger, and now he's known not as the genius, who was able to extend scientific horizons in not one, but two scientific fields, but instead as the guy who wouldn't pronounce his cat dead.

But science's toxic possessiveness of its scientists doesn't end there. Take Luigi Galvani, known for his discovery of bio-electromagnetics. A biologist or a physicist? Hermann Von Helmholtz, absolutely necessary for our understanding of physiology, psychology and conservation of energy, to name a few. A biologist or a physicist? Perhaps these people, who already made such impressive contributions to our understanding of science, were being limited by their need to conform to one science? Is it possible that they were unknowingly the first of a new breed of scientists - biophysicists?



See, ask any physicist, and they'll confidently tell you that physics puts the fun in fundamental science. They wholeheartedly believe physics is the father of all sciences, and that all science is entirely dependent on it. As Ernest Rutherford so concisely put it: "All science is either physics or stamp collecting." You need to only spend ten minutes in a room with physicists to hear a joke made at the expense of a mere biologist. The self-centred nature of physicists makes it no surprise that early physicists believed that the Sun revolved around the Earth. It may be that physicists have spent so long with their heads in the stratosphere, it only seems natural. But even the boldest biologist wouldn't claim that biology and chemistry could exist without physics. Even the most miserable of mathematicians wouldn't pretend that physics has less scope on the world than maths. Physicists' egocentric view of the universe may not be so far-fetched after all.

Physics is at the root of everything. In fact, one of the first recognised discoveries of modern science was all thanks to the rather memorably named Galileo Galilei, a physicist. His discoveries inverted contemporary scientific beliefs, generating the intense momentum in scientific discoveries we see to this day. The Bohr model of the atom, the discovery of neutrons, Einstein's genius principles of relativity and the Big Bang theory are few among masses of great scientific discoveries, and they all herald from physics. These discoveries are not simply a satisfying, if unnecessary way of understanding the universe; physics is necessary for technological advancements. We wouldn't have made it anywhere near the Moon without physicists, and the continuing 'mission to Mars' - a future milestone and a long-time obsession - will never take off without physics.

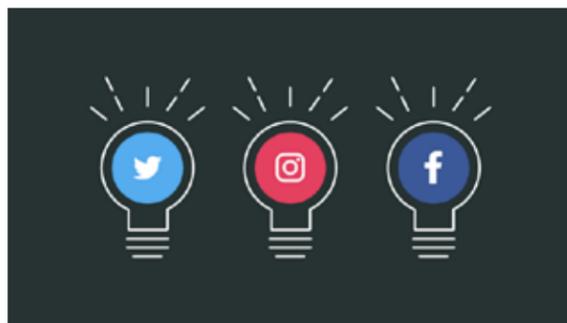


And it's not just about what physics can do in the future, but what physics has already accomplished. Almost every single piece of technology - from the ancient pager to the most up-to-date smartphone - is entirely dependent on physics working the way physicists know it does. Without the centuries of tireless work from physicists, it would not be possible to harness the natural world and make it work for us to the astonishing extent we have.

What physicists don't brag about at Christmas parties, is that they know embarrassingly little about the multitudes that do (and don't) exist. Our universe is as much of a mystery to devoted physicists as an inquisitive child. The unimaginable scale of the cosmos lends itself to potentially infinite exploration - we've really only just begun.

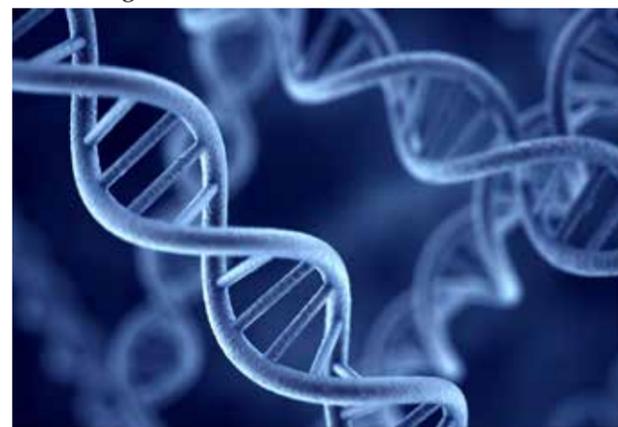
Years of gruelling scientific research - and this isn't just from physics - have uncovered less than 5% of the universe. And gravity! Most high school students could tell you that the acceleration due to gravity on Earth is 9.8 Newtons and even carry out some calculations to prove it. However, the embarrassing truth is, that despite Einstein and Newton's ridiculously clever work on gravity, we still have no idea what it is. Not really.

Perhaps one of the most interesting unanswered questions of physics is just how did living life evolve from non-living? Physicists claim that everything we know originates from the Big Bang (still desperately trying to work out what, if anything, came before) but how exactly did a collision of who-knows-what lead to matter and ultimately conscious life? So, perhaps the answer lies within biology. After all, biology's self-declared main goal is to find out how life began. If only physicists were prepared to extend the olive branch.



So perhaps physics is not as invincible as it thinks it is. Surely, the fact that physics cannot advance without biology suggests the superiority of biology. And although physicists have managed to help us improve the quality of life, biology allowed us to survive. Biologists seem to really bear the brunt of scientific feuds, despite their absolutely necessary work. You could (somewhat radically) argue that biology, in the form of agriculture, was the first science to evolve. Farming allowed humans to survive during periods when food was not readily available.

Biology, in more recent years, has allowed massive medical research programmes. This research has been at the heart of the recent exponential growth in medical knowledge in a plethora of areas, including medicines, antibiotics (which humans unknowingly used long before Galileo picked up a telescope) and surgeries, to name a few. This research has transformed life on Earth in possibly more palpable ways than physics, saving countless lives and allowing others to thrive. Research into genetics has sparked a revolution in personalised medicine and phylogenetics, which has the potential to save many more lives. Genomics has also allowed us to journey further back into our history, deepening our understanding of life and its origins.



Much like physics, though, biology has a long way to go. Most people are familiar with the concept of evolution, thanks to biologists. But not even a Nobel-prize-winning biologist could tell you the precise moment when life began, or even what that life was. And although physicists control the search for extra-terrestrial life, biologists can't deny that the prospect intrigues them. In fact, a niche interdisciplinary science has emerged to beat both physics and biology to the aliens - astrobiology. Should we not just cut the unnecessary tip-toeing around and declare this a branch of biophysics? Another question where biology has seemingly hit a dead end, is the folding of proteins. Although this may not seem as exciting as trying to recreate Alien in a lab, more research into this could potentially allow us to programme cells to be more efficient. Combining biology and physics could potentially crack the code to life.

And this isn't a problem that can be solved by a group of mild-mannered scientists deciding to work together for a year. Our understanding of complex biological systems has come so far over the past century, but with the help of biophysics, massive amounts remain to be discovered. Molecular motors are just one area already gaining great traction. Cell biology is yet another area that could massively benefit from the work of a biophysicist. Space exploration holds a whole new world of possibilities, if biophysicists could work on finding a way to sustain life once we actually get there. If we aim to further cultivate our scientific understanding, we need biophysicists.

Despite the fact that scientists may be unwilling to respect other disciplines, they will begrudgingly agree that every science has made huge contributions to the society. This co-operation of scientists is not limited to biologists and physicists. Interdisciplinary science is defined as the combination of two or more scientific disciplines; therefore, there must be multitudes of interdisciplinary studies. Biophysical chemistry, mathematical biology and quantum information processing are three of many interdisciplinary sciences already gaining traction. In fact, most of the scientific greats we talk about were polymaths: Nikola Tesla, Aristotle, Pythagoras, Archimedes and Newton, to name a few. It's obvious that the stimulation of multiple disciplines is beneficial to the brain, so why must such a territorial divide exist between branches of science?



Could it be that scientists' superiority complex is hindering scientific growth? Could the fusion between physics and biology allow for a second enlightenment? Physicists and biologists should celebrate Schrödinger the way physicists and chemists celebrate Marie Curie, the only person to win Nobel prizes in both disciplines. Schrödinger's biological prowess should be embraced, not suppressed. Physicists: it's time to let the cat out of the bag; biologists: don't get caught (cat)napping.

The Commercial Release of the Boston Dynamics' Robots

Riley Gray (FV)

When you think of robots, you may think of T1000s hunting down Sarah Connor, or the sand blasted droids of Tatooine. One thing you probably won't be thinking of is dancing; but in one of Boston Dynamics' recent publicity stunts, their troupe of mechanical marvels danced to the song "Do You Love Me?" by The Contours. This feat of engineering prowess not only served as marketing to the scientists and engineers who work for Boston Dynamics, but it also showed how dexterous a remote-controlled robot can be.



The work done by Boston Dynamics has helped to progress robotic science by tenfold in the last 29 years since its founding. It all started with the *Big Dog*, a quadrupedal and sensor-based robot that could traverse rough terrain and was made for military usage as a pack horse. Legs were chosen over wheels because of the rough and rigorous usage that the robot must endure in a warzone, which wheels can't. Standing at 3 feet long and 2.5 feet tall, it was capable of carrying multiple army rucksacks and combat gear. In 2013, a dexterous arm was added as a modification to the robot to allow it to pick up and throw objects. Created in 2004, the project has since been discontinued, as the gas motor was much too loud to be used in a combat zone.



Two new robots, *Rhex* and *Sandflea*, were created in 2007 and 2012. *Rhex* was created as a small and all-terrain robot with six legs, made of half-arcs. It was capable of travelling in low tunnels and climbing sharp and loose terrain. It was even capable of using inverted locomotion if flipped. *Sandflea* was another small robot that drove with wheels, but could launch itself 10m (or 33 feet) into the air.

In 2011, Boston Dynamics created *Wildcat*, the world's fastest quadruped robot that ran 16 miles per hour. Its power source was contained inside of it instead of being attached to cables,

meaning it could be an actually viable method of high-speed robotic locomotion in the outdoors, rather than being plugged into a power source on a treadmill. Its older brother *Cheetah* was, at 28 miles an hour, actually faster but was tethered to a power source. *Wildcat* was capable of manoeuvring when running at such high speeds, as well as of getting back up after falling or stumbling.



In August 2020, the scientists at Boston Dynamics' headquarters in Massachusetts released a robot's best friend, *Spot*. *Spot* is a remote controlled, quadrupedal and all-terrain robot. Due to its rugged and tough design, it can traverse unusual and rough terrain such as rocks, loose gravel and curbs with ease, while artificial intelligence allows *Spot* to sense obstacles so that it may find a better route. *Spot* is also capable of climbing stairs and opening doors with its singular, dexterous arm. With a run time of 90 minutes and a long-range radius, the mobile machine is capable of doing work that would be too hazardous or expensive for a person to do, such as scouring rubble after a natural disaster or a fire, or testing and scouting areas which contain lethal chemicals or toxic radiation. *Spot* is not a small investment as it costs \$74,500 (or £54,310), but even with a price this large it could be a favourable worker for industrial jobs, such as mining and nuclear power.

Uncertainties in a Quantum Perspective

Natalie Yeung (FIII)

The truth is the more we discover and learn about the world, the more confused we are. Most of the advancements are purely contradictions with what we thought we knew before. You cannot be certain of anything in life. Putting religion and superstition aside, philosophers have pondered whether life was as straightforward as we thought.

Erwin Schrödinger thought about this very concept of uncertainty from the perspective of quantum mechanics. Is it possible that the idea of uncertainty is indeed ingrained and embedded in the physical foundations of the universe?

We've seen examples of theories physically existing in our universe. Time is an abstract concept, people don't usually think it exists, but scientists found that it may very well be an effect of entropy, the measure and direction of disorder in the universe.

And sure enough, we see the concept of uncertainty when we zoom into a scale unlike any other - when we delve into the realm of quantum mechanics. This very problem emerges in quantum superstition.

Schrödinger's cat is a thought experiment used to illustrate and explain the paradox of quantum superposition. A cat was placed inside a box, which contains some dangerously radioactive material. These can explode anytime, which triggers a Geiger counter, which breaks a vial that contains poisonous gas and kills the cat. The problem is we cannot predict when, or if, the radioactive material is going to decay; in other words, we are not sure of the state of the radioactive atom. Similarly, we don't know whether the cat is dead or alive... with only probability and mathematical equations at hand, the cat is in many states. It is both dead and alive, and it is only when we open the box, we would collapse nature to one reality, showing us the actual state of the cat.

The reality, in this case, is discovered by a conscious observer on the outside. But what if our lives are in this state right now? In the previous case, we are seeing a 50-50 chance that we open the BOX to find the cat dead or alive. It is determined by us. If we zoom out, we find ourselves too in this same paradox. There is also a 50-50 percent chance that WE open a box with a cat that's alive or a cat that's dead. The "cat", or "object of superposition" is us in this case. Therefore we are in another layer of the paradox, and that suggests that there must be a reality that determines everything that is the way it is supposed to be, or else this paradox would be infinite, up to the exact fabric of the universe.

Without this in-existent observer, life is just... probability. We are forever stuck on the notion of when this uncertainty ends.

On a quantum level, this is solved by a simple experiment known as the double-slit experiment. Physicist Ananthaswamy tried getting a board and firing an electron at the exact middle of the slit. It is expected that the electron will budge one way, but Ananthaswamy saw two electrons through the slit and they came back together afterward, this suggests that particles can be at different states at once. Where it is extremely hard (quite impossible) to find

two states of a particle at the same time (wave vs particle), it fundamentally changed our understanding of quantum mechanics. Particles can go to different states.

We may be overlooking the importance of uncertainty in the quantum world. Another conundrum that has arisen is wave-particle duality. In the 1920s, Physicist Louis de Broglie made a revolutionary observation: since light has energy, momentum, and a wavelength, and matter has energy and momentum, maybe matter has a wavelength, too. Could matter be a particle and a wave at the same time? It behaves like a wave, but when observed under a microscope, all of that function collapses and it behaves like a particle.

Both of these experiments have no clear answers. There are a few generally accepted types of hypotheses, including but not limited to:

The Hidden Variable Hypothesis

"God does not play dice," said Albert Einstein. He thought that probability simply cannot be the basis of the universe.

These people believe that hidden far beneath what is seen and detected by us, there are deterministic parameters that govern the very basis of particles, including their time, velocity, momentum, energy, wavelength, etc.

Many Worlds Hypothesis

Whenever a quantum function collapses, rather than it being collapsed to one reality, reality itself is split. That is, every time faced with a decision, a new universe was created, so there are infinite universes and combinations accounting for all the different variations that the particles can go into. All of the combinations of these worlds are quantumly entangled, meaning that they may be spatially separated but they are still described in relation to each other.

Emergence

This theory suggests that things like position and energy simply don't exist until we measure them; that is, the wave function itself is a potentiality, and when it collapses it is formed, the value has emerged to the observer.

Holism

This theory states that the waves and particles on their own are governed by two different terms. Whereas we believe in atomism, which is breaking down particles into their basic components to learn more about them and how they work. Holism believes that it is more insightful to look at it from a whole perspective so that you can see how things come together. "The particle-like aspect is determinate and fixed, it is located at one place in space and time and limited to the domain of actuality. That is the part that a conscious observer can see and measure, but the wavelike aspect becomes fixed only in dialogue with its surroundings - in dialogue with an experimental context or in relation to another entity in measurement or observation." So the wave is essentially in the world of probability. These two combine and give us the interesting phenomenon of uncertainty.

What do you think? Whatever hypothesis we should choose to believe in, it remains a mystery to intrigue us in the next few centuries. We certainly know that we will never know, but, at the same time, we may certainly not know that the answer is already in our hands....

Mitochondrial Eve

Julia Betkova (FVI)

It seems highly unlikely that we have all descended from a woman living in Africa sometime between 99,000 - 148,000 years ago, yet that's exactly what Rebecca Cann, Mark Stoneking and Allan Wilson found out when they published a worldwide survey of mitochondrial DNA (mtDNA) in Nature magazine in 1987. This woman, the most recent common ancestor of all humans alive today through the maternal line, became known as the Mitochondrial Eve.

It is widely known that DNA is passed on from both parents and recombined to create a unique mix that determines a person's eye colour, height, or likelihood of developing certain diseases. This DNA is stored in the nucleus and packaged in chromosomes. However, we also have some DNA in mitochondria, which are bean-shaped organelles producing the majority of energy our cells need. Unlike nuclear DNA (nDNA), mitochondria, and therefore also the DNA in them, is inherited only from the mother. The second big difference between the two kinds of DNA is in their complexity - 37 genes of mtDNA are only a small fraction of 70,000+ contained in the nucleus. This is the reason why mtDNA is relatively easy to analyse and thus was completely sequenced in 1981, two decades before the completion of the Human Genome Project.



MtDNA doesn't get recombined, so by all means it should be just passed on as it is. That's it, if it weren't for mutations. They occur randomly, but at a relatively constant rate, which allows scientists to calculate how closely two individuals or species are related. For example, if it's known that mtDNA acquires one mutation every 1000 years and there are at 9 differences found between the two samples being analysed, it can be concluded that the two organisms emerged from a common ancestor 9,000 years ago.

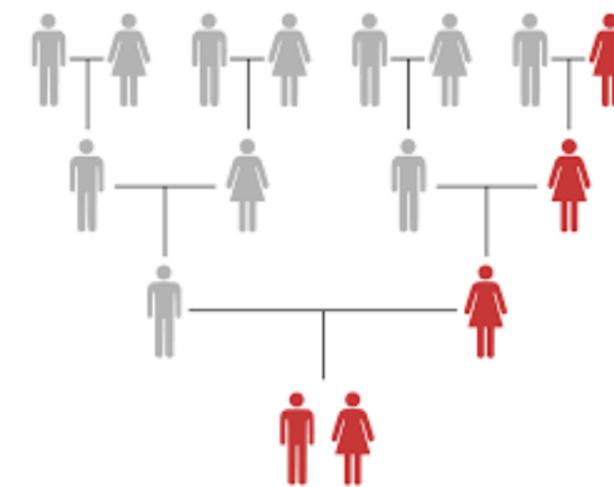
This way, Cann, Stoneking and Wilson analysed 145 mtDNA samples that had been purified from human placentas. Placentas were used because they are rich in DNA, which was a necessity, since back in 1987 the polymerase chain reaction (the technique used to amplify the genetic material) hadn't been invented yet. Two-thirds of the material were collected within American hospitals, the rest came from Australia and New Guinea. Very important was the diversity of the sample, which comprised 5 geographic regions. 20 placentas were collected from Africans from the sub-Saharan region; 34 from Asians from China, Vietnam, Laos, the Philippines, Indonesia and Tonga; 46 from Caucasians from Europe, North Africa and the Middle East; 21 from aboriginal Australians; and 26 from aboriginal New Guineans.

This research not only proved that molecular evidence was crucial to push the study of human evolution beyond the incomplete picture offered from fossil records, but also deemed Africa as the 'cradle of civilization'. Before that,

scientists had two theories about the geographical origin of humans. The multiregional hypothesis proposed that anatomically modern humans evolved in numerous locations in Asia, Africa, Indonesia and Europe since around two million years ago. However, the results clearly pointed towards the out-of-Africa hypothesis - that modern humans migrated from Africa across other continents. This was because out of all placentas analysed, those from African women showed much more genetic variation than non-Africans, which suggested that African populations must be older in order to have had time to accumulate more mutations.

Cann, Stoneking and Allan came to the conclusion that all mitochondrial DNA can be traced back to one woman - Mitochondrial Eve. Her name clearly refers to the biblical figure, which tends to lead people to some inaccurate conclusions. The Mitochondrial Eve, unlike the one from the Bible, isn't considered the first woman or human alive. And she isn't even a specific individual either - as mtDNA lineages eventually die out, this title will be passed onto a new woman who lived more recently in time.

How does an mtDNA lineage die out? Since mitochondria are only passed down from the mother, having a son is, in terms of mtDNA, a dead-end street. His children won't inherit his mtDNA; therefore, the lineage will be lost with him. This suggests that other contemporaries of Eve may have descendants alive today as well, it's only that they don't have any of them descended just through female links. Eve is therefore the only woman living in her time to have a daughter in every generation until now, which is, considering how long ago she lived, pretty impressive.



From the Editor...

I am delighted to introduce the Creative Section of the Galley this winter.

The beginning of our new academic year has clearly sparked the imagination of many of our pupils. With such a wide variety of works, from multiple year-groups of our senior school, I am sure there is something here to appeal to every reader and to allow for an escape to a new world.

I would like to congratulate and thank everyone who contributed their unique perspectives and ideas to our magazine, as they were a pleasure to look over and engage with, and will undoubtedly bring similar joy to our readers.

As we make our way through these chilly months, I hope you can get cosy somewhere warm to enjoy these fantastic works.

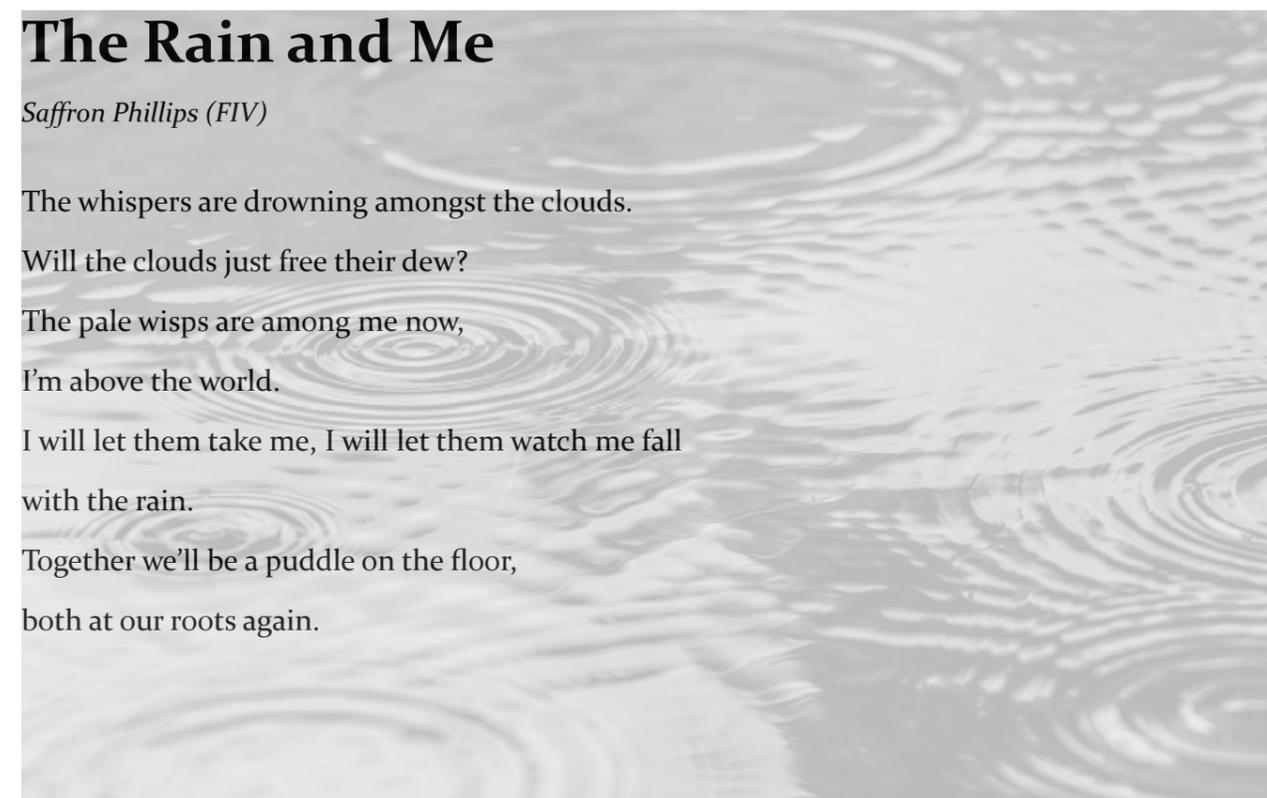
Brishti Sengupta (FVI)



The Rain and Me

Saffron Phillips (FIV)

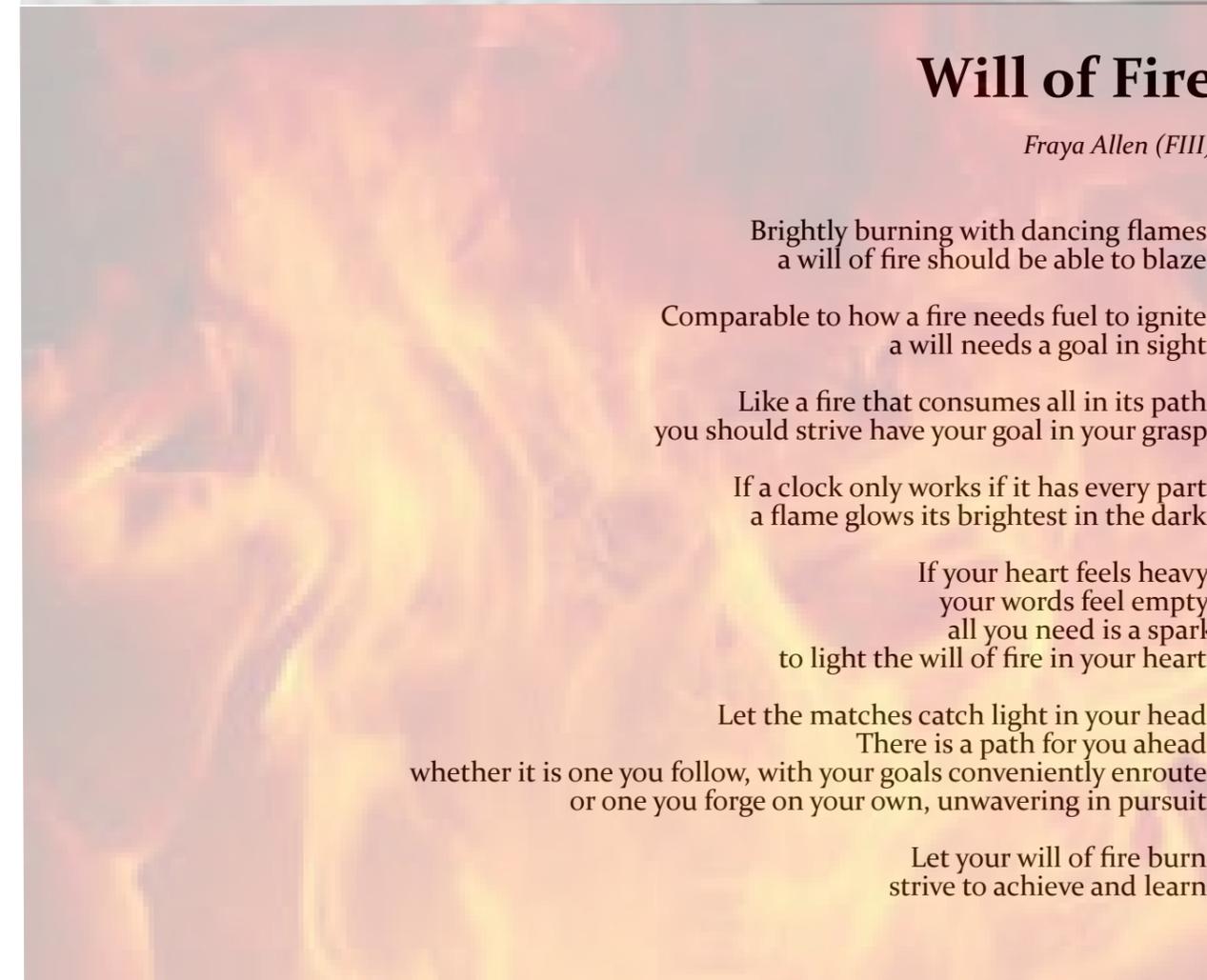
The whispers are drowning amongst the clouds.
Will the clouds just free their dew?
The pale wisps are among me now,
I'm above the world.
I will let them take me, I will let them watch me fall
with the rain.
Together we'll be a puddle on the floor,
both at our roots again.



Will of Fire

Fraya Allen (FIII)

Brightly burning with dancing flames,
a will of fire should be able to blaze.
Comparable to how a fire needs fuel to ignite,
a will needs a goal in sight.
Like a fire that consumes all in its path,
you should strive have your goal in your grasp.
If a clock only works if it has every part,
a flame glows its brightest in the dark.
If your heart feels heavy,
your words feel empty,
all you need is a spark
to light the will of fire in your heart.
Let the matches catch light in your head.
There is a path for you ahead,
whether it is one you follow, with your goals conveniently enroute,
or one you forge on your own, unwavering in pursuit.
Let your will of fire burn,
strive to achieve and learn.



Photography

by Adrian Lober (FIV)



Higher Photography



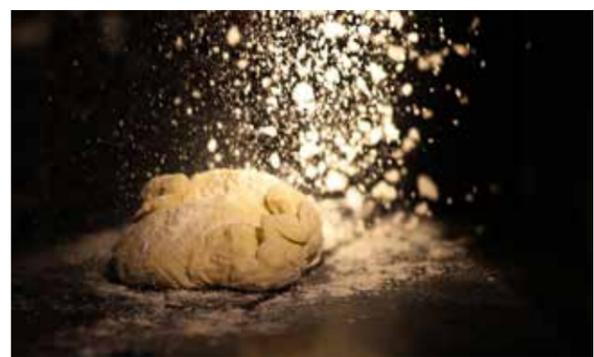
Ben Montgomery (FVI)



Keith Tam (FV)



Karolina Pavilkova (FVI)



Keith Tam (FV)

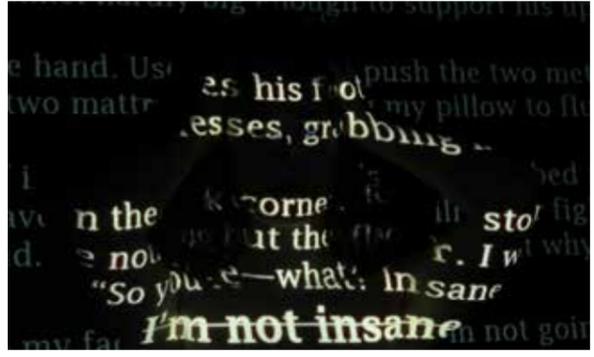


Sebastian Verhoeven (FV)



Annabelle Clokie (FV)

Higher Photography



Amy Duguid (FVI)



Kate McIntosh (FVI)



Millie Dillon (FVI)



Andrew Martin (FVI)



Rachael Rutherford (FV)



Oliver Williams (FVI)

Sevenling (Reflection)

Brishti Sengupta (FVI)

Glass seems manmade.

Harsh rays, concrete slabs, the suffocating heat

of crowds and expectations and everything we manufacture.

Water is natural.

Holding the blue of the sky, the green of the trees, the soft warmth of the sun.

Making it all the more strange-

when I turn away, my reflection stares straight back at me.

Sevenling (Endless and Tranquil)

Megan Knight (FVI)

Time is endless in this place,

melancholy rain splatters,

like teardrops on her face.

A pond, still, waves gentle and bright

yet so dark; with histories darker.

Endless and tranquil,

she sinks beneath the water.

Editorial

What a year it has been - The Olympics, Euros and the rise of a new star in British tennis - a stark contrast to last year. As we finally begin to edge away from the constant COVID restrictions burdening the world of competitive sports, we can look back and remember 2021 as the year that put Scotland back on the international football scene.

Not only that, but much further afield, we watched on with pride as homegrown talent scooped up gold at the Olympics, despite the five years of waiting and more recent setbacks. This time in sports completely mindblowing and foreign to us - some of which, Isla Cooper discusses later on in this section.

So whether you are interested in the rise of Emma Radacanu - now a household name, I am sure you have heard about by now - or more local sporting success from the world of rugby and cycling, you are in the right place. Whether you are reading this while riding the local mountain biking trails or are 10km away from the finish line at a gruesome marathon, enjoy.



Olivia Smart (FVI)

Wise Words from Atticus Finch

Peter Daniels (FIII)

"You never really understand a person until you consider things from his point of view... until you climb into his skin and walk around in it."

I think that when people think about the difficulties of life, they approach it with almost some sort of bias, whether they know it or not. And when reflecting about your own life should you think that, sometimes, you are extremely lucky? The quote above can certainly prove this point and over the following paragraphs, I hope I can prove it too.

As a young boy, around the age of 9 or 10, the prospect of school and co-curricular activities was quite amazing to me, the idea of going to school every day to simply have fun with my friends, and learn a bit on the way, then to go after school to play my favorite sport, rugby. Life was good, I never really had the time to consider how others might feel. Possibly those that are new to the school, people whose parents are split up, or have issues at home, or simply those that are just feeling a little bit lonely when moving up to Junior School. Nowadays, it doesn't seem like a big thing, moving to a new year in school, becoming older, getting out of the prep school that I had known for 5 years... but it felt like a massive thing back then with a much larger array of responsibilities.

So I think I began, a little, to think about others more than myself, because I started to understand that little bit more that I am extremely lucky to have both parents living together, as well as joining the school in primary two, so having a good group of friends and not often feeling lonely. However, I struggled to get my head around stepping into another person's shoes and seeing life from their perspective. But I think if there was one thing that I'd tell my 10-year-old self it's that it is probably one of the most important things you can understand in life, a large part of building friendships and sustaining them, as well as playing a vital role in understanding others. This could be as simple as a small argument with your friend over who should get the last chocolate bar, all the way up to a court case where you could be trying to understand why something happened, looking at it from the perpetrator's perspective could change everything.

I think that when I really began to understand this is with rugby. I absolutely loved rugby in Junior School and I was about 5ft 2, which was quite above average for my age at the time, and as rugby is a contact sport, it gave me a rather large advantage. I could score quite a few tries and just overall enjoy it, and not worry too much about 'big guys' running at me; however, this was not the same for everyone. When we were playing matches against other teams for the first time, I didn't find it all that scary facing some of the bigger guys in the other team; but, after a couple of matches, I could see that some of the smaller guys in the team struggled a bit and were slightly scared of

the prospect of tackling a guy half a foot taller than them.

As somebody a little taller than others I found it hard to understand, but as a team we tried extremely hard to make sure the big guys from teams such as Merchiston and Edinburgh Academy ran at our team's bigger guys and it worked, so we did it again and it worked, and this same thing worked over and over again in the season until we faced Sedburgh. Now Sedburgh (an English school) were all massive. They were all the same height as our biggest guy. So, we tried the tactic, and, believe me, we tried. But this time it didn't work. By the 3rd minute, all our guys were speechless, we didn't know what to do, but we carried on hard.



By the last minute of the game, after being unbeaten all season, we were drawing, and the biggest player from Sedburgh was running down the wing at our smallest winger. All I could think of at the time was that most of our players could make that tackle, surely, he could. But he missed it and Sedburgh won. We were all devastated and annoyed at the player that missed the tackle. And I think this would be the perfect point to remember the quote from Atticus Finch, if I stepped into his shoes, with a player around a foot taller than me running right at me, would I have made it?

And the answer to that is no. I wouldn't have. And looking back on it now it's stupid to think that any of us really cared that he missed it. We were all new to it and even now, in Form III, we all make mistakes, but who really cares? As long as you learn from them by looking at the situation from his perspective, jumping into his skin and walking around in it, we certainly acknowledge something.



Now as a guy who is a fairly above average height, but not with that massive advantage, facing people up to 6'4, that guy's perspective is now reality for a lot of us, including me. My opinion is that if you treat every opportunity with honesty and pride, you'll have a greater understanding of yourself and those who surround you and, maybe, just maybe, think of Atticus Finch before you make a decision about a situation.

It could change everything.

Game, Set, Match

Olivia Smart (FVI)

If Emma Raducanu's name had a question mark next to it at the start of the year, you've certainly heard of her now. Amidst the COVID 19 pandemic a new star has been born: an 18-year-old schoolgirl from Bromley. She has gone from playing on the local park courts with her parents at the age of 5, to winning grand slams and smashing records. After she emerged into the public eye many critics had great hope for her future in the sport, but she has already gone beyond what many thought was possible.

Back in the summer the British public tentatively watched, as Emma shared media attention with England's success at the Euros, becoming the last Briton standing in the singles draw at Wimbledon. Making her the youngest British woman to reach the last 16 on home turf ever, as she beat two top-50 opponents, Marketa Vondrousova and Sorana Cirstea. Unfortunately, physical and mental pressure overwhelmed Raducanu forcing her to retire. But this was only the start of this overnight sensation's journey.



She only came back stronger. Ending a forty-four-year wait: forty-four years since a British woman has achieved Grand Slam success. Astonishing, unbelievable, ridiculous; no words can explain what Raducanu has achieved. Her tickets were booked to return home two weeks earlier as surely there was no way she would even make it to the first round? Or so she thought. Being a new face in the tennis circuit, Emma had to fight through a gruesome set of qualifiers to even obtain a place in the main draw- a challenge she overcame without even dropping a set.

Having overcome any curveballs that came her way, Emma confidently strode onto the Arthur Ashe stadium, unfazed by the 24,000 glaring eyes- the majority of which were in support of her opponent, Leylah Fernandez. The stuff of dreams, the US Open final and Emma continued to do what she does best. Digging herself out of 0-30 down games, with an unaffected attacking game, she grew in confidence and managed to put herself on top. The first set closed with a fist bump and roar of "come on" the crowd jumped from their seats, as she began to grow on the crowd and win them onto her side.

Although it was not all plain sailing, Fernandez found a break in the second set, building momentum and adjusting to Raducanu's serves. However, there is a reason that Raducanu had sailed through the tournament

without dropping a set, showing her ability to adapt and increase her tempo- she sat in silence at the changeover, eyes closed calculating the most effective path to success. Nothing was going to stop her, even a leg injury and medical time out couldn't change that perfect forehand that left her opponent stranded, sealing the deal with a 6-4, 6-3 result.

This isn't the last we'll hear of Emma Raducanu. It is about time Andy Murray shares his spot in the history books. The future of women's tennis is bright.

Yes Sir, I Can Boogie

Olivia Smart (FVI)

With play delayed a year amidst the COVID 19 pandemic, the Euros kicked off last June with the Tartan Army being led by Steve Clark at their first big league tournament since 1998. A walk through any town in Scotland was bound to be met with about 50 million Scottish saltires blowing about in the wind, the national costume became the Scotland strip, and the usual dry chat about the weather turned to anticipation over scores and line-ups.

The campaign opened in a match against the Czech Republic - so widely anticipated that schools were offering mandatory viewings - unfortunately this ended in defeat with two balls flying past David Marshall into the net. With Scotland on zero points their journey wasn't over, but there was certainly a mountain to climb.

After losing in their first match, Scotland could not afford any slips ups and stormed to a rain-soaked Wembley to face their oldest rivals, England. The match soon turned into a game of narrow misses: Lyndon Dykes' shot cleared off the line and John Stones' was denied by the posts, resulting in their 115th meeting ending in a draw. It wasn't over yet and, in true Scottish style, they were aiming to reach the last 16 with the hardest possible route.

This was their last chance, and it was against the 2018 World Cup finalists. 17 minutes in and Croatia took the lead, as Scotland were unable to contain Croatian Midfielders. But after 28 failed attempts at goal as a team Callum McGregor managed to pass the goalie and equalise the game. Steve Clarke's side never stopped battling, and always forced pressure on their opponents; but, ultimately, they were their own worst enemies in defence as they fell victim to the more experienced Croatian side with a 3-1 loss.

The Tartan Army certainly never lost any of their fans after their outing to the Euros and managed from a long line of Scottish teams to reinstall the hope and dreams of success into this country, offering a distraction from the media and dreaded pandemic. And we all hope the Scottish team can continue to boogie their way to more major tournaments in the future.

New Sports at the Olympics

Isla Cooper (FI)

After a year of delays, Tokyo 2020 was underway. And there were five new sports to shake things up. The new sports included: Softball, Baseball, Skateboarding, and Sport Climbing. Some entirely new and some making a second appearance like Softball and Baseball, which were most recently featured in the 2008 Olympics.

Softball:

Softball is a sport similar to Baseball with a difference in equipment, as players use a shorter bat and softer ball. Softball was on the Olympic programme from 1996 to 2008. It was introduced at the 1996 Atlanta Olympics, but was removed from the programme for 2012 and 2016. Although this year's host chose for it to be added for a one-off appearance, along with Baseball. In a closely contested battle, the overall gold went to Japan, silver to the US and bronze to Canada.



Baseball:

A complete classic, Baseball, back again making an appearance on the Tokyo pitches. Despite being a primarily American sport, Japan managed to throw a curveball in to the works stealing the gold from the USA team, and leaving the Dominican Republic sitting at bronze.



Skateboarding:

I think the one takeaway from this Olympics was finding out just how impressive competitive skateboarding is. It is sure to become a firm favourite in the future. Skateboarding

had the biggest age range out of all the Olympic sports as Britain's 12-year-old Sky Brown competed in the same sport as South Africa's 46-year-old Dallas Oberholzer.

For the final men's park the gold medal went to Australia's Keegan Palmer, silver to Brazilian Pedro Barros; America's Cory Juneau was awarded bronze. In the final for the women's park Japan's Sakura Yosozumi won gold, also representing Kokona Hiraki scored silver with 1.02 of a difference in points. Great Britain's Sky Brown was awarded bronze.

The men's street final resulted in Yuto Horigome from Japan going home with gold, Kelvin Hoefler representing Brazil was given silver and America's Jagger Eaton with bronze. The woman's street final finished with Japan's Momiji Nishiya happy with gold, silver to Rayssa Leal representing Brazil and finally bronze was awarded to Japan's Funa Nakayama.



Sport climbing:

The format for the sport climbing consisted of three sets of challenges: lead, speed and bouldering, all testing a variety of skills. Leaving us viewers down at ground level mesmerized by these athletes' acts of defying gravity.

For the women's final scoring gold for Slovenia was Janja Garnbret, going home with silver for Japan was Miho Nonaka and scoring bronze also for Japan was Akiyo Noguchi.

For the men's final it was Alberto Gines Lopez with gold for Spain, Nathaniel Coleman got silver for America and Jakob Schubert scored bronze for Austria.



Now we have to wait another three years to watch some of these amazing sports again, alongside the introduction of breakdancing as an Olympic sport at Paris 2024.

The Great Glen Way

Adam Hill (FIII)

My legs were burning after seventy-five miles of mainly uphill cycling. I was begging for it to be over. And then suddenly appearing almost out of nowhere - the city of Inverness - lying right below the hill that we were racing down. It felt so close. The exhaustion was left behind, I was filled with a new burst of energy. I was so relieved that it was nearly done but also sad that it was over. It had been so challenging. At some parts it felt like we were pushing our bikes up Mount Everest.

Looking back on it now, the hardest part was also one of the most rewarding. At the highest points it had felt like we were the only people in the whole world. The views were amazing, especially looking down to Loch Ness. I remember the sweat pouring off me. There was nothing left in the tank. Nothing left to keep me going. I felt like I could collapse at any point. My legs were like jelly. My arms were aching. I kept telling myself don't give up you will regret it. I knew if I stopped it would just be harder to start again. This part really was the hardest - mentally and physically.

You might be wondering; how did it all start? It started with my dad suggesting we should do a cycle in the summer and that it would have amazing views and we would spend two days doing it. I said "yes." And then the planning begun. We spent hours and hours on different websites finding where we could possibly stay. We had to figure out how many miles we were going to do at each time, and how fast we would have to go to achieve this in two days. As well as deciding which bikes we were going to take and making sure that the bikes were perfect for the terrain. After the first day we realised that after all these countless hours of planning we had still not planned properly for two things. The first being how much food to bring for when we were cycling and secondly where we would take short breaks. On paper this challenge had looked simple, hardly challenging, we thought it would be slightly difficult, but we were wrong. We knew that we were wrong as soon as we stopped cycling after the first day. We were knackered. My legs were in agony. I was struggling to walk up any stairs.

On day one we cycled from the start point which was Fort William to Fort Augustus. Yet again we found out that our planning had gone to waste. We expected the first part of the cycle was going to be mainly flat. Well, we were right that it was flat, but we clearly had picked the wrong day to start - it was blowing a hooley as my Gran would say. There were some stunning parts of the first day. Some of those being: Neptune's Staircase, the view down Loch Ness and, of course, I can't forget the very fast downhill. Me and my dad would agree that the best view of the whole cycle was right at the start. Ben Nevis, towering above any other hill nearby, higher than the clouds.



The second day was much harder. We cycled from Fort Augustus to Inverness. One of the main reasons it was harder was that our legs were already tired. On this day it felt like we were pushing our bikes uphill more than we were cycling in general. At some parts I really did feel like my legs were just going to give in. There were times when I could hardly hear my dad shouting "Keep going Adam. Nearly there." I knew that I just had to get to where we were stopping for lunch before I sat down, or it would just be even harder.

On day two the sweat was rewarded with some more amazing views. Nearer the end of the day the sun was starting to set, and it was beating down on to Loch Ness, which made the surroundings look so bright and vibrant. Also, on day two one of the downhills was so quick that I had to pull my brakes like I had never had too before. In my mind there will always be one thing that beats all these views, the sense of achieving such a difficult thing. When I saw the city of Inverness there was a sense of relief that was released in my body. It was done. All those hard hours of planning that turned out to be very useful, all those pains and aches in my body gone. It was done.

I am very grateful that I had the opportunity to do this and challenge myself as I have learnt so much from it. I am now a lot more resilient and now I know that for sure that if you believe you can do something and really try very hard you can achieve your dreams. After seventy-five miles of cycling, my legs were burning.

Entertainment

From Bach to Kanye West, this year's edition of the Galley discusses some of our favourite artists and films. I would hope that anyone reading this can add a new song to their collection or find a greater appreciation for something they had previously thought of as boring. I certainly have!

In this edition of The Galley and with the upcoming release of a new Beatles film, we have a piece on what to expect from *The Beatles: Get Back!* and an exploration as to why The Beatles' success has lived on for so long. By Hugo Mackay, there is a film review on *Hidden Figures* - a film exploring the relationship between mathematics and race. Isla Cooper has provided a review of one of her favourite films, *The Hunger Games*; and Riley Gray has reviewed *Shang Chi and the Legend of the Ten Rings*.

I hope you enjoy reading these as much as I have. If you come across any interesting films, books, or songs, please don't hesitate to pick up a pen and start writing.



Isabella Pirie (FVI)
Entertainment Editor

The Beatles: A new Bach

Isabella Pirie (FV)

When generations to come look back on the 20th century, who will our Bach, Mozart, or Chopin be? There have been genius composers in the last century, but nobody who has shaken off the view that classical music is stiff or boring. Because of this, music has needed to evolve, and so musicians have absorbed every style around them in an extraordinary way, colliding popular and classical music together. They invigorated the old western tradition and embraced new technologies with enthusiasm. Music could be sophisticated, yet not daunting to those who were not classically trained. The chief architects of this new genre of music were, undoubtedly, the Beatles.

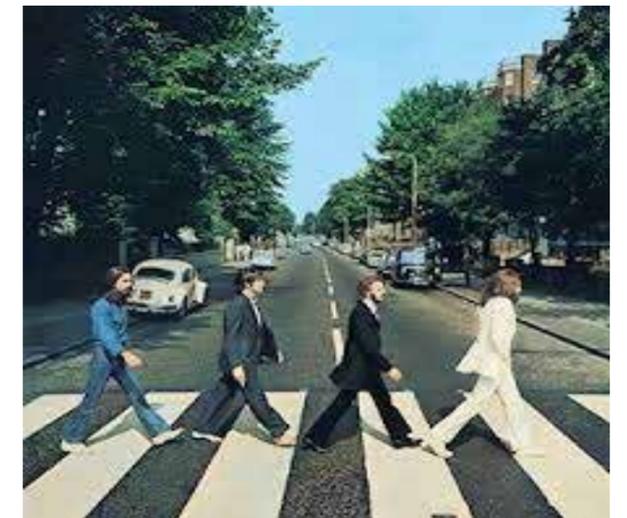


To understand the genius of this four-boy band, it is important to understand the history of the Western Canon. The ancient Greeks, governed by Apollo, played on lyres and the aulos. Pythagoras came up with harmonic series after noticing that when a string exactly half the size of another was plucked, it played a pitch an octave higher. Splitting the string into thirds raised the pitch an octave and a fifth. After the fall of the Roman Empire, medieval music was generally single-melody Latin phrases sung by monks in chapels, hence the term 'a cappella'. The Renaissance brought new technology and musical enlightenment, and melodies began to be played over the top of each other. Composers like Monteverdi embraced this polyphonic style. It was not until 1685 that Bach was born in Germany and changed music through his cello suites and, most notably, the *Well-Tempered Clavier*. These books remain a staple piece of repertoire for pianists, made up of a prelude and fugue in each key, major and minor. It was used to introduce a new tuning system called 'equal temperament', which allowed every key to be played on the same instrument without it having to be retuned. With the creation of the piano in around 1700, composers were able to experiment with dynamics, and got bored of the ornamentation so often found in Baroque music. This became the trigger for the 11-year-old Mozart to front the Classical Era. However, the Romantics wanted to take back some of the complexity that had been left behind with Baroque, while utilising the newly-invented sustain

pedal. Beethoven was the bridge between Classical and Romantic, his later work dripping with tragic harmony and soaring melody lines. The 20th century aimed to forget the past's antique beauty, composers sought to challenge the rules of the past, experimenting with discordance and new technology to create unnatural sounds.

The music of postwar Britain was boring. Everything had been done before, and composers struggled to create something new while balancing the love a listener has for familiarity. Elvis Presley won the hearts of many with his characteristic swing-style Rockabilly and slicked-up quiff, but even he did not bear the beauty of The Beatles. What set The Beatles apart was their ability to invigorate 1950s Rock and Roll with boyish charm and clever harmony. With the help of George Martin, their later songs were able to bring classical composition back into popular music. The Beatles used simple melody lines and classic I-IV-V chord sequences in their songs, but incorporated novel transpositions and drum patterns to invigorate their work.

A key part of The Beatles success was their presence on stage. Paul's flirty looks towards the audience combined with Ringo's characteristic stick swish drew the attention of many. Being from Liverpool, they spoke with comically unusual accents that diluted the almost-solely American media. Their first performance in America at the Ed Sullivan Show was a huge success, despite the boys feeling terrified. They managed to remain calm under lots of pressure, while still making every member of the audience feel special. They also influenced lots of mainstream culture through their fashion and hair. Slim-fit suits and mop-top hair became fashionable, as did bright colours during their psychedelic era.



The Beatles were constantly reinventing themselves, every album had a distinctive style. They invented whole genres of music, like heavy rock and the psychedelic era, in an effort not to repeat themselves. They were never satisfied by following a formula to make a hit song. But beyond that, they were constantly trying new sounds, finding new instruments, changing existing production standards. They pushed their producer George Martin beyond the limits of what was current music, Lennon told him he wanted

his voice on Tomorrow Never Knows to sound like “the Dalai Lama singing from a mountaintop”. Yet they never sounded pretend or tiring. First generation fans waited with excitement to hear what new sounds they would present on their next album or single. You can hear the musical progression in every single one, from Love Me Do to The End.

George Martin, often referred to as The Fifth Beatle, brought classical music into their composition. The Beatles had no formal education in music, although McCartney's father was a musician. It was Martin who persuaded the Beatles to weave elements of classical composition into their music. He stole Handel's Passacaglia for the solo in In My Life and orchestrated a trumpet-cello accompaniment for Strawberry Fields Forever. Martin also encouraged the band to experiment with sound — playing tapes backward or distorting the speed. This kind of experimentation allowed the Beatles to change the face of music, forever.

Music now takes for granted the foundations put in place by the Beatles. To an ear having been exposed only to current music, the Beatles sound terribly unoriginal. But contemporary music is still to invent something that the Beatles have not already done. They changed music by combining the awe inspired by classical sounds, with the ‘easy-goingness’ of pop music at the time. A listener can not help but smile and dance when they hear the familiar guitar riff of Twist and Shout. Despite only producing music together for seven years, they have left half a century's worth of impact. The Beatles still live on because they still give us that most amazing of feelings: the apprehension of a happiness that we can hold, like a hand.



Discovered Figures

Hugo Mackay (FVI)

Hidden Figures discovers to its audience the lesser known contribution to aerospace advancement during the space-race made by Black women. Set in 1961 America — Hampton, Virginia — the film explores the prime issues of the time and place, namely sexism and racism, through the stories of three female African-American geniuses: Mary Jackson, Dorothy Vaughan, and Katherine Goble.

The film brilliantly interweaves scenes of truly inspiring mathematical creativity and frustrating dramatic irony that elicits the audience's sense of the wrongness of discrimination. One such scene is that of the symbolic tearing down of the coloured-white distinction toilet signs. This small scale incident demonstrates the power society must disintegrate segregation when different races and sexes fight, or rather work together for positive change.

It was ultimately the exemplary decision to recognize these brilliant female minds that allowed Americans to make space travel history. This is what true leadership looks like.

Hidden Figures is about x-ray vision — looking not only at the mathematics, but through it, to the hidden patterns underlying the concepts, and looking through someone's skin and sex to give them the chance they deserve to change the world for the better.



The Hunger Games

Isla Cooper (FI)

The Hunger Games is an incredibly popular book and movie franchise that many know and love. The Hunger Games includes twelve districts: District 1, District 2, District 3 etc. Then there is the Capitol and the destroyed District 13. Katniss Everdeen is the main character with the love interest of Peeta Mellark.

The story begins at the reaping where Katniss' sister Prim is chosen, but Katniss takes her place, fearing that her sister's life would be lost. The male tribute chosen for District 12 is Peeta Mellark.

Katniss and Peeta must prepare to say goodbye to their families and leave for months. They are taken to the Justice Building and are given one hour to say goodbye to their loved ones. After the hour, they are taken to the Capitol to test their strengths, and are rated on a system from one to twelve. Katniss was the last to be judged and most of the judges were drunk, neither watching nor listening. Katniss aimed at the apple in the pig's mouth and it pierced right through. The judges obviously liked Katniss because she scored an eleven, the highest score of all the tributes.

They arrived at the arena and so the games begun. Katniss ran for a backpack that held one thin black sleeping bag that reflects body heat, a pack of crackers, dried beef strips, a bottle of iodine, wooden matches, a bit of coiled wire, night vision glasses, and an empty black water bottle. With these, she set off to start hiking instead of fighting. After dark, someone started a fire nearby, and it was not long before a pack of Career Tributes arrived to kill the offender. To Katniss's shock, Peeta is with them.

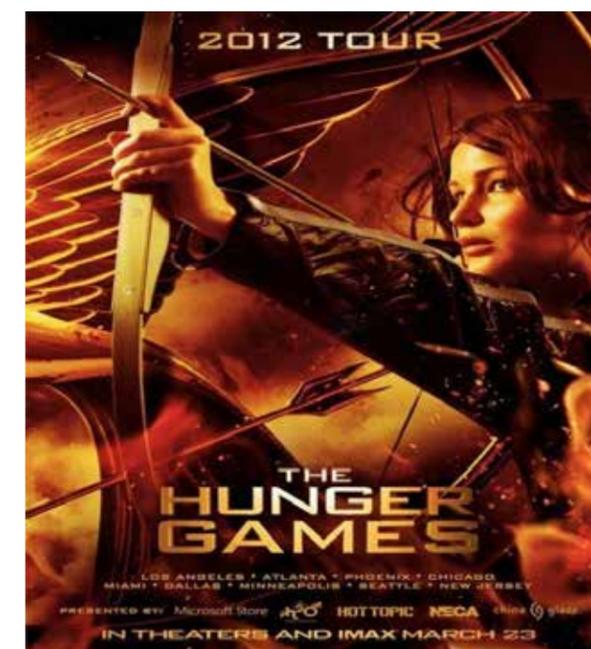
The next day, Katniss set off in search of water. She walked for hours and even collapsed from exhaustion, but after many hours she finds a stream. She is woken in the night by a wall of fire moving towards her, and as she runs away many fireballs fall around her, one grazing her leg, injuring her.

That night while she hides in a tree from the pack of Careers below her, she realises a girl named Rue from District 11 is in the same situation as her, except Rue did not have a nest of tracker jacker wasps (which were designed by the Capitol to be lethal) above her (which Katniss didn't notice until Rue pointed it out to her). She hacked the nest off the branch, dropping it onto the Careers below her. Two die from the stings and the rest scatter. Katniss is stung a few times in the process.

While running away she realises one of the casualties had a bow and a few arrows with them. As she retrieves the bow and arrows, Peeta arrives at the same time as her, yelling out just in time before Cato, an extremely dangerous Career from District 2, tries to attack her. Peeta stops him and Katniss gets away. She passes out in a ditch shortly after. There is not much action now unless you count Rue's and a couple of other deaths. Katniss goes looking for Peeta as, now, two tributes from the same district can be declared winners. It takes her a day, but she finds him.

He's terribly injured and can barely walk but Katniss helps him to a cave for shelter. Thinking Peeta might die from the injury, Katniss impulsively kisses him. A moment later she hears a noise outside when she goes to investigate, she found a pot of broth sent from Haymitch to say 'Good, now keep it up'. Another announcement is made, this time saying each tribute will find an item they desperately need at the Cornucopia. Katniss knows that means medicine for Peeta's leg, but Peeta thinks it's too dangerous and doesn't want Katniss to go. Using a sleep syrup sent from Haymitch, Katniss knocks him out.

Katniss tries to flee and take the item marked for District 12 at the Cornucopia, but she gets into a battle with a female tribute. When Thresh, the male tribute from District 11 who came to the Games with Rue, sees the tribute poised to kill her, he kills the girl instead. Katniss is spared because of her kindness toward Rue, and she returned safely to the cave. Just before passing out, she injected Peeta with the medicine. They stay there for a few days while it rains outside, and Katniss and Peeta's romance develops during this time.



Cato comes barrelling toward them after Katniss left Peeta to forage by the lake. He, on the other hand, unexpectedly sprints right past them. Katniss notices weird things pursuing him, and the group rushes to the Cornucopia to climb up. Katniss recognises the creatures as mutant wolves created by the Capitol, and she understands they are the dead tributes who have been transformed into these monsters. Cato attacks Peeta, taking advantage of the circumstances, but Katniss and Peeta manage to push him over the edge. The animals overwhelm him, but he survives for hours thanks to the body armour he's wearing, until Katniss shoots him out of pity. Just when Katniss and Peeta think they've won, it's announced that there can only be one winner once more. Katniss realises that neither she nor Peeta will murder the other, so she removes the poisonous berries. The announcer calls for them to stop and declares them both winners just as she and Peeta pop them into their mouths.

They return to the Training Centre, where Katniss isolated for days to recover. Haymitch cautions her that she is in danger when she is let free. The Capitol saw her berry prank as an act of defiance, therefore Katniss must persuade everyone that she was desperate to save Peeta and not rebellious, or her entire family could be jeopardised. Peeta, who lost his leg and now wears a prosthetic, is reunited with her in their final interview. Peeta is perplexed when Haymitch tells her she did excellently, and Katniss explains everything, including the romance tactic used throughout the Games. Peeta is angry and hurt, but as they arrive back in District 12, they hold hands one more time to greet the crowd and cameras.

A Review of *Shang Chi and the Legend of the Ten Rings*

Riley Gray (FV)

'Shang Chi and the legend of the ten rings' is a mystical tour of dynamic martial arts. Simi Liu plays the once slacker, now saviour of the earth whose secret past makes him a combat master. As well as Simi Liu there is a large cast of supporting actors, such as the returning Ben Kingsley as Trevor Slattery, the actor who posed as the false Mandarin in Iron Man 3 and Shang Chi's father, Xu Wenwu who is the sympathetic villain of the film. The film is a commercial hit and one of the best and most action-filled marvel movies of recent times.



The film begins with Shang Chi's father Xu Wenwu leading a powerful army and kingdom thousands of years ago. He is all powerful due to the ten rings that he possesses that give him magical and mystical ferocity in battle. The rings also allow him to become immortal. On his quest to find a village that is home to many magical creatures, he meets the gate keeper to the village of Shang Chi who moved to America as a child and has changed his name to Shaun to

keep his warrior identity secret from his peers as well as his best friend and colleague, Katy. While the two ride a bus to work, a fight ensues between the titular hero and Razor Fist, a member of the Ten Rings and Associate of Shang Chi's father. This fight reveals Shang Chi's past and his martial arts power to the world and to Katy, who is surprised by this.

The two make the trip to find Shang Chi's sister, Xia Ling, who is reluctant to meet as Shaun left her on her own as a child and now, she has become free and started an illegal fighting ring of monsters and martial artists in Macau. It is here where we first meet Death Dealer, the head henchman of Xu Wenwu. This leads into the most action packed and dynamic scene in the movie where the three face off on the scaffolds outside a skyscraper; they lose the battle and are escorted back to the compound of the Ten Rings and Xu Wenwu tells Shang Chi about his fear that Shang Chi's mother is locked in the town where they first met. Shaun does not believe this and once met with the part time Mandarin, Trevor Slattery, they escape to the town of Ta Lo where Wenwu is planning to attack the scenes. After this there would be too many spoilers and so I would urge you to watch the film.

The movie ends with two post credit scenes depicting Wong from Doctor Strange, Bruce Banner and Captain Marvel discussing the beginnings of the all-powerful rings. This movie is one of the best received marvel movie to date, grossing 431.3 million dollars and gaining 7.5 stars on imdb. The film is a heartfelt story of family, grief, and love. Yet at the same time there is action, monsters, and impressive set pieces. The film manages to juggle these themes incredibly well for an action block buster. Those who were watching for the adrenaline of action would be happy with the result of the movie and those looking for something more emotional and deeper would also leave the cinema feeling catered to.

What to Expect from *The Beatles: Get Back*

Lucas Pirie (FI)

I am looking forward to the movie *Get Back* coming out in November, as it is a very new type of movie for the Beatles. The movie is comprised of tens of junk-tapes that producers found. These tapes show how the Beatles treated each other and how they worked in a band. Originally there were hundreds of tapes with hours of footage, which have now been condensed into just a few.

I began to love playing the drums through lockdown, and The Beatles' catalogue is what really helped me. I made it a challenge to learn one new song every couple of days, mastering Ringo's characteristic swish. I think that musicians, but especially drummers, can learn lots from this film about inventive playing styles and working together as a team.